

October 28, 2005

MEMORANDUM TO: Bruce Boger, Director
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

THRU: */RA/ Dale F. Thatcher for*
Theodore R. Quay, Chief
Plant Support Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

FROM: */RA/*
Richard P. McIntyre, Senior Reactor Engineer
Quality and Maintenance Section
Plant Support Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

SUBJECT: TRIP REPORT BY THE QUALITY AND MAINTENANCE SECTION
(QMS) STAFF OF THE WESTINGHOUSE/NUCLEAR PROCUREMENT
ISSUES COMMITTEE (NUPIC) AUDIT AT EQUIPOS NUCLEARES, S.A.
(ENSA) AUDIT

On September 19-23, 2005, Richard McIntyre, Paul Prescott, and Milton Concepcion-Robles of the Quality and Maintenance Section observed the performance of a Westinghouse/NUPIC audit conducted at the Equipos Nucleares, S.A., located in Santander, Spain. The purpose of the observation was to assess the Westinghouse audit process used for suppliers of components to the nuclear industry. Attached is the trip report of the NRC staff's observations.

Attachment: As stated

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DATE	10/28/05	10/28/05	10/28/05	10/28/05	09/ /05

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NRC TRIP REPORT

Subject

This trip report documents observations by members of the Nuclear Regulatory Commission (NRC) Office of Nuclear Reactor Regulation (NRR), Quality and Maintenance Section (QMS) of a Westinghouse Electric/Nuclear Procurement Issues Committee (NUPIC) audit conducted on September 19-23, 2005, at Equipos Nucleares S.A., in Santander, Spain.

Dates of Audit and Organization Visited

September 19-23, 2005
Equipos Nucleares S.A., Santander, Spain

Author, Title and Agency Affiliation

Richard P. McIntyre, Team Leader
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Plant Support Branch (IPSB)
Division of Inspection Program Management
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 # MLXXXXXXXXXX).

Background/Purpose

This trip report documents the QMS staff assessment of a Westinghouse led audit conducted at Equipos Nucleares, S.A. (ENSA) on September 19-23, 2005. The ENSA facility manufactures safety-related and ASME code items, components, and performs engineering services to U.S. nuclear utilities in accordance with ASME Section III and/or 10 CFR Part 50 Appendix B requirements. Led by the Westinghouse Major Component Replacements and Engineering group, the eight-person audit team included representatives from Texas Utilities (TXU) and Pacific Gas & Electric (PG&E) who performed a joint audit of the ENSA facility.

At the request of both Westinghouse Electric and NUPIC, representatives of the NRR Division of Inspection Program Management (DIPM), Plant Support Branch (IPSB) observed the joint utility audit at ENSA. Both Westinghouse management and the NUPIC Chairman requested NRC participation to help foster a more comprehensive audit and to allow ENSA to experience first hand input from the U.S. nuclear regulator.

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 Quality and Maintenance Team (QMS) observation of this Westinghouse/NUPIC joint utility audit was to ensure the audit process remains an acceptable alternative to the NRC vendor inspection/audit program. The NRC staff continues to rely on the effectiveness of the NUPIC joint utility audit process for evaluating the implementation of quality assurance (QA) programs of suppliers to the nuclear industry.

Abstract: Summary of Pertinent Points/Issues

Oversight of the NUPIC audit process is viewed by the QMS staff as particularly relevant for two reasons: (1) Licensees and the NRC continue to rely on NUPIC for oversight of current suppliers to the nuclear industry and; (2) NRC may rely heavily on NUPIC for oversight of suppliers during construction of future generation reactors. The QMS staff anticipates that new suppliers, both domestic and international, will enter the nuclear supplier business due to an expanded nuclear marketplace. The QMS has had ongoing discussions with the NUPIC Steering Committee on the role NUPIC may take in evaluating these new suppliers during new plant construction. The QMS will need to evaluate NUPIC's capabilities and plans for oversight of the potential expanding supplier base for the next generation of nuclear plants.

Discussion

The Westinghouse/NUPIC audit scope was to determine the acceptability and verify the effective implementation of the ENSA quality assurance program in accordance with the requirements of 10 CFR Part 50 Appendix B and 10 CFR Part 21. Westinghouse utilized the NUPIC audit checklist, that 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 ENSA's quality program. The audit checklist delineated the activities to be examined within each section and how to utilize the referenced data sheets to record the objective evidence reviewed for each section. The review included an analysis of ENSA's order entry process, an examination of design, software QA, procurement and material controls associated with specific utility order, and field (shop) observations of fabrication, assembly, special processes, tests, and inspection activities. Also, a review of calibration of measuring and test equipment, handling, storage, and shipping activities was completed. The QMS observed all aspects of the team's conduct of the audit at ENSA. 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. For observance of the conduct of the audit, the QMS divided the audit checklist review areas between the three NRC staff members. The QMS staff then observed performance of the auditors as they conducted a performance based review of a specific audit checklist section. The QMS staff observed how documents were selected for

review and the adequacy of the review, interviews conducted of ENSA technical personnel, and observed on-going work and testing activities in ENSA's manufacturing facility. The QMS staff observed the daily meetings the audit team conducted internally, the daily debrief with ENSA personnel, and the formal exit meeting with ENSA management. QMS staff also reviewed the NUPIC audit findings and observations presented to ENSA.

The Westinghouse/NUPIC audit team included eight auditors. The checklist sections were evenly divided among the audit team members, with one of the four Westinghouse auditors acting in a managerial function as the audit team lead. Two representatives from TXU and two representatives from PG&E completed the audit team. In addition to the generic audit checklist, other items that the audit focused on were: software verification and validation; calibration of measuring and test equipment; non-destructive examination (NDE); welding activities; 10 CFR Part 21 program requirements; and ASME Section XI repair and testing activities.

The audit team reviewed the ENSA Quality Assurance Manual and other lower tier implementing documents such as procedures and work instructions. 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 ENSA personnel. Observations of ongoing work and inspection activities were also performed.

All Westinghouse/NUPIC audit team members were observed by QMS staff in part or in whole on their portion of the audit conducted. Specific areas of the checklist that the QMS 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.

At the exit meeting, the Westinghouse/NUPIC audit team identified several findings with implementation of the quality program and regulatory requirements. The final Westinghouse Audit Report, dated October 4, 2005, identified twelve (12) audit findings and six (6) recommendations for improvement, each with multiple examples of implementation deficiencies. The findings and recommendations represented the following areas: QA program, design control (including software controls), instructions procedures and drawings, document control, control of special processes, control of measuring and test equipment, report of nonconforming materials, parts, or components (including 10 CFR 21), corrective action, quality assurance records, and audits (both internal and supplier audit).

Conclusions

The Westinghouse audit team leader conducted effective daily briefings with the audit team and ENSA on each day's issues and potential findings. These daily briefings enhanced the audit team's understanding of issues and findings and provided an effective feedback mechanism from experienced audit team members on the significance of individual team findings. The QMS staff noted that the Westinghouse team leader was effective at communicating findings to ENSA's management. The auditors supported their findings with comprehensive objective evidence and went to sufficient depth in their respective areas of focus. Overall, the QMS staff concluded, based on the review of the audit areas covered, that the

Westinghouse/NUPIC audit process was effectively implemented by the audit team and resulted in a sound performance based findings for failure to adequately implement QA program and regulatory requirements.

Pending Actions/Planned Next Steps for NRC

This NRC assessment was the second of at least two planned for 2005. The assessment process was outlined to NUPIC members in a March 2004 NUPIC meeting. The NRC plan is to conduct two assessments a year of NUPIC audits or commercial grade surveys to ensure the adequacy of the NUPIC joint utility audit process.

Points for Commission Consideration/Items of Interest

None.