

United States Government

Department of Energy

Memorandum

QA: QA

DATE: **AUG 07 2002**

REPLY TO

ATTN OF: RW-3 (James Blaylock/4-1420)

SUBJECT: U.S. DEPARTMENT OF ENERGY OFFICE OF CIVILIAN RADIOACTIVE WASTE
MANAGEMENT OFFICE OF QUALITY ASSURANCE (OQA) ISSUANCE OF
SURVEILLANCE OQA-02-S-20 OF MTS SYSTEMS CORPORATION (MTS)

TO: YMSCO/OPE (C. E. Hampton)

Enclosed is Surveillance Record OQA-02-S-20 of MTS conducted by representatives of OQA on July 9, 2002, in Eden Prairie, Minnesota, to evaluate implementation of procurement quality assurance (QA) controls for calibration of MTS equipment at the University of Nevada, Reno (UNR) and Sandia National Laboratory (SNL).

MTS has an excellent facility for the calibration of various equipment including equipment located at UNR and SNL. MTS implementation at the Quality Management System (QMS) was satisfactory with the exception of a condition adverse to quality identified in Deficiency Report (DR) DR YMSCO(V)-02-D-157, which identifies that the MTS QMS fails to provide a method for qualification of suppliers based on history and a specific requirement to include quality requirements in purchase orders to sub-tier suppliers. Additionally, DR OQA(O)-02-D-158 identifies that MTS was placed on the Qualified Suppliers List based on Supplier Survey OQA-SFE-01-004, which failed to identify the above MTS program weaknesses.

This surveillance is considered complete and closed as of the date of this letter. A response to this surveillance record and any documented recommendations is not required; however, the open DRs will continue to be tracked until it is closed to the satisfaction of the QA Representative, and the Acting Director, OQA.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or Patrick V. Auer at (702) 794-1353.


Ram B. Murthy, Acting Director
Office of Quality Assurance

OQA:JB-1545

Enclosure:
Surveillance Record OQA-02-S-20

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AUG 07 2002

cc w/encl:

Margaret Chu, DOE/HQ (RW-1), FORS
B. V. Hamilton-Ray, DOE/CMD (RW-55), Las Vegas, NV
N. K. Stablein, NRC, Rockville, MD
Robert Latta, NRC, Las Vegas, NV
Alan Kalt, Churchill County, Fallon, NV
Irene Navis, Clark County, Las Vegas, NV
George McCorkell, Esmeralda County, Goldfield, NV
Leonard Fiorenzi, Eureka County, Eureka, NV
Andrew Remus, County of Inyo, Independence, CA
Mickey Yarbrow, Lander County, Battle Mountain, NV
Lola Stark, Lincoln County, Caliente, NV
Arlo Funk, Mineral County, Hawthorne, NV
L. W. Bradshaw, Nye County, Pahrump, NV
R. R. Loux, State of Nevada, Carson City, NV
S. W. Lynch, State of Nevada, Carson City, NV
Josie Larson, White Pine County, Ely, NV
Mifflin and Associates, Las Vegas, NV
A. E. Smiecinski, UNLV, Las Vegas, NV
Pat Mars, Bechtel Nevada, Las Vegas, NV
D. A. Klimas, BSC, Las Vegas, NV
J. F. Goodwin, MTS, Eden Prairie, MN
Chuck Madden, MTS, Eden Prairie, MN
K. J. Rust, MTS, Eden Prairie, MN
P. V. Auer, NQS, Las Vegas, NV
D. J. Harris, NQS, Las Vegas, NV
R. P. Hasson, NQS, Las Vegas, NV
File, NQS, Las Vegas, NV
D. G. Horton, DOE/YMSCO, Las Vegas, NV
S. P. Mellington, DOE/YMSCO, Las Vegas, NV
M. E. Van Der Puy, DOE/YMSCO, Las Vegas, NV
V. W. Trebules, DOE/YMSCO, Las Vegas, NV
J. D. Ziegler, DOE/YMSCO, Las Vegas, NV

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**OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
QUALITY ASSURANCE SURVEILLANCE REPORT**

QA: QA

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QA Surveillance Number:
OQA-02-S-20

Complete only applicable items.

1. Organization/Location MTS Systems Corporation (MTS) Eden Prairie, MN	2. Subject Procurement quality assurance (QA) controls	3. Date(s) Performed July 9, 2002
4. Surveillance Scope Evaluate implementation of procurement QA controls for calibration of MTS equipment at University of Nevada Reno (UNR) and Sandia National Laboratories (proposed).		
5. Requirement(s) (Procedure, Specification, Drawing, etc.) University of Nevada Las Vegas (UNLV) Purchase Order (PO) #11P25890X, Bechtel SAIC Company, LLC (BSC) PO #PO003084, Revision 0, currently on hold, and MTS Systems Corporation Quality Management System (QMS) #0101, Revision 10, including associated implementing procedures.	6. Originator Patrick V. Auer Team Members Donald J. Harris	

SURVEILLANCE RESULTS

7. Description/Details
The following documents were reviewed during this surveillance:

UNLV PO #11P25890X
BSC PO #PO003084
MTS Systems Corporation QMS procedure #0101, Revision 9, January 31, 2001, "Quality Management System"
MTS Systems Corporation QMS procedure #0101, Revision 10, May 14, 2002, "Quality Management System"
QMS Procedure #0261, Revision 9, February 25, 1999, "Metrology Subcontractor Approval Procedure"
QMS Procedure #0261, Revision 11, May 8, 2002, "Metrology Subcontractor Approval Procedure"
MTS Metrology Laboratory Calibration Procedure #1070, Revision K, July 3, 2002, "M&TE requiring calibration by a subcontractor"
QMS Work Instruction #0188, Revision 7, May 2, 2002, "Preparing the Purchase Order Confirmation Worksheet Work Instruction"
Office of Civilian Radioactive Waste Management (OCRWM) Office of Quality Assurance (OQA) Supplier Survey Report # OQA-SFE-01-004 of MTS Systems Corporation, March 16, 2001
QARD Matrix evaluation, dated June 13, 2002, of MTS Systems Corporation Quality Management System #0101, Revision 10

(Continued on page 2)

8. Persons (and their organizations) Contacted K. J. Rust, MTS, Metrology Laboratory Chuck Madden, MTS, Manufacturing Operations Team Leader J. F. Goodwin, MTS, Field Service Quality Manager M. A. Goyda, R. L. Hand, D. A. Klimas, BSC QA	9. CAQ/NCR/TE Issued <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Recommendation Issued <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	CAQ/NCR/TE Number(s): YMSCO(V)-02-D-157 OQA(O)-02-D-158 CIRS Number(s): N/A
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10. Surveillance Conclusions SAT UNSAT

MTS has an excellent facility for calibration of various equipment, including MTS equipment located at the National labs and UNR. MTS has committed to correcting the deficient conditions and has the necessary documentation to accomplish this task with minimal additional effort. Two deficiency reports (DR) were identified and are summarized below:

DR YMSCO(V)-02-D-157. MTS QMS fails to provide a method for qualification of suppliers based on history and a specific requirement to include quality requirements in POs to subtier suppliers.

DR OQA(O)-02-D-158. MTS was placed on Qualified Suppliers List based on Supplier Survey OQA-SFE-01-004. The MTS QMS failed to provide an acceptable methodology for qualification of suppliers or address the requirement for passing QA requirements to subtier suppliers.

11. Completed By (Originator) (Print Name) Patrick V. Auer	Signature 	Date 7/18/2002
12. Reviewed By (Appropriate QA Manager) (Print Name) Ram B. Murthy	Signature 	Date 8/6/02
13. Approved By (QVM) (Print Name) Ram B. Murthy	Signature 	Date 8/6/02

**OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
QUALITY ASSURANCE SURVEILLANCE REPORT**

QA: QA

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QA Surveillance Number:
OQA-02-S-20

Complete only applicable items.

1. Organization/Location MTS Systems Corporation (MTS) Eden Prairie, MN	2. Subject Procurement quality assurance (QA) controls	3. Date(s) Performed July 9, 2002
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7. Description/Details: (Continued)

MTS supplier survey report #002-01 of Agilent Corporation in Englewood, Colorado
MTS supplier survey report #005-01 of Fluke in Everett, Washington
MTS supplier survey report #009-99 of Bruel and Kajer
MTS supplier survey report #009-97 of Hart Scientific
MTS supplier survey report #001-98 of Industrial Automation and Controls
MTS Metrology Laboratory "Uncertainty Analysis" for Fluke DC Voltage Reference Standards, MTS Asset #'s 13834 and 13704
MTS Control Charts for Fluke DC Voltage Reference Standards for MTS Asset #'s 13834 and 13704
MTS History file for Tektronix Inc. of Beaverton, OR, ISO Certificate and Calibration Subcontractor Evaluation Sheets for MTS Asset #'s 1029, 11989 and 13540

The above documentation and equipment was examined during the visit to MTS on July 9, 2002. Discussions were held with MTS and BSC QA (via teleconference) personnel regarding supplier evaluation, qualification and incorporation of quality requirements into purchase documents. A review was conducted of MTS supplier history documentation including receiving reports, Calibration Subcontractor Evaluation Sheets utilized to ensure the calibration of standards by the supplier satisfied the PO requirements, and Process Control Charts for calibration standards. The Process Control Charts were available for each standard, where a check is performed weekly, averaged out and recorded on the Process Control Chart every other month. The Process Control Chart Test Data is plotted for "measured output," "Predicated Output," and "Process Limits." The Process Control Charts reviewed reflect and approximately four-year history of the standards. MTS also evaluates A2LA, NAVLAP, and ISO-9001 certificates from MTS sub-tier suppliers. The supplier history documentation (Calibration Subcontract Evaluation Sheets and Process Control Charts) provides confidence in the services provided by MTS suppliers; however, QMS procedure #0261, both revisions, do not take credit for qualification of sub-tier suppliers through a history evaluation. Both revisions allow qualification based on acceptance of A2LA, NAVLAP, and ISO-9001 certificates and "informal supplier surveys" which are mailed to and completed by the sub-tier supplier and subsequently approved by an MTS person (auditor). Additionally, MTS' QMS, both revisions, do not specifically include a requirement to incorporate quality requirements into purchase documents to sub-tier suppliers. These conditions are documented in DR YMSCO(V)-02-D-157. It should be noted that all MTS purchase documents reviewed required that "calibration reports must state the quality assurance standards complied with ..." and that acceptance documentation indicated that ISO 17025 is the quality standard which was intended to be applied.

Additionally, the MTS Metrology Laboratory accreditation certificate was reviewed. As a result of this review and upon successful closure of DR YMSCO(V)-02-D-157, MTS Metrology Laboratory's scope of work will be expanded to include calibration for DC Voltage, DC Current, Resistance, AC Voltage, Temperature, Dimensional, Mechanical, Thermodynamic, Time and Frequency and Acoustics and Vibration.

MTS was placed on the OCRWM Qualified Suppliers List based on Supplier Survey OQA-SFE-01-004, performed March 6-7, 2001. The MTS procedures failed to provide an acceptable methodology for qualification of their suppliers or address the requirement for passing on QA requirements of their customers to sub-tier suppliers. This is documented in DR OQA(O)-02-D-158.