



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

December 14, 2010

Mr. Dhiaa Jamil  
Duke Energy Carolinas, LLC  
526 South Church Street  
Charlotte, North Carolina 28202

SUBJECT: PUBLIC MEETING SUMMARY – DUKE QUALITY ASSURANCE PROGRAM  
DISCUSSION MEETING

Dear Mr. Jamil:

This refers to the meeting conducted on December 10, 2010, in Atlanta, GA. The purpose of this meeting, which was conducted at your request, was to discuss follow-up actions for a previous unapproved change to your Quality Assurance Program. The information presented during the meeting is enclosed.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room (PDR) or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this meeting, please contact me at (404) 997-4607.

Sincerely,

*/RA/*

Jonathan H. Bartley, Chief  
Reactor Projects Branch 1  
Division of Reactor Projects

Docket Nos.: 50-269, 50-270, 50-287, 50-369, 50-370, 50-413, 50-414  
License Nos.: DPR-38, DPR-47, DPR-55, NPF-9, NPF-17, NPF-35, NPF-52

Enclosures: 1. Powerpoint Presentation  
2. Issue Timeline

cc w/encl: (See page 2)

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ADAMS:  Yes      ACCESSION NUMBER: \_\_\_\_\_       SUNSI REVIEW COMPLETE

OFFICE	RII:DRP	RII:DRP											
SIGNATURE	EJS /RA/	JHB /RA/											
NAME	EStamm	JBartley											
DATE	12/14/2010	12/14/2010											
E-MAIL COPY?	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO

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cc w/encl. (continued)

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DEC

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Letter to Dhiaa Jamil from Jonathan H. Bartley dated December 14, 2010

SUBJECT: PUBLIC MEETING SUMMARY – DUKE QUALITY ASSURANCE PROGRAM  
DISCUSSION MEETING

Distribution w/encl:

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L. Douglas, RII EICS

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**This document contains information related to an issue involving the Duke Energy QA Program. In accordance with Duke's correspondence procedures, the information in this document has been authorized by the appropriate Regulatory Compliance functional manager and designated "For Information Only." The information has not been validated. The information is provided for limited purposes and should not be used to make a regulatory finding or decision.**

Duke Energy Corporation  
Quality Monitoring Issue Timeline  
December 3, 2010

- 12/18/02 -- Duke Energy submitted to the NRC proposed Amendment 32 to Duke Energy Topical Report, Duke-1-A - Quality Assurance Program (QATR). This Amendment proposed organizational, administrative, and editorial changes to the QATR. In addition, it proposed the QATR be revised to allow routine maintenance activities to be monitored, as necessary, to ensure that ongoing processes and activities are adequately and effectively performed. This process monitoring would take the place of the use of mandatory hold points. As part of the evaluation of the proposed Amendment 32, Duke Energy concluded that the proposed changes would constitute a reduction in commitment addressed by the QATR, Section 17.3.2.12 - Inspection, with regard to hold point inspection of routine maintenance activities. (ML023610141)
- 02/04/03 -- NRC issued a letter acknowledging receipt of proposed Amendment 32 to the Duke Energy QATR submitted on 12/18/02. (ML030350017)
- 04/04/03 -- NRC issued a Request For Additional Information (RAI) related to proposed Amendment 32 to the Duke Energy QATR submitted on 12/18/02. (ML031010402)
- 04/24/03 -- Duke Energy provided the response to the NRC RAI of 04/04/03. (ML031210049)
- 07/10/03 -- Based on a review of the 12/18/02 submittal and the 04/24/03 RAI response, the NRC requested additional information regarding the scope of activities to which the proposed monitoring process would be applied, a description of the elements of the selection process, and a description of the proposed monitoring process. (ML031910003)
- 10/16/03 -- Duke Energy responds to NRC RAI dated 07/10/03. Included in the correspondence was a re-write of Amendment 32 to the Duke Energy QATR which incorporated the responses to the RAI questions. The revised Amendment 32 superseded the submittal transmitted on
- 04/08/04 -- Duke meets with NRC at NRC Headquarters to discuss proposed Amendment 32 to the Duke Energy QATR. (ML041110531)
- 04/16/04 -- NRC issues letter that provides a summary of the 04/08/04 meeting with Duke Energy. The letter states that, during the meeting, the NRC staff identified the areas that were of concern with regards to Duke Energy's submittals related to proposed Amendment 32. Duke Energy indicated that it would consider the information gained and submit a revised application for approval of Amendment 32 to the Duke Energy QATR which would supersede all of the previous submittals. (ML041100798)
- 06/01/04 -- NRC and Duke Energy teleconference to discuss implementation of the process monitoring program proposed in Amendment 32 to the Duke Energy QATR.

**This document contains information related to an issue involving the Duke Energy QA Program. In accordance with Duke's correspondence procedures, the information in this document has been authorized by the appropriate Regulatory Compliance functional manager and designated "For Information Only." The information has not been validated. The information is provided for limited purposes and should not be used to make a regulatory finding or decision.**

- 06/03/04 -- Duke submitted alternative Amendment 32 to the Duke Energy QATR to make organizational, administrative, and editorial changes "that did not reduce program commitments contained in the QA Topical Report." The letter stated that Duke Energy "will provide in a separate submittal another QA Topical Report amendment regarding the use of quality process monitoring for certain inspection activities." Duke Energy indicated this submittal will provide the information on process monitoring requested by the NRC Staff at the 04/08/04 meeting between Duke Energy and the NRC. (ML041610390)
- 06/28/04 -- NRC issues an internal memorandum providing a summary of the teleconference held on 06/01/04 between Duke Energy and the NRC "to discuss the status of the licensee's request to implement Amendment 32 to the Duke Energy Corporation Topical Report, Duke-1-A, on the Quality Assurance (QA) Program for the Catawba, McGuire, and Oconee Nuclear Stations. The NRC staff requested this call in order to voice concerns with items that were not discussed during the April 8, 2004, meeting (See Meeting Summary ADAMS # ML041110007)." The memorandum states; "The NRC staff's primary concern was that substitution of hold point inspections with a monitoring process based upon routine versus non-routine maintenance does not allow for the safety-significance of the structures, systems, or components, as outlined in Appendix B, to be tied to the maintenance being performed." Additionally, the memorandum states; "the NRC staff expressed its concern that the licensee's original application did not meet the guidance in the consensus standards N18.7-1976/ANS-3.2, 'Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants,' and N45.2-1977, 'QA Program Requirements for Nuclear Facilities'." Further, the memorandum stated; "the NRC staff suggested that the licensee consider withdrawing its request for Amendment 32." Instead, Duke Energy indicated it would submit a revised Amendment 32 that is administrative in nature and would submit a new Amendment 33 to address the monitoring process. (ML041900164)
- 07/27/04 -- Duke Energy meets with the NRC staff at NRC Headquarters prior to submitting Amendment 33 to the QATR. During this meeting, Duke Energy presented the draft Amendment 33 submittal to the NRC. This draft submittal stated; "Duke has revised QA Topical Section 17.3.2.12 'Inspections' to align with the inspection requirements of 10CFR50 Appendix B and ANSI N18.7-1976/ANS-3.2. This alignment demonstrates Duke's compliance with the inspection requirements set forth in these codes and standards."
- 07/29/04 -- Duke Energy issues letter withdrawing the request for NRC approval of the original submittal of 12/18/02 and transmitting Amendment 33 to the Duke Energy QATR. This letter states that, as part of Amendment 33: "Duke revised QA Topical Section 17.3.2.12 'Inspections' to align with the inspection requirements of 10CFR50 Appendix B and ANSI N18.7-1976/ANS-3.2. This alignment demonstrates Duke's compliance with the inspection requirements set forth in these codes and standards." This letter also provides Duke Energy's position that Amendment 33 is clarifying the commitment and thus does not constitute a reduction of commitments below ANSI N18.7-1976 or 10CFR50 Appendix B Criteria, and therefore NRC approval is not necessary. (ML042170337)
- 08/05/04 -- NRC issues correspondence stating that, based upon the 07/29/04 Duke Energy correspondence, the NRC was terminating its review of Amendment 33 (old Amendment 32) to the Duke Energy QATR. (ML042260007)

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08/06/04 -- NRC issues letter that provides a summary of the 7/27/04 meeting with Duke Energy. The letter states that Duke Energy presented its draft Amendment 33 submittal, "which would no longer use an indirect monitoring process instead of holdpoint inspections for routine maintenance activities." The letter also states that: "In its analysis, Duke determined that Amendment 33 is a clarification that does not constitute a reduction in commitment and, therefore, does not require approval from the NRC. Based upon the discussion of the proposed changes, the NRC Staff agreed with Duke that the revision would not constitute a reduction in commitment. At the conclusion of the meeting, the licensee indicated that it would withdraw its request for NRC approval of the original submittal dated December 18, 2002. Furthermore, Duke would incorporate Amendment 33 to Duke Topical Report Duke-1-A without seeking NRC approval." (ML042220036)

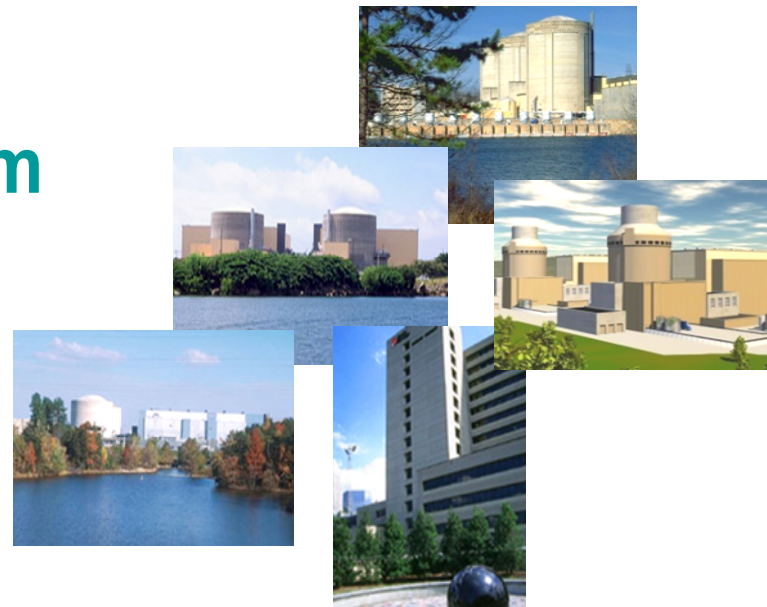
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# Duke Energy

## Quality Assurance Program Quality Monitoring Issue



Status Update for the NRC

December 10, 2010



## Issue:

Whether Duke's Quality Monitoring Process was implemented appropriately with respect to the regulatory process.

## Definition: Quality Monitoring Process

Job observations performed by QC inspectors on selected routine maintenance activities to verify that performance is in accordance with documented instructions, procedures, and drawings.

## Scope:

Routine maintenance activities for selected electrical and mechanical components. Excludes construction, modification, special processes, and civil activities.



## Background

- On August 13, 2010, the Nuclear Industry Evaluation Program (NIEP) identified a significant deficiency with Quality Monitoring (QM) Process - whether it was consistent with the Duke Energy QA Topical Report (QATR) and ANSI 18.7.
- QM Process immediately suspended, affected work activities were re-designated to use QC hold-point inspections, if required.
- On August 16, 2010, Duke initiated a team to validate the NIEP deficiency – confirmed on August 25, 2010. Investigation was upgraded to a full Root Cause (RC) Investigation.
- On October 14, 2010, regulatory concerns identified in RC Investigation were presented to management.
- On October 22, 2010, management initiated a separate investigation into the regulatory concerns and conducted telephone briefing with NRC.



## Regulatory Investigation Team Focus

- To conduct an investigation to determine whether the QM Process was implemented appropriately in regard to the regulatory process.
- To assure the basis of quality for the plant maintenance activities conducted under the QM Process while it was in effect (2005 – 2010).



# Regulatory Investigation

Review of Timeline  
(separate hand-out)



## Regulatory Investigation

### Preliminary Conclusions

- Section 50.54(a) evaluation for QATR Amendment 33 remains open issue.
- A good faith conclusion was reached in 2004 that Amendment 33 was not a reduction in commitments.
- Duke Energy plans were discussed at NRC meetings and telephone calls; substance of communications cannot be definitively determined.
- Documentation of Duke Energy approach in docketed correspondence was not adequate.



## Response Actions

- Extent of Cause Review
  - Primary Causes:
    - Process weaknesses with ineffective procedures for 10CFR50.54a and for Inspection Program procedure revisions.
  - Evaluation:
    - INOS Processes – Evaluated by NIEP for compliance with QATR – biennial.
    - QATR revisions – From 1999, all under NIEP scope except recent Rev 37 which was reviewed and approved by the NRC (Non-conforming Materials, Parts and Components).
    - NIPM (Nuclear Inspection Program Manual) change process revised to require formal documentation of basis and review.



## Response Actions

- Extent of Condition Review
  - Initials reviews of related indicators – no adverse trend identified
  - Evaluate the QC 'M' activity population for assurance of quality
    - Utilize appropriate screening to identify population.
    - Apply approved statistical methodology to identify sample size and acceptable number of failures. (reference NUREG 1475)
    - Generate random sample and assess sample items via defined methodology.