

February 19, 2010

MEMORANDUM TO: Glenn M. Tracy, Director  
Division of Construction, Inspection  
& Operational Programs  
Office of New Reactors

THRU: Richard A. Rasmussen, Chief */RA/*  
Quality and Vendor Branch B  
Division of Construction Inspection  
& Operational Programs  
Office of New Reactors

FROM: Daniel Pasquale, Inspection Team Leader  
Quality and Vendor Branch B  
Division of Construction Inspection  
& Operational Programs  
Office of New Reactors

SUBJECT: TRIP REPORT BY DIVISION OF CONSTRUCTION INSPECTION  
& OPERATIONAL PROGRAMS (DCIP) NRC INSPECTORS OF  
THE JOINT UTILITY TEAM AUDIT AT DUBOSE, NATIONAL  
ENERGY SERVICES, INC. (DNES)

On December 7-11, 2009, Daniel Pasquale, and Jonathan Ortega-Luciano of the Quality and Vendor Branch 2, Division of Construction Inspection and Operational Programs, Office of New Reactors observed a Nuclear Procurement Issues Committee (NUPIC) joint utility audit at the DNES facility located in Clinton, NC. A representative of Progress Energy (PGN) led the audit, with the participation of representatives from, Hydro-Quebec (H-Q), AmerenUE (AUE), Southern California Edison (SCE) and PGN using the most current version of the NUPIC audit checklist.

The purpose of the NRC observation was to assess the implementation of the NUPIC audit process used for suppliers of components to the nuclear industry. The inspectors observations, including a list of the persons contacted, are contained in the enclosed trip report.

The inspectors also performed a limited scope inspection of DNES's compliance with 10 CFR Part 21, "Reporting of Defects and Noncompliance." The results of this inspection are documented in NRC Inspection Report 99900861/2009-201 (ADAMS Accession # **ML100351249**).

Enclosure:  
As stated

CONTACT: Daniel Pasquale, NRO/DCIP/CQVB  
301-415-2498

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ADAMS Accession No.: **ML100360120**

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<b>NAME</b>	JOrtega-Luciano		DPasquale		RRasmussen	
<b>DATE</b>	02/16/2010		02/16/2010		02/19/2010	

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## NRC TRIP REPORT

### Subject

This trip report documents observations by members of the Nuclear Regulatory Commission (NRC) Office of New Reactors (NRO), Division of Construction Inspection & Operational Programs (DCIP), of a Nuclear Procurement Issues Committee (NUPIC) joint utility audit conducted on December 7-11, 2009, at DuBose National Energy Services Inc. (DNES), in Clinton, NC.

### Dates of Audit and Organization Visited

December 7-11, 2009  
DuBose National Energy Services, Inc.  
900 Industrial Drive  
Clinton, NC 28328

### Author, Title and Agency Affiliation

Daniel Pasquale, Vendor Inspector  
Sr. Operations Engineer  
Quality and Vendor Branch 2 (CQVB)  
Office of New Reactors (NRO)

### Sensitivity

There were no documents removed from the facility during the conduct of the audit. This document is available to the public (ADAMS Accession # **ML100360120**).

### Background/Purpose

NUPIC was formed in 1989, as a partnership involving all domestic and several international nuclear utilities. The NUPIC program evaluates suppliers furnishing safety-related components and services and commercial-grade items to nuclear utilities. The audit team followed the NUPIC audit process and plans to provide the results to NUPIC members that procure parts and services from DNES.

This trip report documents the NRC inspectors assessment of a Progress Energy led, NUPIC joint utility audit conducted at the DNES facility located in Clinton, NC on December 7-11, 2009. DNES is a 10 CFR 50 Appendix B supplier of ferrous and nonferrous products to the nuclear industry; including utilities, component manufacturers, and contractors. DNES's Quality Program is based on ASME Section III, NCA/ WA-3800 and 4000; 10CFR50 Appendix B; ASME NQA-1; ANSI N45.2; CAN 3-Z299; and MIL-I-45208A.

The purpose of NRC observations of NUPIC audits is to verify the effectiveness and implementation of the NUPIC joint utility audit process. The NRC inspectors executed Inspection Procedure (IP) 43005, "NRC Oversight of Third-Party Organizations Implementing Quality Assurance Requirements" to assess the third-party organization's independent oversight activities to qualify vendors. The inspectors also performed an inspection of DNES's implementation of 10 CFR Part 21 (Part 21) requirements. The inspection was performed in accordance with IP 36100, "Inspection of 10 CFR Part 21 and 10 CFR 50.55(e) Programs for Reporting Defects and Nonconformance." The results of this inspection are documented in NRC Inspection Report 99900861/2009-201 (ADAMS Accession # **ML100351249**).

ENCLOSURE

## **Discussion**

The NUPIC audit scope required the determination of the acceptability of the DNES QA Program, and the verification of the effective implementation of that program in accordance with the requirements of Appendix B to 10 CFR Part 50 (Appendix B) and ASME NQA-1-1994. The NUPIC audit team utilized revision 14 of the NUPIC audit checklist for this audit. The checklist is essentially divided into the 18 criteria of Appendix B. The checklist also verifies the implementation of the requirements of Part 21. The NUPIC audit checklist can be downloaded from the NUPIC web site ([www.nupic.com](http://www.nupic.com)).

The NUPIC audit team included four utility auditors and a technical specialist. The five-person NUPIC audit team was lead by a representative of Progress Energy (PGN) and included representatives from Hydro-Quebec (H-Q), AmerenUE (AUE), Southern California Edison (SCE), and PGN. The checklist sections were divided among the audit team members.

The audit team appropriately used the NUPIC checklist to assess the adequacy and effectiveness of the DNES's quality programs. The audit checklist delineated the activities to be examined within each section and how the auditor was to utilize the checklist's data sheets to record objective evidence. The NUPIC audit team followed the audit assignments as designated in their initial audit plan, and used the appropriate audit checklist sections as a guide to perform a complete assessment of each element. The audit of the adequacy of the DNES QA program was performed by reviewing the DNES QA manual and related lower-tier implementing documents such as procedures and drawings.

As part of the audit scope, the NUPIC audit team observed shop activities associated with fabrication, machining, assembly, special processes (welding and nondestructive examination), tests, and inspection activities. The NUPIC audit team also completed a review of calibration of the measuring and test equipment and handling, storage, and shipping activities. A Performance Based Supplier Audit (PBSA) worksheet was used by the NUPIC audit team to review the physical and technical characteristics of various ASME Section III and Nuclear Safety-Related Materials. The PBSA worksheets were specific to DNES-supplied ASME and non-ASME safety-related materials (material specification, traceability, fabrication, nondestructive examination, and testing).

## **Observations and Assessment**

The NRC inspectors observed the NUPIC audit team's pre-meeting, daily meetings, and exit meeting. The NRC inspectors also observed the performance of the NUPIC auditors as they conducted their performance-based reviews, using the specific audit checklist sections as a guide. The NRC inspectors further observed how documents were selected for review and how interviews were conducted with the various DNES technical and quality personnel.

The NUPIC audit team members were observed by the NRC inspectors in part or in whole on their portion of the audit conducted. The NRC inspectors also accompanied the NUPIC auditors onto the shop floor and observed ongoing work activities including welding, machining, final inspection, testing, and calibration.

During the audit, the NRC inspectors observed situations in which the NUPIC audit team completed sections of their audit checklist without recognizing that potential compliance issues still existed in these sections. The affected sections where the NRC inspectors had observations were in the areas of Control of Nonconformance Conditions and Corrective Actions and Part 21, as explained below.

During the observation of the Control of Nonconforming Conditions and Corrective Actions section review, the inspectors identified two examples where the NUPIC auditor did not identify that DNES

personnel failed to follow procedure QCP 1-4, "Control of Nonconforming Conditions and Corrective Actions", Rev. 10. In the first example, the NUPIC auditor did not identify several instances where DNES personnel failed to check-off the Part 21 evaluation block on the Nonconformance Reports (NCRs) form (D-12). Examples were identified where DNES checked the Part 21 evaluation block several days, sometime weeks, after the NCR was created, and not on the date the NCR was initiated as required by procedure. In the second example, the NUPIC auditor did not identify that DNES had been using a superseded version of the NCR form (D-12).

During the Part 21 section review, the inspectors identified that the NUPIC auditor did not take into consideration the relevance of DNES's Customer Complaint/Return Program as a contributing element to their Part 21 program. Specifically, the NUPIC auditor did not identify that DNES implementing procedure, QCP 1-10, "Customer Complaint/Return Procedure" Rev. 1, failed to require the initiation of a DNES NCR or Corrective Action Report (CAR) in cases where a shipment of a basic component, drop-shipped from a DNES authorized supplier, is subsequently rejected by the licensee at receipt inspection. By not generating NCRs, these potential deviations are not reviewed by DNES for the evaluation to determine if a defect as defined by 10 CFR Part 21, did not exist.

The NUPIC audit team leader, after being informed of the NRC's observation, engaged the auditor in charge of the affected section to go back and look at the issues that the NRC had identified. During these subsequent reviews, the NUPIC auditors concluded that a potential finding existed, and as a result, expanded the sample size to collect sufficient objective evidence to support the issues. All audit findings identified during the audit were effectively communicated to DNES during the audit exit meeting, and were adequately documented in the audit report by the NUPIC Lead Auditor. The NUPIC audit report was issued to DNES on January 4, 2010, and included findings for failures in the areas of Commercial Grade Dedication, Test Control, Control of Measurements and Test Equipment, Document Control/Procedural Adequacy, Control of Nonconforming Conditions and Corrective Actions, and Part 21.

## **Conclusions**

Based on the NRC inspectors assessment of the performance of the joint utility audit team and the relatively significant NUPIC audit team recommendations resulting from the DNES audit, the NRC inspectors concluded with the exception of the issues identified above that the NUPIC audit process was effectively implemented by the audit team and resulted in a thorough review of the areas covered.

### **Pending Actions/Planned Next Steps for NRC**

The NRC observations related to the performance of this audit will be discussed with NUPIC Leadership at the next NUPIC general meeting.

Depending on the adequacy of the responses from DNES to the NUPIC findings, the NRC inspectors may conduct a follow-up inspection. The NRC inspectors implemented NRC IP 36100, "Inspection of 10CFR Parts 21 and 50.55(e) Programs for Reporting Defects and Noncompliance." The results of the NRC's inspection of DNES's implementation of Part 21 requirements are documented in NRC Inspection Report 99900861/2009-201 (ADAMS Accession # **ML100351249**).

### **Points for Commission Consideration/Items of Interest**

None.

### **List of Meeting Participants**

Jasurda, Michael	Auditor	SCE	Ent, Ext
Loudenslager, Debra	Team Lead Auditor	PGN	Ent, Ext
Schoolcraft, Kevin	Auditor	AUE	Ent, Ext
O'Connor, Larry	Auditor	H-Q	Ent, Ext
Johnston, Kevin	Technical Specialist	PGN	Ent, Ext
Ortega-Luciano, Jonathan	Inspector	U.S. NRC	Ent, Ext
Pasquale, Daniel	Lead Inspector	U.S. NRC	Ent, Ext
Stepp, Dave	QA Manager	DNES	Ent, Ext
Kossick, Martin	VP & General Manager	DNES	Ent, Ext
Barber-Rich, Ruth	QA Compliance Analyst	DNES	Ent, Ext
Vickery, Douglas	Director of Quality	DNES	Ent, Ext
Estes, Erick	QA Manager Assistant	DNES	Ent, Ext