

**U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE**

AUDIT REPORT

OF

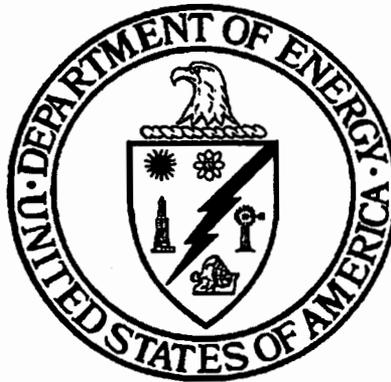
WASHINGTON TRU SOLUTIONS, LLC (WTS)

CARLSBAD, NEW MEXICO

AUDIT NUMBER A-11-02

October 5 – 7, 2010

WTS QUALITY ASSURANCE PROGRAM



Prepared by:

Harold T. Washington

Harold T. Washington, CTAC
Audit Team Leader

Date:

11/1/10

Approved by:

Ava L. Holland

Ava L. Holland, CBFO
Quality Assurance Director

Date:

11/4/10

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Audit A-11-02 was conducted to evaluate Washington TRU Solutions, LLC (WTS) continued implementation of a quality assurance (QA) program as related to the American Society of Mechanical Engineers (ASME) Nuclear Quality Assurance (NQA)-1-1989 Edition, *Quality Assurance Program Requirements for Nuclear Facilities*. The WTS QA Program was evaluated as it addresses NQA-1-1989 Criterion 10 – Inspection; Criterion 11 – Test Control; Criterion 12 – Control of Measuring and Test Equipment; Criterion 13 – Handling, Storage, and Shipping; Criterion 14 – Inspection, Test, and Operating Status; Criterion 15 – Control of Nonconforming Items; Criterion 16 – Corrective Action; Criterion 17 – Quality Assurance Records; and Criterion 18 – Audits.

The purpose of the evaluation was to verify the flow-down of NQA-1-1989 requirements through DOE/CBFO-94-1012, Revision 11, *CBFO Quality Assurance Program Document* (CBFO QAPD), and WP 13-1, Revision 29, *WTS Quality Assurance Program Description* (WTS QAPD), into the applicable WTS implementing procedures, and to determine if the procedures were effective. The audit was conducted October 5 – 7, 2010, at the WTS facilities at the Waste Isolation Pilot Plant (WIPP).

The audit team concluded that overall, WTS QA procedures are adequate in the flow-down of requirements from the upper-tier documents. The audit team determined that the requirements are satisfactorily implemented through WTS procedures and that overall, the WTS QA Program is effective.

The audit team identified one condition adverse to quality (CAQ), which resulted in a corrective action report (CAR). Details are provided in section 6.0, Summary of Deficiencies.

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated the adequacy, implementation, and effectiveness of selected QA processes related to the WTS QA Program. The following criteria were evaluated:

- Inspection
- Test Control
- Control of Measuring and Test Equipment
- Handling, Storage, and Shipping
- Inspection, Test, and Operating Status
- Control of Nonconforming Items
- Corrective Action
- Quality Assurance Records
- Audits

3.0 AUDIT TEAM

AUDITORS

Harold T. Washington	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
M. Lea Chism	CBFO QA Management Representative
Rick Castillo	Auditor, CTAC
Harley Kirschenmann	Auditor, CTAC
Jack Walsh	Auditor, CTAC
Norm Frank	Auditor, CTAC

4.0 AUDIT PARTICIPANTS

Individuals contacted during the audit are identified in Attachment 1. A pre-audit conference was held in the WTS Support Building large conference room on October 5, 2010. The audit was concluded with a post-audit conference in the WTS Support Building large conference room on October 7, 2010.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

The audit team concluded that the WTS QA Program was adequate, satisfactorily implemented, and effective for the areas audited.

5.2 Quality Assurance Activities

WTS implementing procedures included in the audit are identified in Attachment 2. Details of the audit are contained in the following sections. All procedures reviewed for the audit were determined to adequately address the appropriate upper-tier requirements.

5.2.1 Inspection

The audit team reviewed applicable documentation to verify the implementation and effectiveness of inspection processes. In addition, the audit team verified qualifications and training records, including qualification cards and certifications, and determined that inspections were performed by qualified personnel.

Documents reviewed included QA inspection reports, source/receipt verification sheets, work order packets, and associated nonconformance reports (NCRs).

The audit team identified no concerns associated with Inspection, and concluded that the program was adequate, satisfactorily implemented, and effective.

5.2.2 Test Control

Procedures reviewed in this area were determined to adequately address the appropriate upper-tier requirements. The audit team interviewed personnel and reviewed documentation, including QA Type "B" Packaging Acceptance Tests, Periodic Tests, Maintenance Tests, Preshipment Tests, and Acceptance Tests conducted by WTS personnel. No concerns were identified.

The audit team concluded that the Test Control process was adequate, satisfactorily implemented, and effective.

5.2.3 Control of Measuring and Test Equipment

The audit team reviewed applicable documentation to verify the implementation and effectiveness of measuring and test equipment (M&TE) and monitoring and data collection (M&DC) equipment inspection activities. Evaluations included reviews of equipment, M&TE/M&DC Receipt Inspection Verification Sheets with associated plan numbers, the Qualified Suppliers List (QSL), Equipment History Reports, M&TE Usage Reports, M&TE Recall Reports, M&TE Out-of-Tolerance Non-Response Reports, and M&TE Out-of-Tolerance Notification Forms. No concerns were identified.

The audit team concluded that the M&TE process was adequate, satisfactorily implemented, and effective.

5.2.4 Handling, Storage, and Shipping

The audit team interviewed personnel and reviewed documents related to stocking and storage of items in warehouse stores. Documentation reviewed included Stores Stock Requests (SSRs) for adding/deleting/returning spare parts and consumables and making changes to stores stock information, store orders, store logs, including the Credit Card/Express Mail Log, and a posted list of authorized personnel for withdrawal of TRUPACT-II and Varian Leak Detection spares. The team reviewed Annual Inventory Reports, a Shelf Life Expiration Analysis Report, Hazardous Materials Receipt Logs, Radioactive Source Logs, "Do Not Use Inspection Required" tags, "Warehouse Pending Receipt" tags, sample green "Complete" tags, Shipping Authorization forms (EA15PM3525-1-0), Shipping Request forms (WP 08-NT3110 (Attachment 1)) used for radioactive shipments, Receipt Discrepancy Reports (RDRs), and the Electronic Receipt Discrepancies database.

The audit team verified continued corrective actions for CAR 10-004, issued as a result of Audit A-10-02. The audit team determined that corrective actions were still in place during this audit. The audit team was able to verify stores request numbers 7480, 7499, 7530, and 7542 were handled as required.

The audit team concluded that the Handling, Storage, and Shipping process was adequate, satisfactorily implemented, and effective.

5.2.5 Inspection, Test, and Operating Status

Procedures reviewed in this area were determined to adequately address the appropriate upper-tier requirements. The audit team interviewed personnel and reviewed several WIPP site maintenance work orders and status indicators, including Hold and Witness Point and Lock Out/Tag Out, which were appropriately specified for placement, verification, and removal. No concerns were identified.

The audit team concluded that the Inspection, Test, and Operating Status process was adequate, satisfactorily implemented, and effective.

5.2.6 Control of Nonconforming Items

The audit team interviewed personnel and reviewed NCRs for appropriate tracking, verification of disposition/resolution, revisions, and closures. RDRs were determined to be properly used at receipt or receipt inspection at the warehouse to document and resolve material/equipment items processed at receipt. The audit team verified that "Hold" and "QA Hold" tags were attached to the nonconforming items and properly completed, and items were segregated to prevent inadvertent use. The audit team concluded that Monthly Hold Tag Verification is conducted and results are entered into a Verification Log. One condition adverse to quality was identified, resulting in Corrective Action Report (CAR) 11-003, and was issued under separate cover (see section 6.1).

The audit team concluded that Control of Nonconforming Items was adequate, satisfactorily implemented, and effective.

5.2.7 Corrective Action

The corrective action process was evaluated through personnel interviews and review of documentation. Numerous WIPP Forms, which are used to document programmatic issues and to obtain corrective action, were reviewed. The forms were found to be completed in accordance with the governing procedure, WP 04-IM1000.

The audit team attended the weekly WIPP Screening Committee meeting. Fourteen individuals attended the meeting representing Operations, Safety, Quality Assurance, Engineering, Nuclear Safety, Environmental, Maintenance, Underground, Waste Handling, and Transportation. Sixteen WIPP Forms were processed by the committee. The forms concerned new issues for review and assignment, items for closure, and corrective action plans to be evaluated. All personnel at the meeting were attentive and participated fully in discussions. The meeting was held in a business-like manner. The chairperson allowed sufficient discussion and maintained control of the meeting.

The audit team concluded that the Corrective Action process was adequate, satisfactorily implemented, and effective.

5.2.8 Quality Assurance Records

Evaluation of the WTS processing of records was based on interviews, review of procedures, review of Records Inventory and Disposition Schedules (RIDS), and review of other objective evidence. The audit team reviewed procedures WP 13-1, Revision 29, *Quality Assurance Program Description*; 15-RM, Revision 2, *WIPP Records Management Program*; 15-RM3002, Revision 1, *Records Filing, Inventorying, Scheduling, & Dispositioning*; 15-RM3003, Revision 0, *Disposal of Nonpermanent Records in Office*; 15-RM3005, Revision 2, *Records Transfer and Retrieval*. WP 15-RM3006, Revision 0, *Records Inventory and Disposition Schedule Review and Approval*, was included during the review of the selected RIDS. WIPP Records Archive personnel were interviewed to support the WTS audit only.

The audit team interviewed five randomly selected Records Coordinators and reviewed their assigned RIDS. Each RIDS evaluated had been completed and approved as required by WP 15-RM3006, was readily available from the Records Coordinators, and was current. Samples of records from each RIDS were viewed at the appropriate storage location. The interviews and review of records and RIDS demonstrated compliance with CBFO QAPD requirements and the WTS implementing procedures.

A sample of training records for eight WTS Records Coordinators was reviewed. The audit team found that the records evaluated were complete and current.

One condition adverse to quality relating to one storage location not having posted Access Lists was identified. This was corrected during the audit (CDA) by posting Access Lists on the appropriate file cabinets (see section 6.2).

The audit team determined that the WTS procedures were adequate and satisfactorily implemented, and that the WTS Quality Assurance Records program was effective.

5.2.9 Audits

Evaluation of the WTS process for the conduct of independent assessments was based on interviews and review of procedures and objective evidence. The procedures reviewed included WP 13-1, Revision 29, *Quality Assurance Program Description*; 13-QA.03, Revision 17, *QA Independent Assessment Program*; and 13-QA3012, Revision 17, *Supplier Evaluation/Qualification*.

The audit team found that internal and external assessment schedules were developed and maintained for WTS. Each schedule is posted and accessible on the WTS QA Intranet site. Internal audits and surveillances are scheduled as needed, with some on a three-year schedule and others on an annual schedule. For internal assessments conducted on a three-year schedule, one-third of the assessment is completed each year.

The audit team found that one required assessment (cyber security required by DOE O 226.1A) was not on the schedule. A recommendation has been made by CBFO to look internally at this issue. It is a policy question and will be handled within CBFO. WTS will not be held accountable for this issue.

Supplier evaluations/qualifications are performed annually using a questionnaire, audit, Energy Facility Contractors Group (EFCOG) audit, review of past performance for the WIPP, and other sources of information. The QSL Coordinator reviews the QSL at least monthly to identify suppliers requiring evaluation. Evaluations are scheduled as appropriate. New suppliers are identified to the QA Program Manager and QSL Coordinator and evaluations are performed in accordance with WP 13-QA3012. A sample of supplier audits showed that the procedure had been followed, and that the requirement retention statement and allowed products statement had been included.

Internal assessments are planned using three primary documents: the WTS QA Independent Assessment Master Table, the WTS QA Independent Assessment Subject Matter Procedure Reference Guide, and the WTS QA Independent Assessment Matrix WIPP DSA/TSR Elements and Key Attributes. These documents provide extensive information and guidance to the assessment team leader for planning each assessment. A sample of internal independent assessments and interviews with team leaders showed that the three planning documents were used extensively in the planning and reporting of each assessment.

The samples of internal and external assessments showed that the records files were up to date and stored and maintained in accordance with WTS records procedures. Assessment files were verified to be on the appropriate RIDS.

A sample of four team leaders selected from the assessment samples showed that all met qualification requirements as required by WP13-QA.03. Training was verified to be current.

The audit team determined that the WTS procedures were adequate and implemented, and that the processes ensured the WTS Audits program was effective.

6.0 SUMMARY OF DEFICIENCIES

6.1 Corrective Action Reports (CARs)

During the audit, the audit team may identify conditions adverse to quality and document such conditions on CARs.

Condition Adverse to Quality – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

Significant Condition Adverse to Quality – A condition which, if uncorrected, could have a serious effect on safety, operability, waste confinement, TRU waste site certification, compliance demonstration, or the effective implementation of the QA program.

During Audit A-11-02, the audit team identified one CAQ that required the issuance of CBFO CAR 11-003.

CAR 11-003

WP 13-QA3004, Revision 11, Section 3.6, states, "Quality Engineer/NCR Coordinator, forward a copy of any NCR involving Type "B" packaging to the Packaging Group for the purpose of screening the nonconformance to determine the need for reporting to the NCR according to the provisions of WP 08-PT 3005." The audit team verified that there is no documented evidence that the Packaging Group performed a Type "B" Packing defects review for potential NRC reportability for NCRs 2010-10 and 2010-39.

6.2 Deficiencies Corrected During the Audit (CDAs)

During the audit, the audit team may identify CAQs. The audit team members and the Audit Team Leader (ATL) evaluate the CAQs to determine if they are significant.

Once a determination is made that the CAQ is not significant, the audit team members, in conjunction with the ATL, determine if the CAQ is an isolated case requiring only remedial action and therefore can be a CDA. Upon determination that the CAQ is isolated, the audit team members, in conjunction with the ATL, evaluate/verify any objective evidence/actions submitted or taken by the audited organization and determine if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been corrected, the ATL categorizes the condition as a CDA according to the following definition.

Corrected During the Audit (CDA) – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence, and where correction of the deficiency can be verified prior to the end of the audit. Examples include one or two minor changes required to correct a procedure (isolated), one or two forms not signed or dated (isolated), and one or two individuals who have not completed a reading assignment.

One CAQ was corrected during Audit A-11-02. WP 15-RM3005, Revision 2, Section 7.5, Storage, Maintenance, and Protection of QA Records, 5th paragraph, states, "Unauthorized access to QA records in active storage will be prevented by:

- Generating, posting, and maintaining a list designating the personnel permitted access to the QA records."

As a corrective action, the Business Management Records Coordinator prepared Access Lists and posted them on each file cabinet. This action was verified by the audit team.

7.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During the Audit
- Attachment 2: WTS Documents Evaluated
- Attachment 3: Summary Table of Audit Results

PERSONNEL CONTACTED DURING THE AUDIT

NAME	ORGANIZATION / DEPARTMENT	PREAUDIT MEETING	CONTACTED DURING AUDIT	POSTAUDIT MEETING
Allen, Bill	WTS/QA Integration	X		
Allen, Pat	WTS/Operations		X	
Ater, Ed	WTS/QA Oversight Programs			X
Atwood, Kay	WTS/Procurement		X	
Beeman, Bob	WTS/Engineering		X	
Bellows, H. W.	WTS/OPS	X		
Bostick, Leroy	WTS/OPS	X		
Brewer, Danny	WTS/Maintenance Operations/Engineering		X	
Britain, Randy	WTS/OPS	X		
Bryan, Wes	WTS/OPS			X
Carrillo, Caroline	WTS/Safety and Health		X	
Chavarria, A.D.	WTS/QA	X		X
Cullum, Shari	WTS/Business Management		X	
Damewood, Dave	WTS/QA		X	
Davis, Mark	WTS/QA	X		X
Deiarnski, Mark C.	WTS/OPS	X		
Estrada, Leo	WTS/QA	X	X	X
Farnsworth, Jill	WTS/Engineering		X	
Faulk, Bruce	WTS/QA		X	X
Fierro, Sam	WTS/Operations		X	
Flynn, Ed	WTS/OPS/Maintenance	X	X	X
Fox, Michael	L&M Technologies/Records	X	X	
Garcia, John J.	WTS/QA	X	X	
Hendrickson, M. S.	WTS/Compliance		X	
Hoff, Jon E.	WTS/QA		X	X
Hood, Dale	WTS/QA		X	
Ito, Fran	WTS/PA	X		
Jierree, Candice	WTS/PA	X		
Johnson, Angela	WTS/Transportation		X	
Jomeling, Dave S.	WTS/OPS	X		
Keathley, Martin	WTS/QA Programs	X	X	X

PERSONNEL CONTACTED DURING THE AUDIT

NAME	ORGANIZATION / DEPARTMENT	PREAUDIT MEETING	CONTACTED DURING AUDIT	POSTAUDIT MEETING
Klein, Kit	WTS/QA	X		
Lichty, Tom	WTS/Technical Training		X	
McGonagil, Steve	WTS/Packaging Group		X	
Mullins, Mary Ann	WTS/QA	X	X	X
Myers, Thomas	S. M. Stoller/Project Manager	X		
Navarrette, Amy	WTS/QA/Records		X	
Navarrette, Collen	L&M Technologies/Inventory Control		X	
Nesser, Catherine	WTS/QA	X	X	
Nieman, Bob	WTS/Transportation		X	
Patterson, Terry	WTS/ Ops/ Maintenance		X	
Phillips, James	WTS/Operations		X	
Proctor, Tricia L.	WTS/QA	X	X	X
Rotert, Tim	WTS/Safety and Health		X	
Sanders, Curt	WTS/QA		X	
Soto Escareno, Sonya	WTS/Transportation		X	
Strait, A.E.	WTS/Operations		X	
Strong, Gary R.	WTS/QA	X		X
Taylor, Roland	WTS/Procurement		X	
Tidwell, Sherry	WTS/Maintenance/Ops		X	
Vandekraats, John	WTS/Ops	X		
Vasquez, Joe	L&M Technologies/ Inventory Control	X	X	X
Whiting, Lynn	WTS/Procurement Services		X	
Willis, Joe	WTS/Packaging		X	
Yocum, Pat	WTS/Deputy Manager	X		

WTS Procedures Evaluated		
Number	Proc. Number	Applicable WTS Procedures
1	WP 04-IM1000, Revision 7	Issues Management Processing of WIPP Forms
2	WP 08-PT.03, Revision 7	WIPP QA Program Plan for Type "B" Packaging
3	WP 09-8, Revision 7	WIPP Specification Preparation
4	WP 10-2, Revision 32	Maintenance Operations Instruction Manual
5	WP 10-AD.01, Revision 7	Metrology Program
6	WP 10-AD3028, Revision 8	Calibration and Control of M&TE
7	WP 10-AD3031, Revision 3	M&TE/M&DC Inspections
8	WP 10-WC3011, Revision 23	Maintenance Process
9	WP 13-1, Revision 29	WTS Quality Assurance Program Description
10	WP 13-QA.03, Revision 17	QA Independent Assessment Program
11	WP 13-QA1003, Revision 20	QA Receipt/Source Inspections
12	WP 13-QA1006, Revision 9	QA Plant Inspections
13	WP 13-QA3004, Revision 11	Nonconformance Report
14	WP 13-QA3012, Revision 17	Supplier Evaluation/Qualification
15	WP 15-PM3517, Revision 23	Stores Inventory Control
16	WP 15-PM3518, Revision 1	Material Receiving
17	WP 15-PM3525, Revision 8	Preparation and Processing of Shipping Authorizations
18	WP 15-PM3526, Revision 1	Receipt Discrepancies
19	WP 15-RM, Revision 2	WIPP Records Management Program
20	WP 15-RM3002, Revision 1	Records Filing, Inventorying, Scheduling, and Dispositioning
21	WP 15-RM3003, Revision 0	Disposal of Nonpermanent Records in Office
22	WP 15-RM3005, Revision 2	Records Transfer and Retrieval

Summary Table of Audit Results

Audit Elements	Concern Classification				QA Evaluation		
	CARs	CDAs	Obs	Rec	Adequacy	Implementation	Effectiveness
Inspection					A	S	E
Test Control					A	S	E
Control of Measurement and Test Equipment					A	S	E
Handling, Storage, and Shipping					A	S	E
Inspection, Test, and Operating Status					A	S	E
Control of Nonconforming Items	X				A	S	E
Corrective Action					A	S	E
Quality Assurance Records		X			A	S	E
Audits					A	S	E
TOTALS	1	1	0	0	A	S	E

Definitions

E = Effective

CAR = Corrective Action Report

Rec = Recommendation

Obs = Observation

CDA = Corrected During Audit A = Adequate

S = Satisfactory

M = Marginal