

December 19, 2007

U.S. Nuclear Regulatory Commission **Document Control Desk** Washington, DC 20555

ATTN: Juan Peralta, Chief

Ouality and Vendor Branch 1

Division of Construction Inspection & Operational Program

Office of New Reactors

SUBJECT: Tennessee Valley Authority

Bellefonte Nuclear Plant – Project Number 740

Duke Energy Carolinas, LLC

William States Lee III Nuclear Station – Project Number 742

Joint Responses to Audit Response Requests

REFERENCE: Monarque to Hastings, NRC Audit Report on the Review of Duke Energy's

> William States Lee III Nuclear Station and Tennessee Valley Authority's Bellefonte Nuclear Plant Combined License Applications, October 25, 2007

In the referenced letter, the U.S. Nuclear Regulatory Commission (NRC) issued a report documenting the NRC Staff's conclusions regarding a pre-application audit of Tennessee Valley Authority (TVA) and Duke Energy Carolinas (Duke) combined license (COL) application preparation activities, conducted from July 30 – August 3, 2007. Because TVA's Bellefonte COL application and Duke's Lee Nuclear COL application were prepared in close coordination through NuStart and the AP1000 Design Centered Work Group (DCWG), and because these two COL applications were prepared by the same contractor, the audits were performed essentially simultaneously.

The referenced audit report requested that the audit response requests (ARRs) be addressed prior to or as part of the respective COL application submittals. Responses to the ARRs are enclosed. Designated perpM ONIS, val perpM Dous 19 The ARRs in the audit report did not directly impact the content of the COL applications, and the timing of the issuance of the audit report did not facilitate a response prior to the filing of the applications.

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The nature of these ARRs and associated responses are such that they are applicable to both the Bellefonte and Lee Nuclear activities. Accordingly, please direct any additional questions jointly to both points of contact listed below.

Sincerely,

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Duke Energy

AP1000 DCWG Lead

Phillip M. Ray

Bellefonte Licensing Manager

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cc: See page 3

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Each of the ARRs from the subject audit report is included below, followed by the respective response.

**ARR-001:** 

Although Enercon Procedure G-002 provides a description of the departure concept, the procedure lacks guidance on developing and documenting the justification of such departures. The applicant acknowledged this process weakness and stated that appropriate project management documents will be revised to address the issue. Therefore, as a result of this audit, the applicant is requested to provide a description of the actions taken to ensure that justifications for deviations from the certified design incorporated into the COLA are performed in accordance with appropriate project management documents and that such justifications are documented.

Response:

The change process for AP1000 departures is described in 10 CFR Part 52, Appendix D, Section VIII.B.5. The criteria contained therein are applicable to "[a]n applicant or licensee who references [the design certification and wishes to] depart from Tier 2 information without prior NRC approval." The few departures taken in the Bellefonte and Lee COL applications are fully described in the respective applications, with the expectation that these departure justifications would be subject to NRC review. Nonetheless, Enercon Procedure G-002 has been revised to add structure to the process for identifying, reviewing, and justifying departures from the design certification, pursuant to the departure evaluation criteria discussed above. The COL applications include in their respective Part 7 Departures and Exemptions reports. The Part 7 report identifies and provides justification for the departures identified in the application.

ARR-002:

MACTEC's surveillance report CS-8 did not clearly describe the potential finding associated with the use of equipment with undetermined calibration status. In addition, the audit team could not find a nonconformance and corrective action report generated by MACTEC describing this potential deficiency. The audit team noted that this is not consistent with MACTEC's QA Project Document and associated procedures. Therefore, as a result of this audit, the applicant is requested to provide a description of the actions taken to ensure that surveillances conducted by suppliers and sub-suppliers are properly documented.

Response:

As observed by the Staff in their audit report, this particular issue was identified by Enercon in an internal surveillance report. The NRC audit team also noted that the related corrective action report was closed after Enercon verified that equipment used in the field was calibrated by an accredited laboratory, and confirmed that the equipment in question was not required to be calibrated as described in ASTM Standard D 5777. As to the question of ensuring surveillances conducted by suppliers and sub-suppliers are properly documented, Enercon provides copies of their audit and surveillance reports to Duke and NuStart. Those reports are reviewed to assess supplier performance. When the audit or surveillance identifies a problem, a deficiency is written. Specific to the example

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cited by the Staff, in this case, we have reviewed a sample of surveillance reports, which were prepared by MACTEC, and identified no additional examples where the surveillance indicated a potential deficiency and no corrective action document was identified. The incident identified was determined to be an isolated case.

### **ARR-003:**

Enercon's Corporate OA Program Manual, Revision 9, contains CSP 2.03, QA Training Requirements, Rev. 3, which describes the QA indoctrination of project personnel performing safety-related activities. The manual states that, "The Project Manager, or designee, shall schedule, conduct, and document the training of project personnel in quality assured activities." This allows the project manager to decide what training is applicable to specific personnel, without further explicit guidance provided in the COLA development program documentation. However, the audit team noted that there was no specific documented qualification requirements captured in this standard procedure or any other guidance within the training program. The audit team held discussions with NuStart and Duke project managers to confirm that training for each individual working on the project is task-specific and based solely on the project manager's discretion. While the NRC audit team did not find any specific examples of training deficiencies for individuals assigned to the project, the lack of documented criteria describing how the training curriculum or explicit qualification is determined was noted as a programmatic weakness by the NRC audit team. Therefore, as a result of this audit, the applicant(s) is requested to provide a justification for the training and qualification practices used for the COLA development, and describe how the training and qualification for personnel assigned to the COLA development were determined to be adequate.

### Response:

The technical training necessary for performing this type project includes a discipline-specific technical education. This is generally provided by a standard college curriculum and is evidenced by the required degree. Consistent with standard engineering practice, additional experience beyond the education is required for the key lead personnel who have responsible charge for the technical support staff. The required related experience (15 years for the project manager and 10 years for the task leads) meets or exceeds that typically required for analogous positions at operating nuclear facilities.

In addition to this experience, Enercon provides training. The Enercon training and qualification process is consistent with the typical training for design services organizations. Enercon identifies the training and qualification requirements for personnel in the QA PPD for the project, including required documented specific training on the QA Program and implementing procedures. In general, this QA training addresses the administrative requirements for the completion of documentation of the technical work products.

#### ARR-004:

The Bellefonte and Lee COLAs used Westinghouse's AP1000 DCD Revision 16 to identify COL items. The applicants also used the SRP and RG 1.206 to help

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ensure the entire scope was identified and addressed. The applicant has a tracking system to identify areas of change such as AP1000 technical reports that are under revision based on NRC staff Requests for Additional Information and therefore may result in the need for an FSAR revision. The NRC audit team observed the use of the "left hand margin annotations" that all AP1000 COL applicants will use. These annotations are meant to assist the NRC staff in identifying standard and plant-specific responses to COL action items, standard and plant-specific supplemental information, and standard and plant-specific deviations from the DCD. These annotations should help the NRC staff in its review although specific training and familiarization with the annotations and their meanings would be useful. The NRC audit team noted that exceptions to the SRP and/or RG 1.206 should be clearly and explicitly identified in the COLA. The applicant also has a tracking system for licensing commitments; however, it was not clear to the NRC audit team how these licensing commitments would be conveyed to the NRC staff in the COLA. Therefore the NRC staff is requesting that prior to or as part of the COLA submittal, the applicant provide a description of how these licensing commitments will be conveyed to the NRC Staff in the COLA.

### **Response:**

Upon issuance of their respective COLs, the TVA and Duke licensees expect to manage formal regulatory commitments in a manner generally consistent with NEI-99-04. The tracking system observed by the Staff during this audit was not associated with Regulatory Commitments as defined in NEI-99-04, but rather is an internal means for tracking statements of fact and future actions described in the COL application. Specific Proposed Combined License Conditions are contained in Part 10 of each respective application.