UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 16, 2007

MEMORANDUM TO: Patrick L. Hiland, Director
Division of Engineering
Office of Nuclear Reactor Regulation

THRU: Dale F. Thatcher, Chief ***(/RA by D. F. Thatcher)***
Quality and Vendor Branch
Division of Engineering
Office of Nuclear Reactor Regulation

FROM: Victor E. Hall, Vendor Inspector ***(/RA by V. E. Hall)***
Division of Engineering
Office of Nuclear Reactor Regulation

SUBJECT: TRIP REPORT BY DIVISION OF ENGINEERING STAFF OF THE NUCLEAR PROCUREMENT ISSUES COMMITTEE AUDIT TEAM DURING THE SOUTHERN TESTING SERVICES AUDIT

On April 23-27, 2007, Victor Hall of the Division of Engineering (DE) observed the performance of a Nuclear Procurement Issues Committee (NUPIC) audit conducted at Southern Testing Services (STS) located in Knoxville, Tennessee. The purpose of the observation was to assess the NUPIC quality assurance audit process used for suppliers of components to the nuclear industry. The DE staff also provided clarification on issues related to NRC regulations, including input for a preliminary audit finding regarding inadequacies in the 10 CFR Part 21, “Reporting of Defects and Noncompliance” program for the STS facility. The trip report of the NRC staff’s observations and a list of the persons contacted during the trip is enclosed.

Enclosure: As stated

CONTACT: Victor Hall, DE
301-415-2915

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DATE	05/10/07	05/16/07			

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NRC TRIP REPORT

Subject

This trip report documents observations by a member of the Nuclear Regulatory Commission (NRC) Office of Nuclear Reactor Regulation (NRR), Division of Engineering (DE) of a Nuclear Procurement Issues Committee (NUPIC) audit team during their audit conducted on April 23-27, 2007, at Southern Testing Services (STS), a division of Argo Turboserve Corporation.

Dates of Audit and Organization Visited

April 23-27, 2007
Southern Testing Services in Knoxville, Tennessee

Author, Title and Agency Affiliation

Victor Hall
Vendor Inspector
Division of Engineering
Office of Nuclear Reactor Regulation

Sensitivity

There were no documents removed from the facility during the conduct of the audit. This document is available to the public (ADAMS Accession #ML071370206).

Background/Purpose

The purpose of this trip report is to document the DE staff assessment of a NUPIC audit conducted on April 23-27, 2007. The five-person NUPIC joint utility audit team included representatives from American Electric Power (AEP), Tennessee Valley Authority (TVA), Southern Nuclear Operating Company (SNOC), and Nuclear Management Company (NMC). The team performed an audit of the Southern Testing Services (STS) facility in Knoxville, Tennessee.

STS provides seismic qualification testing to IEEE 323 and 344, and commercial-grade dedication services. STS does not manufacture a product and does not provide design engineering services. The audit focused on interviewing personnel who performed activities on nuclear orders, reviewing controlling procedures, reviewing work packages for previously completed orders, and observing a seismic testing demonstration. The DE staff chose to observe this particular NUPIC audit based on a recent Part 21 notification concerning Otek panel meters and interest in commercial-grade dedication activities at STS.

ENCLOSURE

NRC/NUPIC Interface

NUPIC was formed in 1989, by 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 purpose of the staff's observation of NUPIC audits is to verify the effectiveness of the NUPIC joint utility audit process and to leverage these audits to evaluate the supplier's 10 CFR Part 21 program and implementation.

Discussion

The NUPIC audit scope was to determine the acceptability and verify the effective implementation of STS's QA program in accordance with the requirements of Appendix B to 10 CFR Part 50. The NUPIC audit team used the NUPIC audit checklist, which is essentially divided into the 18 criteria of Appendix B for this audit. This checklist was supplemented by ASME, ANSI and other recognized consensus standards relevant to the supplier being audited. The NUPIC audit checklist can be downloaded from the NUPIC web site (www.nupic.com).

The performance-based NUPIC checklist was used by the team to assess the adequacy and effectiveness of the STS quality program. The audit checklist delineated the activities to be examined within each section and how to use the referenced data sheets to record the objective evidence reviewed for each section. The review included an analysis of STS's order entry process, procurement controls associated with specific utility orders, and a field (shop) demonstration of seismic qualification and dedication activities of commercial-grade items. Also, the NUPIC audit team completed a review of calibration records of measuring and test equipment, handling, storage, and shipping activities.

The staff observed all aspects of the team's conduct of the audit at the STS facility. This started with the audit team meeting conducted the day before the audit commenced, to go over details of the audit and all audit expectations. The staff observed performance of the auditors as they conducted a performance-based review of the specific audit checklist sections. The staff observed how documents were selected for review and the adequacy of the review, interviews conducted of STS technical personnel, and observed a demonstration of seismic testing activities at the STS facility. The staff observed the daily meetings that the audit team conducted internally, the daily debrief with STS personnel, and the formal exit meetings with STS management.

The checklist sections were divided among the audit team members, with one of the two AEP auditors acting in a managerial function as the audit team lead. One representative each from NMC, SNOC, and TVA completed the NUPIC audit team. In addition to the generic audit checklist, the NUPIC audit team focused on functional, seismic, and environmental testing.

The audit team reviewed the STS QA manual and other lower tier implementing documents such as procedures and dedication packages of commercial-grade items. The audit was performed by reviewing the requirements of the QA program and supporting implementing procedures, evaluating the documentation associated with the activities that had been

performed, and discussing the activities with STS personnel. A demonstration of seismic qualification activities was also performed at the STS facility.

All NUPIC audit team members were observed by the staff in part or in whole conducting their portion of the audit. Specific areas of the checklist that the staff focused on for review were adequately addressed by members of the audit team. In general, the audit team performed a sound, thorough, performance-based review of the audited areas.

In addition, the NUPIC audit team identified several preliminary findings and recommendations with the implementation of the quality program and regulatory requirements. These preliminary findings and recommendations were discussed in detail with the STS management during the exit meeting. The audit findings and recommendations represented the following areas; commercial-grade dedication, procurement, organization and QA program, nonconforming items (10 CFR Part 21), internal audits, corrective action, and QA records.

The staff reviewed implementation of 10 CFR Part 21, "Reporting of Defects and Noncompliance," at the STS facility and provided regulatory guidance for a preliminary finding in the NUPIC team audit report. The staff observed problems in the area of adequate STS procedures or guidance to identify and evaluate potential Part 21 reportable conditions. To ensure that the findings are adequately addressed by STS, the NUPIC Team Leader will forward STS's response to the staff for review of the proposed resolution for closure.

Conclusions

The NUPIC audit team leader conducted effective daily briefings with the audit team and STS on each day's issues and potential findings. These daily briefings enhanced the audit team's understanding of issues and audit findings and provided an effective feedback mechanism from experienced audit team members on the significance of individual team findings. The staff noted that the NUPIC team leader was effective at communicating audit findings to STS's management. The auditors supported their findings with comprehensive objective evidence and went to sufficient depth in their respective areas of focus. Overall, the staff concluded, based on the review of the audit areas covered, that the NUPIC audit process was effectively implemented by the audit team and resulted in sound performance-based findings related STS's implementation of QA program requirements.

Pending Actions/Planned Next Steps for NRC

This NRC assessment was one of at least two planned for 2007. The assessment process was outlined to NUPIC members in a March 2004 NUPIC meeting. Since that meeting, the NRC has planned and conducted two assessments a year of NUPIC audits or commercial-grade surveys to ensure the effectiveness of the NUPIC joint utility audit process. Depending on the adequacy of the responses from STS, the staff may conduct a followup inspection.

Points for Commission Consideration/Items of Interest

None.

List of Meeting Participants

U.S. NRC	**Position**
Victor Hall	Vendor Inspector
NUPIC	
Kenneth Pinkowski	Team Leader, Senior QA Auditor, American Electric Power
Jay Kovarik	I&C Engineering Supervisor, American Electric Power
Steven Lusk	Program Manager, Auditor, Tennessee Valley Authority
William Moody	Senior Engineer, Southern Nuclear Operating Company
David Soward	QA Assessor, Nuclear Management Company
Southern Testing Services	
N. Allen Davidson	President, Utility Services Division, Argo Turboserve
George Kuhn	Vice President and General Manager
G. Russel McNutt	Lead Equipment Qualification Engineer
Kelly Sellers	Equipment Qualification Engineer
Kevin Nunn	Qualification Engineer
Richard Crawford	Account Manager
Carl Ross	Quality Assurance Manager