

10 CFR 50.90

RA-08-087
September 22, 2008U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001Oyster Creek Nuclear Generating Station
Facility Operating License No. DPR-16
Docket No. 50-219

Subject: Response to Draft Request for Additional Information – AmerGen Application to Revise Technical Specifications Regarding Secondary Containment Operability Requirements During Refueling (TSCR 338)

- References:
- 1) Letter from Pamela B. Cowan to U. S. Nuclear Regulatory Commission Technical Specification Change Request 338 - Secondary Containment Operability Requirements During Refueling, dated November 2, 2007
 - 2) Letter from Pamela B. Cowan to U. S. Nuclear Regulatory Commission Supplemental Response – AmerGen Application to Revise Technical Specifications Regarding Secondary Containment Operability Requirements During Refueling, dated July 3, 2008
 - 3) U. S. Nuclear Regulatory Commission facsimile dated September 11, 2008, Draft Request for Additional Information (RAI) Regarding Proposed License Amendment – Secondary Containment Operability Requirements During Refueling, Oyster Creek Nuclear Generating Station (Docket No. 50-219)

By letter dated November 2, 2007 (Reference 1), AmerGen Energy Company, LLC (AmerGen) submitted a request to revise the Oyster Creek Nuclear Generating Station (OCNGS) Technical Specifications (TS) to modify the requirements for secondary containment operability during handling of irradiated fuel with sufficient decay.

By letter dated July 3, 2008 (Reference 2), AmerGen provided supplemental information in support of the referenced TS change request.

Subsequently, on September 11, 2008, the U. S. Nuclear Regulatory Commission (NRC) issued a Draft Request for Additional Information (RAI) via facsimile (Reference 3). The NRC identified two questions in the draft RAI in which additional information was requested regarding the control of certain secondary containment penetrations and openings. Attachment 1 to this letter restates the NRC's questions followed by AmerGen's response.

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AmerGen has concluded that the information provided in this response does not impact the conclusions of the: 1) Technical Analysis, 2) No Significant Hazards Consideration under the standards set forth in 10 CFR 50.92(c), or 3) Environmental Consideration as provided in the original submittal (Reference 1).

Attachment 2 provides a summary of the regulatory commitments made in this submittal.

If any additional information is needed, please contact Mr. Richard Gropp at 610-765-5557.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 22nd day of September 2008.

Respectfully,

PB 

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

Attachment 1: Response to NRC Draft Request for Additional Information

Attachment 2: List of Regulatory Commitments

cc: Regional Administrator - NRC Region I
NRC Senior Resident Inspector - OCNGS
NRC Project Manager, NRR - OCNGS
Director, Bureau of Nuclear Engineering, New Jersey Department of Environmental
Protection

ATTACHMENT 1

Oyster Creek Nuclear Generating Station

Technical Specifications Change Request 338 –
Response to NRC Draft Request for Additional Information
Secondary Containment Operability Requirements During Refueling

Background

By letter dated November 2, 2007 (Reference 1), AmerGen Energy Company, LLC (AmerGen) submitted a request to revise the Oyster Creek Nuclear Generating Station (OCNGS) Technical Specifications (TS) to modify the requirements for secondary containment operability during handling of irradiated fuel with sufficient decay.

By facsimile on September 11, 2008, the U. S. Nuclear Regulatory Commission (NRC) transmitted draft Request for Additional Information (RAI) questions related to the control of certain secondary containment penetrations and openings. The specific questions are restated below followed by AmerGen's response.

NRC Question 1

In the July 3, 2008 re-analysis of the OC Alternate Source Term (AST) fuel handling accident (FHA), you determined that the original bounding dose consequence requirements of 10CFR50.67 and the intent of technical specification task force improved standard technical specifications change traveler (TSTF-51) could not be met. After correcting the calculation errors from the original submittal and revising its analysis of record, it was determined that four of the nine analyzed release points could no longer be opened during movement of irradiated fuel even after a 24-hour decay period as proposed in the original license amendment request. Secondary containment operability meets Criterion 3 of 10CFR50.36, "Technical specifications," and therefore must be established and maintained in a manner consistent with the licensee's analysis of record. As such, the TSs proposed in the original LAR, which were not amended in the July 3, 2008 supplement, are insufficient for the staff to find that the licensee has provided reasonable assurance that in the unlikely event of a FHA when secondary containment is inoperable, the dose consequences will meet NRC regulatory requirements. Therefore, the NRC staff requests that the licensee submit additional information that provides sound technical, regulatory, and licensing bases for the proposed changes.

Response

AmerGen will update the UFSAR to include the acceptable secondary containment penetrations and openings that could be breached/opened while moving irradiated fuel with sufficient decay. Sufficient decay is defined in the proposed TS as 24 hours. Prior to this time, Secondary Containment operability is required for movement of any irradiated fuel. In addition to this licensing basis documentation, such penetrations and openings are procedurally controlled. The currently analyzed and submitted limiting release path is the Reactor Building diffuse area source. Any additional penetrations and openings not included in the UFSAR (as outlined in Table 1 below in response to NRC Question 2) must be analyzed in accordance with applicable regulatory requirements (i.e., 10CFR50.59) before relaxation of secondary containment requirements for movement of irradiated fuel with sufficient decay. The method of evaluation used will demonstrate that radiological consequences associated with the Fuel Handling Accident (FHA) do not exceed applicable regulatory dose limits.

NRC Question 2

In the original submittal, dated November 2, 2007, on page 8 of 22 of Enclosure 1 Amergen stated that, "Except for the stack tunnel door (for which disassembly was planned and evaluated) and the flanged commodities penetrations (typically opened during outages and which are evaluated here), the secondary containment boundary cannot be breached in other locations without further evaluation." This statement appears to be contrary to the requested TS change(s) as described in Enclosure 2 of the November 2, 2007 submittal. Specifically, on page 3.5-12, the OC TS Bases state, "Due to radioactive decay, during fuel handling operations the secondary containment isolation valves are only required to be OPERABLE when handling, RECENTLY IRRADIATED FUEL, or during operations with the potential to drain the reactor vessel." In order to clarify this apparent discrepancy, the NRC staff requests that the licensee provide a list of all secondary containment penetrations that were not analyzed as part of this submittal. Additionally, the staff requests that the licensee either perform the appropriate analysis to demonstrate that they are bounded by the definition for RECENTLY IRRADIATED FUEL in support of FHA dose consequence or describe how each of these penetrations will be maintained OPERABLE during fuel handling conditions. The licensee must also either explain how existing TSs will ensure this is accomplished or, as necessary, propose TS changes that would capture these requirements.

Response

The original OCNCS submittal dated November 2, 2007 stated, "Except for the stack tunnel door (for which disassembly was planned and evaluated) and the flanged commodities penetrations (typically opened during outages and which are evaluated here), the secondary containment boundary cannot be breached in other locations without further evaluation." Further evaluation as submitted July 3, 2008, yielded different acceptable penetrations that could be breached while moving irradiated fuel with sufficient decay. In order to differentiate acceptable penetrations from penetrations that cannot be opened, OCNCS has evaluated secondary containment penetrations and openings that may be opened while moving irradiated fuel with sufficient decay, even in the unlikely event of a FHA. Analysis of secondary containment penetrations and openings has determined that several locations exist where dose consequences would exceed regulatory limits if opened during movement of irradiated fuel with sufficient decay. Therefore, Table 1 lists those penetrations and openings that can be open during movement of irradiated fuel with sufficient decay.

The analyzed release pathways depicted in Table 1 below are the only evaluated penetrations and openings acceptable to be opened during movement of irradiated fuel with sufficient decay. Other potential openings that would modify secondary containment operability during movement of irradiated fuel with sufficient decay must be analyzed in accordance with the regulatory requirements specified in 10CFR50.59. These controls will ensure that the method of evaluation described in the UFSAR is not changed or altered.

Table 1
List of Acceptable Release Locations for FHA Analysis

Item	Description	Comments
1	RB Roof Hatch	X/Q values calculated and doses are acceptable.
2	RB grade-level access at south east corner of RB	X/Q values not specifically calculated; however, X/Q is bounded by RB commodities penetration (Item 9), and therefore doses are acceptable.
3	Main stack exhaust fans and ductwork at base of main stack (also known as the Stack Tunnel Door)	X/Q values calculated and doses are acceptable.
4	RB entrance (D/W Access Facility)	X/Q values calculated and doses are acceptable.
5	RB personnel access airlock on east wall of 23' 6" elevation RB wall (near columns RA and R5)	X/Q values calculated and doses are acceptable.
6	RB Truck Airlock (at column RA, between columns R2 and R3)	X/Q values not specifically calculated; however, X/Q bounded by RB commodities penetration on south RB wall (Item 9), RB personnel airlock on east wall (Item 5), and RB Roof Hatch (Item 1), and therefore the doses are acceptable.
7	Isolation Condenser (IC) exhaust (east wall of RB)	X/Q values not specifically calculated; however, X/Q bounded by the RB Roof Hatch (Item 1), and therefore the doses are acceptable.
8	RB diffuse release	X/Q values calculated and doses are acceptable. This is the bounding value.
9	RB commodities penetration on south RB wall (23' 6" elev.)	X/Q values calculated and doses are acceptable.

Note: The Comments column indicates whether or not the X/Q values were calculated as part of this Technical Specification Change Request.

ATTACHMENT 2

LIST OF COMMITMENTS

The following table identifies those actions committed to by AmerGen Energy Company, LLC (AmerGen) in this document. Any other statements in this submittal are provided for information purposes and are not considered to be commitments.

<u>COMMITMENT</u>	COMMITTED DATE OR "OUTAGE"	<u>COMMITMENT TYPE</u>	
		ONE-TIME ACTION (Yes/No)	PROGRAMMATIC (Yes/No)
The OCNCS UFSAR will be revised to include acceptable release locations with respect to the FHA. Any other release pathways not specifically identified must be appropriately evaluated with specific emphasis on methodology and consequences in accordance with criteria in 10CFR50.59.	Upon implementation of the Approved License Amendment	No	Yes