

June 11, 2010

Mr. James Scarola
Senior Vice President
and Chief Nuclear Officer
Progress Energy, Inc.
P.O. Box 1551
Raleigh, NC 27602

SUBJECT: NRC INSPECTION REPORT NOS. 05200022/2010-201 and
05200023/2010-201

Dear Mr. Scarola:

From April 12, 2010, through April 16, 2010, the U.S. Nuclear Regulatory Commission (NRC) conducted an inspection at the Progress Energy, Inc., offices in Raleigh, NC. The enclosed report presents the results of this inspection.

The purpose of the NRC inspection was to verify that quality assurance processes and procedures applied to activities related to the Harris Units 2 and 3 combined license application were effectively implemented. The inspection focused on assessing compliance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21, "Reporting of Defects and Noncompliance," and selected portions of Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." The enclosed report presents the results of this inspection. This NRC inspection report does not constitute NRC endorsement of your overall quality assurance or 10 CFR Part 21 programs.

No violations or nonconformances were identified during this inspection.

In accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," the NRC will make a copy of this letter, its enclosures, and your response available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), which is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

Juan Peralta, Chief
Quality and Vendor Branch 1
Division of Construction Inspection
& Operational Programs
Office of New Reactors

Docket Nos.: 05200022 and 05200023

Enclosure:
Inspection Report Nos. 05200022/2010-201
and 05200023/2010-201 and Attachments

Sincerely,

Juan Peralta, Chief
 Quality and Vendor Branch 1
 Division of Construction Inspection
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**U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NEW REACTORS
DIVISION OF CONSTRUCTION INSPECTION AND
OPERATIONAL PROGRAMS**

Docket Nos.: 05200022 and 05200023

Report Nos.: 05200022/2010-201 and 05200023/2010-201

Applicant: Progress Energy, Inc.,

Applicant Contact: Mr. James Scarola
Senior Vice President
and Chief Nuclear Officer

Background: Progress Energy, Inc. is pursuing a combined license for two new units at the Shearon Harris Nuclear Generating Station in Wake County, NC.

Inspection Dates: April 12–16, 2010

Inspectors: Greg Galletti, NRO/DCIP/CQVA, Team Leader
Yamir Diaz-Castillo, NRO/DCIP/CQVA
Raju Patel, NRO/DCIP/CQVA
Paul Coco, NRO/DCIP/CQVA
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Approved by: Juan D. Peralta, Chief
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Office of New Reactors

ENCLOSURE

EXECUTIVE SUMMARY

Progress Energy, Inc.
Report Nos. 05200022/2010-201 and 05200023/2010-201

The U.S. Nuclear Regulatory Commission (NRC) inspection focused on quality assurance (QA) policies and procedures implemented to support the combined license (COL) application for Harris, Units 2 and 3, as described in NRC Inspection Manual Chapter 2502, "Construction Inspection Program: Pre-Combined License (Pre-COL) Phase." The purpose of this inspection was to verify that Progress Energy, Inc. (PGN) Nuclear Plant Development (NPD) had implemented an adequate QA program that complies with the requirements of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities." The inspection also verified that PGN NPD had implemented a program under 10 CFR Part 21, "Reporting of Defects and Noncompliance," that meets NRC regulatory requirements.

The NRC inspection was based on the following:

- 10 CFR Part 21
- Appendix B to 10 CFR Part 50

During this inspection, the NRC inspection team implemented Inspection Procedure 35017, "Quality Assurance Implementation Inspection," dated July 29, 2008, and Inspection Procedure 36100, "Inspection of 10 CFR Part 21 and 50.55(e) Programs for Reporting Defects and Noncompliance," dated October 3, 2007.

The NRC conducted a Pre-COL QA audit at PGN for the Harris Units 2 and 3 COL application in November 2007.

10 CFR Part 21 Program

The NRC inspection team concluded that the requirements of the PGN NPD 10 CFR Part 21 program are consistent with the regulatory requirements of 10 CFR Part 21, "Reporting of Defects and Noncompliance." Based on its review, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

Procurement Document Control

The NRC inspection team concluded that the requirements of the PGN NPD procurement document control process are consistent with the regulatory requirements of Criterion IV, "Procurement Document Control," of Appendix B to 10 CFR Part 50. Based on the samples reviewed, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

Document Control (site characterization work)

The NRC inspection team concluded that the requirements of the PGN NPD document control program are consistent with the regulatory requirements of Criterion VI, "Document Control," of Appendix B to 10 CFR Part 50. Based on the samples reviewed, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

Nonconformance Materials, Parts, or Components

The NRC inspection team concluded that the requirements of the PGN NPD nonconforming materials, parts, and components program are consistent with the regulatory requirements of Criterion XV, "Nonconforming Materials, Parts, or Components," of Appendix B to 10 CFR Part 50. Based on its review, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

Corrective Actions

The NRC inspection team concluded that the requirements of the PGN NPD corrective action program are consistent with the regulatory requirements of Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50. Based on the sample reviewed, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

Audits

The NRC inspection team concluded that the requirements of the PGN NPD external and internal audit programs are consistent with the regulatory requirements of Criterion VII, "Control of Purchased Material, Equipment, and Services," and Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50. Based on the sample reviewed, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

REPORT DETAILS

1. 10 CFR Part 21 Program

a. Inspection Scope

The NRC inspection team reviewed the implementation of PGN NPD 10 CFR Part 21 program for the development of the Harris COLA. Specifically, the NRC inspection team reviewed the policies and procedures governing the implementation of PGN NPD control processes to verify compliance with regulatory requirements of 10 CFR Part 21, "Reporting of Defects and Noncompliance." The NRC inspection team also discussed this process with members of the PGN NPD management and technical staff.

The NRC inspection team reviewed the following documents for this inspection area:

- Nuclear Generation Group (NGG) Program Manual NGGM PM 0030, "Quality Assurance Plan (QAP) for New Nuclear Plant Development and Construction Activities," Revision 3
- Standard Procedure REG-NGGC-0013, "Evaluating and Reporting of Defects and Noncompliance in Accordance with 10 CFR Part 21," Revision 2
- CAP-NGGC-0200, "Corrective Action Program [CAP]," Revision 32
- CAP-NGGC-0205, "Significant Adverse Condition Investigations and Adverse Condition Investigations—Increased Rigor," Revision 11
- Crystal River Unit 3 Part 21 Report for Nuclear Condition Report (NCR) 348108-23, dated September 25, 2009
- Purchase Order (PO) No. 255934, issued to Joint Venture Team (JVT) on January 1, 2006
- SOP-1405, Revision 5A, dated November 30, 2009, CAP for Sargent & Lundy's (S&L) 10 CFR Part 21
- NOM-06, Revision 4, dated October 26, 2006; CAP for WorleyParsons Group 10 CFR Part 21
- NBG-QA-1602, Revision 7, dated January 29, 2010 CAP for CH2M HILL 10 CFR Part 21

b. 10 CFR Part 21 Procedures and Implementation

REG-NGGC-0013 establishes the methods to ensure that PGN NPD evaluates potential deviations or failures to comply, as defined in 10 CFR Part 21, for potential substantial safety hazards and that it notifies and reports to the NRC pursuant to the requirements of 10 CFR Part 21. The NRC inspection team determined that REG-NGGC-0013 contained

adequate procedural guidance to initiate PGN NPD's 10 CFR Part 21 process when an NCR determined that a reportable defect might exist.

PGN NPD personnel are responsible for reporting potential defects, failures to comply, or deviations to their supervisors and for documenting these occurrences on an NCR. NCRs are generated for potentially reportable conditions when they are discovered through external correspondence or generic information that may apply to PGN NPD applicants. Activities involved in evaluating conditions for 10 CFR Part 21 reporting include: (1) screening to determine if a deviation or failure to comply exists, (2) evaluating whether the condition could cause a substantial safety hazard, and (3) determining the appropriate reporting activities. The responsibility of processing potentially reportable conditions is defined for directors and responsible officers that are subject to the notification provisions of 10 CFR 21.21(d)(5). The procedure addresses the posting requirements of 10 CFR 21.6, "Posting Requirements," and provides guidance for adhering to the explicit timing requirements of 10 CFR Part 21.

The NRC inspection team verified that PGN NPD had posted 10 CFR Part 21 regulations, as required, in conspicuous places at its Raleigh, NC, offices where personnel working on the combined license application (COLA) were assigned. The NRC inspection team reviewed PGN NPD's JVT PO No. 255934. This contract impose 10 CFR Part 21 requirements on the contractors responsible for engineering and licensing services and support for COLA preparation, as well as for the procurement of materials, items, and components for the Harris COLA. PO No. 255934 includes these requirements, which the contractors must pass on to any subcontractors.

The NRC inspection team also reviewed 10 CFR Part 21 programs of the principal contractors and found them to provide a level of detail sufficient for evaluating and notifying the NRC of potential defects and noncompliance.

The NRC inspection team reviewed the implementation activities of PGN NPD's 10 CFR Part 21 program. Since there were no identified potential deviations or failures requiring a 10 CFR Part 21 evaluation specific to LNP Units 1 and 2, the NRC staff used a Crystal River Unit 3 10 CFR Part 21 report, related to NCR No. 348108-23, as an example to verify PGN NPD effectively implemented its 10 CFR Part 21 process.

In addition, the NRC inspection team reviewed a sample of three qualification cards and confirmed that PGN NPD had adequately trained and qualified personnel responsible for performing the 10 CFR Part 21 reportability/operability screening process.

c. Conclusions

The NRC inspection team concluded that the requirements of the PGN NPD 10 CFR Part 21 program are consistent with the regulatory requirements of 10 CFR Part 21, "Reporting of Defects and Noncompliance." Based on its review, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

2. Procurement Document Control

a. Inspection Scope

The NRC inspection team reviewed the implementation of PGN NPD procurement document control processes for the development of the Harris COLA. Specifically, the NRC inspection team reviewed the policies and procedures governing the implementation of PGN NPD control processes to verify compliance with Criterion IV, "Procurement Document Control," of Appendix B to 10 CFR Part 50, and a representative sample of procurement records.

The NRC inspection team reviewed the following documents for this inspection area:

- Section 6.4, "Procurement Document Control," of the PGN QAP NGGM-PM-0030, "Quality Assurance Plan for the Development of New Nuclear Plants," Revision 3
- Section 4.0, "Procurement Control," of the PGN QA Program Manual, NGGM-PM-0007, Revision 16
- MCP-NGGC-0001, "NGG Contract Initiation, Development and Administration," Revision 14
- PO No. 255934, issued to the JVT on January 1, 2006

b. Observations and Findings

b.1 Policies and Procedures

NGGM-PM-0007 establishes the requirements for controlling activities and documents associated with procurement. Section 4 establishes requirements for controlling the activities and documents associated with the procurement of items and services. It includes requirements for procurement document content and reviews, vendor selection and qualification, and surveillance after award.

Section 6.4 of NGGM-PM-0030 describes the applicable programs and procedures to be used for activities associated with the development of Harris Units 2 and 3 COLA.

MCP-NGGC-0001 provides instructions for the initiation, development, and administration of contracts within NGG.

MCP-NGGC-0401 provides instructions for the review, approval, receipt, or acceptance of material supplied by contract.

b.2 Implementation of Procurement Document Control

The NRC inspection team reviewed the procurement document JVT PO No. 255934 associated with the development of the Harris COLA.

Joint Venture Team (JVT) PO No. 255934

A JVT agreement to perform engineering and licensing services was entered into on January 1, 2006, between JVT—which consists of S&L, CH2MHILL Inc, and Worley Parsons Group Inc.—and Progress Energy Services Company, LLC but solely agent for Progress Energy Carolinas, Inc. and Progress Energy Florida, Inc. Purchase orders related to the provision of engineering and licensing services to support COLA preparation until COLA approval. The master contract required QA programs conforming to the requirements of Appendix B and 10 CFR Part 21, including reporting nonconformance items to PGN NPD. The master contract consists of work authorization numbers with contract work orders that required the contractor to perform the engineering tasks listed on a time-and-materials and target-price basis, as authorized by individual contract work orders, to support the preparation of Harris COLA.

The NRC inspection team reviewed elements of the work authorization agreement, paying particular attention to the provisions of Section D, “Part 21,” and Section F, “Quality Assurance.” Section D requires contractor compliance with the reporting requirements of 10 CFR Part 21. Section F states that contracted activities will be conducted under their QA programs and procedures for their scope of supply. Section F imposes quality requirements on contractors consistent with the nuclear safety quality classification of their work. Section F also addresses owner access and auditing at contractor and subcontractor facilities, witness and hold points, and an owner’s right to inspect and stop work. In addition, Section F requires the contractor to immediately notify the owner-designated representative of any QA nonconformances or any violations of owner-approved documents.

The NRC inspection team reviewed a sample of two work authorizations to ensure that PGN NPD imposed the requisite technical, quality, and regulatory requirements. The contract work orders reviewed adequately specify the scope of work to be performed, the technical and quality requirements, and the contract deliverables.

The NRC inspection team selected the following project deliverables to verify compliance with regulatory and PGN NPD procedural requirements associated with the development of the Harris COLA:

- PGN NPD Letter NPD-SL-2009-113, dated March 16, 2009, documents the owner’s review (OR) of Calculation HAG-000-X7C-043, Revision 0, “Evaluation of Differential Settlement between the HAR 2 and 3 Nuclear Islands and the Adjacent Radwaste and Turbine Buildings,” provided by S&L Letter No. SLHAR 2009-046, work breakdown structure (WBS) 2.1, Task 2, with the calculation performed by CH2M HILL on March 12, 2009. PGN engineering performed the OR of calculation HAG-0000-X7C-043 and documented it on form EGR-NGGC-0003.
- PGN NPD Letter NPD-SL-2009-202, dated June 1, 2009, documents the OR of HAG-CWS-GER-001, Revision 1, “Conceptual Design and Calculations for HAR Raw Water and Circulating Water Systems,” provided by S&L Letter No. SLHAR-2009-085 for

WBS 3.10, Task 3, for Harris Units 2 and 3. WorleyParsons performed the Work. PGN engineering performed the OR of calculation HAG-CWS-GER-001 and documented it on form EGR-NGGC-0003.

- PGN NPD Letter NPD-SL-2009-379, dated December 8, 2009, documents the OR of HAG-0000-X6C-001, Revision 1, for Dry-Bulb/Wet-Bulb Temperature Evaluation provided by S&L Letter No. SLHAR-2009-162 for WBS 2.1, Task 2, dated December 8, 2009. The calculation is associated with NRC letter 073 RAI 02.03.01-15(H-0514) response with EGR-NGGC-0003. PGN engineering performed the OR of calculation HAG-0000-X6C-001 and documented it on form EGR-NGGC-0003.
- PGN NPD Letter No. NPD-SL-2010-018, dated February 7, 2010, documents the OR of calculation HAG-0000-X7C-003, Revision 4, "Probable Maximum Flood on Streams and Rivers," submitted by S&L in Letter No. SLHAR-2010-004, dated January 29, 2010, to support Revision 2 changes of the Harris COLA, performed for WBS 7.1, Task 7, with the design calculation performed by CH2MHILL, documented on ENG-FM-005 calculation for project 33884-NC. The calculation was performed to conduct the probable maximum flood analysis for the Buckdown Creek Drainage Basin above the Main Dam and determine the associated maximum water levels. PGN engineering performed the OR of calculation HAG-0000-X7C-003 and documented it on form EGR-NGGC-0003.

c. Conclusions

The NRC inspection team concluded that the requirements of the PGN NPD procurement document control process are consistent with the regulatory requirements of Criterion IV, "Procurement Document Control," of Appendix B to 10 CFR Part 50. Based on the sample reviewed, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

3. Document Control

a. Inspection Scope

The NRC inspection team reviewed the implementation of PGN NPD document control processes for the development of the Harris COLA. Specifically, the NRC inspection team reviewed the policies and procedures governing the implementation of PGN NPD control processes to verify compliance with Criterion VI, "Document Control," of Appendix B to 10 CFR Part 50, and a representative sample of document records.

The NRC inspection team reviewed the following documents for this inspection area:

- ADM-NGGC-0106, "Configuration Management Program Implementation," Revision 7
- EGR-NGGC-0003, "Design Review Requirements," Revision 10
- NGGS-NPD-0001, "Process for Document Reviews and Affirmation," Revision 3

- NGGS-PRO-0001, “NGGS Procedure Review & Approval Process,” Revision 7
- NGGS-PRO-0003, “Nuclear Plant Development Information Exchange,” Revision 2
- NGGS-PRO-0200, “Procedure Use and Adherence,” Revision 12

b. Observations and Findings

b.1 Policies and Procedures

The NRC inspection team reviewed the PGN NPD policies and procedures governing the document control processes, to ensure those guidelines provided an adequate description of its implementation, consistent with the requirements of Criterion VI, “Document Control,” of Appendix B to 10 CFR Part 50 .

b.2 Implementation of Document Control Programs

The NRC inspection team reviewed a representative sample of QA documents to verify that implementation of the document control processes including approval, issuance, and revisions were consistent with the applicable QA guidance. These documents are electronically controlled within the PassPort database, and are transmitted using a “read only” format. Documents and their revisions are electronically signed, date stamped and distributed and include an electronic acknowledgment from the recipient.

The NRC inspection team reviewed the following types of documents; PGN NPD implementing procedures, owner’s reviews associated with deliverables from the JVT, owner’s reviews associated with deliverables from PGN NPD’s EPC contract, and vendor supplied documents. In performing this activity, the NRC inspection team verified that revisions were reviewed and approved appropriately by the originating organization(s), and that superseded documents were recorded in the various records of revisions for each document. The NRC inspection team’s review included the document interchange process (referred to as “the owner’s review process”) between PGN NPD and its contractors (EPC and JVT).

The NRC inspection team reviewed a sample of the owner’s acceptance review forms, and verified that they were completed in accordance with the applicant’s documented owner review process. The NRC inspection team did observe that the specific attributes evaluated for the sample reviews performed were not individually identified. As a result, PGN NPD initiated an Action Request (AR) (AR0393668) to further enhance the owner’s review process specified in EGR-NGGC-0003, if warranted.

c. Conclusions

The NRC inspection team concluded that the requirements of the PGN NPD document control program are consistent with the regulatory requirements of Criterion VI, “Document Control,” of Appendix B to 10 CFR Part 50. Based on the samples reviewed, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and

associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

4. Nonconforming Materials, Parts, or Components

a. Inspection Scope

The NRC inspection team reviewed the implementation of PGN NPD nonconforming materials, parts, and components processes for the development of the Harris COLA. Specifically, the NRC inspection team reviewed the policies and procedures governing the implementation of PGN NPD processes to verify compliance with Criterion XV, “Nonconforming Materials, Parts, or Components,” of Appendix B to 10 CFR Part 50. The NRC inspection team also discussed this process with members of the PGN NPD management and technical staff.

The NRC inspection team reviewed the following documents for this inspection area:

- NGGM-PM-0007, Revision 16
- NGGM-PM-0030, Revision 4
- MCP-NGGC-0401, “Material Acquisition (Procurement, Receiving, and Shipping),” Revision 27
- CAP-NGCC-0200, Revision 32

b. Observations and Findings

NGGM-PM-0007 provides the basis for the control and performance of safety-related and quality-related activities associated with the development of the Harris Units 2 and 3 COLA. PGN NPD based the QA provisions in NGGM-PM-0007 on the ANSI N45-series of quality standards. The ANSI N45-series establishes the essential requirements for compliance with Appendix B to 10 CFR Part 50 for contract oversight, design control, corrective actions, document control, and records management. NGGM-PM-0007 requires that nonconformances reported by a supplier be evaluated by the individual or group within the PGN NPD organization that is responsible for that requirement. Written approval of a supplier’s disposition or an alternative PGN NPD disposition shall be provided to the supplier and retained as a QA record.

Section 6.15, “Nonconforming Materials, Parts, and Components,” of NGGM-PM-0030 describes the applicable programs and procedures to be used for activities associated with the development of Harris Units 2 and 3 COLA.

MCP-NGGC-0401 provides a description and instructions for the procurement, reception, and shipment of materials and services, including software and computing hardware.

CAP-NGGC-0200 describes the process for initiating and resolving NCRs. The NCR process provides the administrative controls for identifying, documenting, tracking, investigating, correcting, and trending significant adverse conditions, adverse conditions, and improvement items under the CAP.

The NRC inspection team verified that MCP-NGGC-0401 and CAP-NGGC-0200 provide for the identification, documentation, evaluation, segregation, and disposition of nonconformances. Both procedures included provisions for evaluating significant conditions adverse to quality and nonconformances reported from vendors to determine whether these conditions are reportable in accordance with 10 CFR Part 21. In addition, the NRC inspection team interviewed PGN NPD staff and management responsible for the nonconformance process, and determined that and concluded that PGN NPD staff was knowledgeable in this area.

c. Conclusions

The NRC inspection team concluded that the requirements of the PGN NPD nonconforming materials, parts, and components program are consistent with the regulatory requirements of Criterion XV, "Nonconforming Materials, Parts, or Components," of Appendix B to 10 CFR Part 50. Based on its review, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

5. Corrective Action

a. Inspection Scope

The NRC inspection team reviewed the implementation of PGN NPD corrective action process for the development of the Harris COLA. Specifically, the NRC inspection team reviewed the policies and procedures governing the implementation of PGN NPD processes to verify compliance with Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50, and a representative sample of NCRs.

The NRC inspection team reviewed the following documents for this inspection area:

- NGGM-PM-0007, Revision 16
- NGGM-PM-0030, Revision 3
- CAP-NGGC-0200, Revision 32
- CAP-NGGC-0205, Revision 11
- CAP-NGGC-0206, "Corrective Action Program Trending and Analysis," Revision 5

b. Observations and Findings

NGGM-PM-0007 provides the basis for the control and performance of safety-related and quality-related activities associated with the development of the Harris Units 2 and 3 COLA.

Section 6.16, "Corrective Action," of NGGM-PM-0030 describes the applicable programs and procedures to be used for activities associated with the development of Harris Units 2 and 3 COLA.

CAP-NGGC-0200 describes the process for initiating and resolving NCRs. The NCR process provides the administrative controls for identifying, documenting, tracking, investigating, correcting, and trending significant adverse conditions, adverse conditions, and improvement items under the CAP.

CAP-NGGC-0205 provides guidance to effectively conduct a structured significant adverse conditions investigation; and an adverse condition investigation; identify cause(s), develop appropriate corrective action(s), and prepare a Significant Adverse Condition Investigation Report and an Adverse Condition Investigation—Increased Rigor Report. This procedure supplements CAP-NGGC-0200, which describes program requirements regarding significant adverse conditions and adverse conditions that require increased rigor.

The NRC inspection team verified that CAP-NGGC-0200 included provisions for evaluating significant conditions adverse to quality and nonconformances reported from vendors to determine whether these conditions are reportable in accordance with 10 CFR Part 21.

CAP-NGGC-0206 provides guidance for performance assessments and trending analyses of issues contained in a wide variety of documented performance information, including corrective action data or data trends, benchmarking, and self-assessment results.

The NRC inspection team reviewed 17 NCRs generated by PGN NPD, including both opened and closed NCRs. The NRC inspection team also examined approximately 12 trending reports, which are issued on a quarterly basis. The NRC inspection team noted that in the 17 NCRs reviewed: (1) identified deficiencies in accordance with its approved procedures, (2) an appropriate technical justification for each disposition (3) PGN NPD took adequate action to address the deficiency, and (4) all identified deficiencies, as appropriate, to determine whether these deficiencies were reportable in accordance with 10 CFR Part 21. The NRC inspection team noted that PGN NPD policies and implementing procedures provided the necessary guidance to adequately document, evaluate, correct, report, and verify resolution of conditions adverse to quality.

c. Conclusions

The NRC inspection team concluded that the requirements of the PGN NPD corrective action program are consistent with the regulatory requirements of Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50. Based on the sample reviewed, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

6. Audits

a. Inspection Scope

The NRC inspection team reviewed the implementation of PGN NPD auditing processes for the development of the Harris COLA. Specifically, the NRC inspection team reviewed the policies and procedures governing the implementation of PGN NPD processes to verify

compliance with Criterion VII, "Control of Purchased Material, Equipment, and Services," and Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50, and a representative sample of audits.

The NRC inspection team reviewed the following documents for this inspection area:

- NGGM-PM-0007, Revision 16
- NGGM-PM-0030, Revision 3
- Nuclear Oversight (NOS)-NGGC-1000, "Nuclear Oversight Conduct of Operations," Revision 7
- NOS-NGGC-0100, "Nuclear Oversight Assessment Process," Revision 5
- NOS-NGGC-0600, "Nuclear Oversight Assessment and Independent Review Personnel, Training and Development, Qualification, and Certification Program," Revision 2
- NOS-NGGC-0200, "Supplier Qualification, Surveillance, and Audits," Revision 0

In addition, the NRC inspection team selected the following audits performed during the preparation of the Harris Units 2 and 3 COLA:

- Internal Annual Performance Evaluation Support Assessment of Nuclear Plant Development, conducted September 28–October 3, 2008
- Internal Annual Nuclear Oversight Assessment of Nuclear Plant Development, conducted September 28–October 2, 2009
- PGN audit of CH2MHill, conducted October 1–5, 2007; March 31–April 4, 2008; and March 30–April 2, 2009
- PGN Source Surveillance of CH2MHill on COLA development activities, conducted July 24–28, 2008
- Nuclear Procurement Issues Committee (NUPIC) audit of WorleyParsons, conducted November 14–14, 2008
- NUPIC Audit of S&L, conducted December 8–12, 2008
- NUPIC Audit of Shaw, Stone & Webster, conducted April 7–May 7, 2009
- NUPIC Audit of Westinghouse, conducted July 27–31, 2009

b. Observations and Findings

NGGM-PM-0007 provides the basis for the control and performance of safety-related and quality-related activities associated with the development of the Harris Units 2 and 3 COLA.

Section 6.18, "Audits," of NGGM-PM-0030 describes the applicable programs and procedures to be used for activities associated with the development of Harris Units 2 and 3 COLA.

NOS-NGGC-1000 provides guidance for the conduct of operations for the NOS Department, and it describes the NOS organization, including the general responsibilities of the organization and the principal duties of key positions.

NOS-NGGC-0100 establishes the assessment process and provides direction on planning, preparation, performance, reporting, and follow-up for the NOS Department's performance-based assessments.

NOS-NGGC-0600 provides direction to ensure that Independent Assessment, Vendor & Equipment Quality and Independent Review (IR) personnel become informed about NOS work practices and acquire basic knowledge, skills, and abilities needed to meet job requirements and specific qualification and certification requirements.

NOS-NGGC-0200 provides a description of, and instructions for, supplier qualification, source surveillance, vendor audits, and commercial grade surveys performed to support procurement activities.

Based on its review of audits, the NRC inspection team verified that the audit plans identifying the audit scope, focus, and applicable criteria had been prepared and approved before to the initiation of the audit activity and confirmed that the audit reports identified conditions and corrective actions associated with these conditions. The NRC inspection team also verified that PGN NPD took corrective actions in a timely manner to respond to any identified findings and provided an adequate level of objective evidence to support closing their closeout.

In addition, the NRC inspection team reviewed the qualification records for several lead auditors and auditors. For records reviewed, the NRC inspection team confirmed that PGN NPD had satisfied all requirements for auditors and audit team leaders and that audit team leaders had properly maintained their qualification in accordance with NOS-NGGC-0600.

c. Conclusions

The NRC inspection team concluded that the requirements of the PGN NPD external and internal audit programs are consistent with the regulatory requirements of Criterion VII, "Control of Purchased Material, Equipment, and Services," and Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50. Based on the sample reviewed, the NRC inspection team also determined that PGN NPD is effectively implementing its policies and associated procedures to support the Harris Units 2 and 3 COL application. No findings of significance were identified.

7. Entrance and Exit Meetings

On April 12, 2010, the NRC inspection team leader presented the inspection scope during an entrance meeting with Robert Kitchen, Licensing Manager, NPD, Harris Units 2 and 3, and other PGN NPD staff and contractor personnel. On April 16, 2010, the NRC inspection team leader presented the inspection results during an exit meeting with John Elnitsky, Vice President, PGN NPD; Robert Kitchen, Licensing Manager, NPD; and other PGN NPD staff and contractor personnel.

ATTACHMENT 1

1. PERSONS CONTACTED

John Elnitsky	Vice President, New Plant Development (NPD)
Robert Kitchen	Licensing Manager, NPD
Tillie Wilkins	Engineering Licensing, NPD
Michael Janus	Quality Assurance (QA) Lead, NPD
Kenneth Heffner	Lead Engineer, Nuclear Regulatory Affairs, NPD
Mike Verrilli	Corporate Self-Evaluation Program Manager, NPD
Dave Waters	Lead Licensing Engineer, NPD
Vann Stephenson	Engineering Manager, NPD
Lewis Spragins	Supervisor Project Support Services, NPD
Mike Franklin	Supervisor, Site Engineering, NPD
Chase Thomas	Mechanical Engineer, NPD
Bettie Byrd	Senior Document Control Specialist, NPD
Randall Kurtz	Vice President QA Director, Sargent & Lundy (S&L)
A.K. Singh	Joint Venture Team Project Manager, S&L
Bobbie Hickman	Project Manager, CH2M HILL
Ted Manning	Nuclear QA Manager, WorleyParsons Group

2. INSPECTION PROCEDURES USED

Inspection Procedure 35017, "Quality Assurance Implementation Inspection," dated July 29, 2008

Inspection Procedure 36100, "Inspection of 10 CFR Part 21 and 50.55(e) Programs for Reporting Defects and Noncompliance," dated October 3, 2007

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

The NRC had performed no previous implementation inspections of the quality assurance program governing the combined license application for Harris Nuclear Plants, Units 2 and 3. There are no open items.

ATTACHMENT 2

Harris Nuclear Plants, Units 1 and 2, Quality Assurance Implementation Inspection Entrance and Exit Meeting Attendance

List of Attendees: (1) Entrance Meeting April 12, 2010, and (2) Exit Meeting on April 16, 2010

<u>(1)</u>	<u>(2)</u>		
X	X	Greg Galletti	NRC Inspection Team Leader
X	X	Yamir Diaz Castillo	NRC Inspection Team
X	X	Raju Patel	NRC Inspection Team
X	X	Paul Coco	NRC Inspection Team
X	X	Dan Pasquale	NRC Inspection Team
X	X	Brian Anderson	NRC Project Manager
	X	Terri Spicher	NRC Project Manager
	X	John Elnitsky	PGN, NPD
X	X	Robert Kitchen	PGN, NPD
X	X	Tillie Wilkins	PGN, NPD
X	X	Michael Janus	PGN, NPD
X	X	Kenneth Heffner	PGN, NPD
X	X	Mike Verrilli	PGN, NPD
X	X	Dave Waters	PGN, NPD
X	X	Vann Stephenson	PGN, NPD
X	X	Lewis Spragins	PGN, NPD
X	X	Mike Franklin	PGN, NPD
X	X	Dana Rose	PGN, NPD
X	X	Tony Pilo	PGN, NPD
X	X	Lewis Spragins	PGN, NPD
X	X	Wayne Cutright	PGN, NPD
X	X	Paul Snead	PGN, NPD
	X	Jan Kerin	PGN, NPD
	X	Sean O'Connor	PGN, NPD
	X	Leo Martin	PGN, NPD
X	X	Randall Kurtz	S&L
X	X	A.K. Singh	S&L
X	X	Bobbie Hickman	CH2M HILL
X	X	Lorin Young	CH2M HILL
X	X	Ted Manning	WorleyParsons Group

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