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✓ U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Docket Nos. 50-325 and 50-324/License Nos. DPR-71 and DPR-62
Sixty-Day Response to Generic Letter 2003-01
Control Room Habitability

Ladies and Gentlemen:

On June 12, 2003, the NRC issued Generic Letter 2003-01, "Control Room Habitability." Generic Letter 2003-01 requested licensees to submit information demonstrating that control rooms comply with the current licensing and design bases, and applicable regulatory requirements, and that suitable design, maintenance and testing control measures are in place for maintaining this compliance. The generic letter requests that this information be provided within 180-days or, if unable to meet this schedule, notification be made within 60-days.

Progress Energy Carolinas, Inc. is not able to provide a complete response to Generic Letter 2003-01 within 180-days. Enclosure 1 identifies the specific information that will not be available in the 180-day response and provides an alternative schedule with supporting justification. Other requested information will be provided in the 180-day response.

Enclosure 2 provides a list of regulatory commitments made in this letter. Please refer any questions regarding this submittal to Mr. Edward T. O'Neil, Manager - Support Services, at (910) 457-3512.

Sincerely,

For John S. Keenan

GLM/glm

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Enclosure:

1. Alternative Schedule for Responding to Generic Letter 2003-01
2. List of Regulatory Commitments

cc:

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Alternative Schedule for Responding to Generic Letter 2003-01

Background

On June 12, 2003, the NRC issued Generic Letter 2003-01, "Control Room Habitability." Generic Letter 2003-01 requested licensees to submit information demonstrating that control rooms comply with the current licensing and design bases, and applicable regulatory requirements, and that suitable design, maintenance and testing control measures are in place for maintaining this compliance. The generic letter requests that this information be provided within 180-days or, if unable to meet this schedule, notification be made within 60-days.

Requested Information

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 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 CRE (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, tests, and measurements for this confirmation.
 - (b) That the most limiting unfiltered 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.
 - (c) That your technical specifications verify the integrity of the CRE, and the assumed inleakage rates of potentially contaminated air. If you currently have a ΔP 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 ΔP 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.

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.
3. If you believe that your facility is not required to meet either the GDC, the draft GDC, or the "Principal 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.

Alternative Schedule

In order to specifically quantify unfiltered inleakage and provide the confirmations requested in Items 1(a) and 1(b) of the information requested in Generic Letter 2003-01, Progress Energy Carolinas, Inc. (PEC) will perform control room air inleakage testing. However, this testing will not be completed prior to the 180-day Generic Letter response. PEC will complete inleakage testing, performed in accordance with American Society for Testing and Materials (ASTM) E741, "Standard Test Method for Determining Air Change in a Single Zone by Means of a Tracer Gas Dilution," and submit the results of this testing by July 31, 2004. The balance of information requested in Items 1(a) and 1(b), as well as Items 1(c), 2, and 3 of the information requested in Generic Letter 2003-01 will be provided in the 180-day response to Generic Letter 2003-01.

Justification for Alternative Schedule

PEC is working with a vendor to establish a schedule for the necessary tracer gas testing that accounts for vendor availability and the Brunswick Unit 1 refueling outage beginning in March 2004. A pre-test walkdown of the control room envelope has been completed by a tracer gas inleakage testing vendor. At present, it appears that tracer gas testing will be completed after the Unit 1 outage in 2004 because the vendor is unable to support inleakage testing at Brunswick in 2003. PEC believes that the proposed schedule for completing control room air inleakage testing is acceptable based on the following considerations.

1. PEC has completed a considerable effort to enhance the Brunswick control room boundary envelope. This effort focused on enhancing the sealing in the control room floor (i.e., the barrier between the control room and the cable spreading room) and the ductwork that serves as the control room boundary and resulted in improvements in positive pressure results during control room pressure tests.

Additionally, PEC completed a safety system functional inspection (SSFI) for the Control Building Heating Ventilating and Air Conditioning (CBHVAC) system in May 1996. A self-assessment was completed in April 1998 to verify effective completion of the SSFI identified CBHVAC issues. This self-assessment found that sound technical solutions have been achieved for the issues of concern. The self-assessment concluded that significant

improvements to the system and the documentation of the system design basis resulted from the SSFI.

2. The unfiltered inleakage rate assumed in the current radiological analyses for Brunswick is very high at 3,000 cfm. Within the nuclear industry, the typical values for assumed unfiltered inleakage rates range from approximately 50 cfm to 1250 cfm. PEC expects that the as-found condition will be well within the assumed analytical value.
3. The unfiltered inleakage rate assumed in the current hazardous chemical analysis is relatively high at 2,000 cfm. PEC expects that the as-found condition will be within the assumed analytical value. Additionally, at Brunswick the only hazardous chemical of concern is chlorine gas. The odor of chlorine gas is readily detectable and the control room is equipped with self-contained breathing apparatus (SCBA) equipment. Operators are trained in the use of SCBA equipment and would use it should the need arise.

Based on the above considerations, PEC believes that reasonable actions to ensure control room integrity have been taken and that control room air inleakage testing will confirm that unfiltered inleakage will be less than that assumed in current radiological and hazardous chemical analyses. Therefore, completing and submitting the results of this testing by July 31, 2004 is justified.

List Of Regulatory Commitments

The following table identifies those actions committed to by Progress Energy Carolinas, Inc. (PEC) in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to the Manager - Support Services at the Brunswick Steam Electric Plant.

Commitment	Schedule
1. PEC will complete inleakage testing, performed in accordance with American Society for Testing and Materials (ASTM) E741, "Standard Test Method for Determining Air Change in a Single Zone by Means of a Tracer Gas Dilution," and submit the results of this testing.	July 31, 2004