

NRC 2003-0070

10 CFR 50, Appendix A

August 11, 2003

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

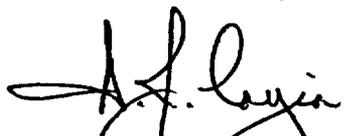
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-266 AND 50-301  
LICENSE NOS. DPR-24 AND DPR-27  
GENERIC LETTER 2003-01: CONTROL ROOM HABITABILITY – 60-DAY RESPONSE

The Nuclear Regulatory Commission (NRC) issued the subject generic letter (GL) on June 12, 2003. The GL contains a 180-day requested response for specific information. Addressees that cannot provide the information or cannot meet the requested completion date are requested to submit a written response within 60 days to address any proposed alternative course of action, including the basis for acceptability and the schedule for completion of the alternative course of action. Nuclear Management Company, LLC (NMC) is unable to meet the completion date for all the requested information for the Point Beach Nuclear Plant (PBNP). Accordingly, NMC is providing the requested proposed alternative course of action in Attachment 1.

NMC makes the following commitments:

1. NMC will provide a schedule to perform an acceptable surveillance methodology that verifies integrity of the control room envelope (CRE) (e.g., ASTM E741) and the requested response to GL 2003-01, item 1(a), for PBNP by December 2003.
2. NMC will provide a schedule for the development of technical specification changes to reference an acceptable surveillance methodology (and any associated modifications to the CRE) to support requested information in GL 2003-01, item 1(c), for PBNP by December 2003.

The actions associated with the two commitments listed above will be consistent with PBNP License Amendment Request 234, submitted to NRC on March 27, 2003, and the three commitments provided therein.

  
A. J. Cayia  
Site Vice President

Attachment 1: GL 2003-01 - 60-DAY RESPONSE

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cc: Regional Administrator, Region III, USNRC  
Project Manager, Point Beach Nuclear Plant, NRR, USNRC  
NRC Resident Inspector - Point Beach Nuclear Plant  
PSCW

**ATTACHMENT 1**

**NUCLEAR MANAGEMENT COMPANY  
POINT BEACH NUCLEAR PLANT  
DOCKETS 50-266 AND 50-301**

**GENERIC LETTER 2003-01:  
CONTROL ROOM HABITABILITY  
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**60-DAY RESPONSE**

**Requested Information**

*Addressees are requested to provide the following information within 180 days of the date of this letter.*

*If an addressee cannot provide the information or cannot meet the requested completion date, the addressee should submit a written response indicating this within 60 days of the date of this generic letter. The response should address any proposed alternative course of action the addressee proposes to take, including the basis for acceptability of the proposed alternative course of action and the schedule for completion of the alternative course of action.*

1. *Provide confirmation that your facility's control room meets the applicable habitability regulatory requirements (e.g., GDC 1, 3, 4, 5, and 19) and that the Control Room habitability systems (CRHSs) are designed, constructed, configured, operated, and maintained in accordance with the facility's design and licensing bases. Emphasis should be placed on confirming:
  - (a) *That the most limiting unfiltered inleakage into your Control Room Envelope (and the filtered inleakage if applicable) is no more than the value assumed in your design basis radiological analyses for control room habitability. Describe how and when you performed the analyses, test, and measurements for this confirmation.**

**Response**

Nuclear Management Company, LLC (NMC) has determined that not all of the information requested, to confirm that the control room meets the applicable habitability regulatory requirements, can be provided within the requested time frame. In particular, the request to provide confirmation that the unfiltered inleakage is no more than the value assumed in the limiting design basis radiological analyses for control room habitability cannot be provided until an acceptable test methodology can be performed for the Point Beach Nuclear Plant (PBNP).

**Basis for Acceptability (Current Configuration)**

The current inleakage value is based on the premise that the pressurization of the control room to all adjacent spaces provided by the Control Room Emergency Filtration System (CREFS) serves to maintain radiological habitability. In addition, a significant amount of conservatism is factored into the Control Room Habitability analysis as it relates to the amount of assumed containment leakage, the current method used to determine atmospheric dispersion factors, the amount of emergency core cooling system (ECCS) leakage, control room occupancy, and the effectiveness of potassium iodide (KI). Furthermore, the availability of compensatory measures in the Control Room that are not credited in the analysis, such as self-contained breathing apparatus (SCBA), supplied air, and protective clothing and eye glasses, would provide additional protection to the operators from exposure to any radionuclides present. It is therefore reasonable to assume that the Control Room Envelope (CRE) would be maintained habitable in the event of a design basis accident.

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**Modifications Completed Recently**

The following modifications were recently completed to reduce the amount of unfiltered inleakage into the CRE during the emergency mode of operation of the Control Room Ventilation System (VNCR). These modifications provide the supporting basis for acceptability and add additional margin to the Control Room Operator Dose Calculation. The dampers on the exterior of the CRE have been replaced with bubble-tight dampers in the calendar years 2001 and 2002. A large portion of the Control Room Ventilation System ductwork has been hardcasted. Also, a smaller portion of Cable Spreading Room Ventilation (VNCSR) ductwork has been hardcasted. Control Room door seals and VNCR duct access door seals have been replaced and/or upgraded.

**Proposed Alternative Course of Action**

The proposed alternative course of action will first require quantifying unfiltered inleakage using an acceptable methodology that verifies integrity of the CRE (e.g., ASTM E741) during the emergency mode of VNCR operation. Until such testing can be performed, the most limiting unfiltered inleakage cannot be determined for all potential scenarios. If needed, PBNP would resubmit a Control Room Operator Dose Calculation after unfiltered inleakage has been quantified.

Completion of the test procedure used to quantify unfiltered inleakage (proposed alternative course of action) will have no affect (positive or negative) on habitability.

NMC will provide a schedule to perform an acceptable surveillance methodology that verifies integrity of CRE (e.g., ASTM E741) and the requested response to GL 2003-01, item 1(a), for PBNP by December 2003.

**Requested Information**

*(b) That the most limiting inleakage into your CRE is incorporated into your hazardous chemical assessments. This inleakage may differ from the value assumed in your design basis radiological analyses. Also, confirm that the reactor control capability is maintained from either the control room or the alternate shutdown panel in the event of smoke.*

**Response**

Hazardous chemical and toxic gas assessment is not part of the licensing basis for Point Beach Nuclear Plant. Based on the information provided by PBNP to the NRC, in response to NUREG 0737, Step III.D.3.4, an area survey was conducted to identify sources of hazardous chemicals or toxic gases onsite or within five miles. The survey was conducted in accordance with the criteria established by NRC Regulatory Guides RG-1.70 and RG-1.78 and the Standard Review Plan. The PBNP response stated that toxic gas accident analysis for potential hazardous chemical releases on or within five miles of the plant site is not necessary for PBNP.

Reactor shutdown capability would be maintained in the control room due to the design features of the ventilation system. These features include the capability to exhaust smoke from the control room and computer room (both part of the CRE, or from the cable spreading room

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through dedicated smoke and heat vent fan. The associated dampers for this evolution are interlocked so that only one room can be lined up for smoke and heat removal at a time. This operation precludes smoke damage to the air filters in the recirculation system. The controls for smoke and heat removal are from panel C-67A, which is located in the work control center adjacent to the control room. The computer room has supplementary air conditioning units to assist the normal control room ventilation system in maintaining computer room temperatures below equipment design limits. The computer room is also equipped with a Halon fire suppression system. Activation of this system automatically closes dampers that isolate the computer room from the rest of the control room ventilation system and deenergizes the supplementary air conditioning units. The ventilation system filter has a manually initiated water suppression system to mitigate a fire in the charcoal bed.

**Requested Information**

*(c) That your technical specifications verify the integrity of the CRE, and the assumed leakage rates of potentially contaminated air. If you currently have a  $\Delta P$  surveillance requirement to demonstrate CRE integrity, provide the basis for your conclusion that it remains adequate to demonstrate CRE integrity in light of the ASTM E741 testing results. If you conclude that your  $\Delta P$  surveillance requirement is no longer adequate, provide a schedule for: 1) revising the surveillance requirement in your technical specification to reference an acceptable surveillance methodology (e.g., ASTM E741), and 2) making any necessary modifications to your CRE so that compliance with your new surveillance requirement can be demonstrated.*

*If your facility does not currently have a technical specification surveillance requirement for your CRE integrity, explain how and at what frequency you confirm your CRE integrity and why this is adequate to demonstrate CRE integrity.*

**Response**

PBNP Technical Specifications (TS) currently contain a  $\Delta P$  surveillance requirement as well as ventilation filtration program requirements that verify the integrity of the CRE. These surveillances provide reasonable assurance that the systems required to maintain the control room habitable in the event of an accident will operate as expected, such that operators can safely remain in the room to control the plant. However, NMC has concluded that the  $\Delta P$  surveillance requirement is no longer adequate to demonstrate CRE integrity in light of industry ASTM E741 testing results.

PBNP staff have conducted an extensive and detailed assessment of the vulnerabilities of the CRE to unfiltered leakage. Modifications have been completed to reduce or eliminate these vulnerabilities (see "Modifications Completed Recently" section in the response to question 1(a) above).

NMC will provide a schedule for the development of technical specification changes to reference an acceptable surveillance methodology (and any associated modifications to the CRE) to support requested information in GL 2003-01, item 1(c), for PBNP by December 2003.

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**Requested Information**

2. *If you currently use compensatory measures to demonstrate control room habitability, describe the compensatory measures at your facility and the corrective actions needed to retire these compensatory measures.*

**Response**

No compensatory measures are currently being used at Point Beach Nuclear Plant.

**Requested Information**

3. *If you believe that your facility is not required to meet either the GDC, the draft GDC, or the "Principle Design Criteria" regarding control room habitability, in addition to responding to 1 and 2 above, provide documentation (e.g., Preliminary Safety Analysis Report, Final Safety Analysis Report sections, or correspondence) of the basis for this conclusion and identify your actual requirements.*

**Response**

This request does not apply to Point Beach Nuclear Plant.

bcc: R. Amundson  
J. P. Cowan  
J. Gadzala  
J. N. Jensen  
M. K. Nazar  
T. Sexton  
File

G. P. Arent  
K. M. Duescher (2)  
R. R. Grigg (P460)  
T. C. Kendall  
L. A. Schofield (OSRC)  
D. A. Weaver (P346)

A. J. Cayia  
D. P. Fadel  
M. E. Holzmann  
S. McLean  
S. L. Scott  
E. J. Weinkam III