

United States Government



Department of Energy

memorandum

 Carlsbad Field Office
 Carlsbad, New Mexico 88221

DATE: June 27, 2002

REPLY TO
ATTN OF: CBFO:QA:MLC:GS:02-1208:UFC 2300.00

SUBJECT: Transmittal of Audit Report for Audit A-02-24

TO: John Lee, WTS



The Carlsbad Field Office (CBFO) performed Audit A-02-24 of Westinghouse TRU Solutions (WTS) on May 20-21, 2002. The audit team concluded that the overall status of the WTS Quality Assurance Program is adequate, satisfactorily implemented, and effective.

The details of the audit as well as conclusions are detailed within the attached audit report.

If you have any questions or comments, please contact me at (505) 234-7442.

M. Lea Chism //signature on file//
 M. Lea Chism
 Quality Assurance Specialist

Attachment

cc w/attachment:

A. Holland, CBFO	*ED
M. Lipscomb, WTS	*ED
L. Will, WTS	*ED
M. Eagle, EPA	*ED
B. Walker, EEG	*ED
D. Winter, DNFSB	*ED
S. Zappe, NMED	*ED
S. Davis, CTAC	*ED
T. Bowden, CTAC	
P. Roush, WTS	
CBFO Audit File	
CBFO M&RC	



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

AUDIT REPORT

OF

WESTINGHOUSE TRU SOLUTIONS (WTS)

CARLSBAD, NEW MEXICO

AUDIT NUMBER A-02-24

May 20 - 21, 2002

WTS QUALITY ASSURANCE PROGRAM



Prepared By: Steve Davis //signature on file//

Steve Davis
Audit Team Leader, CTAC

Date: 6/21/02

Approved By: Dennis S. Miehl for //signature on file//

Ava L. Holland
CBFO QA Manager

Date: 6/27/02

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Audit A-02-24 was conducted to evaluate the adequacy, implementation, and effectiveness of selected Westinghouse TRU Solutions (WTS) Quality Assurance Program Document (QAPD) requirements in accordance with the CBFO QAPD and ASME/NQA-1, 1989, Criteria 1, 2 and 3. The applicable sections of the WTS QAPD evaluated during the audit included sections 1.1, 1.2, 1.3, 2.2, 3.1 and 3.2 and the associated implementing procedures. The audit also included evaluating continued effectiveness of corrective action for corrective action reports (CARs) generated during the previous audit. The audit was conducted at the Waste Isolation Pilot Plant (WIPP) site on May 20 - 21, 2002.

The audit team concluded that overall, the WTS Quality Assurance (QA) Program is adequate relative to the flow-down of requirements from the CBFO QAPD and ASME/NQA-1 Criteria 1, 2, and 3. In addition, the audit team concluded that implementation is satisfactory and the program is effective. The audit team also found that corrective action continues to be effective for CARs previously identified.

The audit team identified three observations during the performance of the audit, one of in the area of organization, and the other two in the area of design control.

2.0 SCOPE

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

The following elements were evaluated in accordance with the CBFO QAPD:

- Organization
- Quality Assurance Program
- Personnel Qualification and Training
- Quality Improvement
- Design Control

The evaluation of the WTS QA documents for adequacy was based on ASME NQA- 1, 1989, Criteria 1, 2, and 3, and the CBFO QAPD, CAO-94-1012, R3, November 1999.

3.0 AUDIT TEAM AND OBSERVERS

CAO AUDIT TEAM

Steve Davis	Audit Team Leader, CTAC
Wayne Ledford	Auditor, CTAC
Pete Rodriguez	Auditor, CTAC
Chet Wright	Auditor, CTAC

OBSERVERS/INSPECTORS

Ben Walker	Observer, EEG
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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 Conference Room on May 20, 2002. The audit was concluded with a post-audit conference held in the Guard and Security Building Conference Room on May 21, 2002.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

The audit team concluded that overall the WTS QA Program is adequate relative to the flow-down of requirements from the CBFO QAPD and ASME/NQA-1 Criteria 1, 2, and 3. In addition, the audit team concluded that implementation is satisfactory and the program is effective. The audit team also found that corrective action continues to be effective for CARs previously identified.

5.2 QA Program Audit Details

WTS QA Program results for the audit are identified in Attachment 2. The audit was conducted through interviews with key personnel, review of objective evidence, and observation of activities (as applicable). The results and audit conclusions are contained within the audit checklists that are maintained by CBFO as QA records.

5.2.1 Organization

WTS QA Program activities and organizational responsibilities were evaluated. The evaluation included the review of QA plans, procedures, audit and assessment schedules, and the corrective action process for compliance with the CBFO QAPD. This evaluation included a review of open and closed CARs, semi-annual trend reports, lessons learned documentation, and work planning documents, including software identification and control.

The WTS QAPD and Procedure WP 13-QA.04, "Quality Assurance Department Administrative Program" describes the WTS QA Program activities and defines organizational responsibilities. The independence and authority of the WTS QA Organization was verified through interviews with QA management/personnel and review of implementing procedures. The audit included a review of the WTS organizational chart, dated 01/23/02, compared with the other departmental organization charts that are developed and updated on a more frequent basis. The reviews resulted in one observation being issued to document and identify the discrepancies identified between the two types of organizational charts.

The audit/assessment schedule for FY 2002 and completed audits (internal/external) were reviewed and determined to be adequately maintained in accordance with WTS program requirements. One observation was identified relative to the schedule of assessments in the area of design control. The details of this observation are captured in section 5.2.6 and section 6 of this report.

CARs, both open and closed, and the trending report for FY 2002 were verified to be maintained and controlled in accordance with applicable WTS QA Program requirements. In conclusion, the WTS organization meets the applicable elements of ASME/NQA-1, Criterion 1. The WTS organization was determined to be adequate, satisfactorily implemented, and effective.

5.2.2 QA Program, Personnel Qualification and Training and Management Assessment

The WTS QA program was assessed against ASME/NQA-1 Criterion 2 for the subject audit. This element was assessed using an NQA-1 standard checklist containing all the basic requirements of the criterion. The current WTS QAPD (WP 13-1, Rev. 22, 3/27/02) was reviewed and verified, as was the current procedures matrix, to be in keeping with CBFO (CAO QAPD) requirements.

The WTS QAPD was reviewed for inclusion of the basic requirements of NQA-1 Criterion 2. The WTS implementing procedures (13-QA.04, *Quality Assurance Department Administrative Program*, 13-QA3005, *Graded Approach to Application of QA Controls*, and the *Waste Isolation Pilot Plant Training Implementation Matrix (TIM)*) were also examined. Additionally, the annual summary report for calendar year 2001, per the requirements of MP 1.20, Management Assessments, was reviewed and

confirmed to include summaries from the various departments (i.e., Business Management, ES&H, H R, Office of General Manager, Operations Department(s), and QA Processes. In conclusion, it was determined that the QA Program section of the WTS QAPD, in conjunction with the aforementioned documents, were adequate, satisfactorily implemented, and effective.

5.2.2 Quality Improvement

The WTS quality improvement processes, were evaluated including corrective action, nonconformances and deficiencies, the QA graded approach, performance trending, item hold tagging, documentation and control of Conditions Adverse to Quality (CAQs) and Significant Conditions Adverse to Quality (SCAQs), and work suspension. During this evaluation, objective evidence for disposition of nonconforming items, corrective action planning and follow-up, and improvement analysis of quality performance data was reviewed. The results of this review was consider satisfactory.

5.2.6 Design Control

The processes applied by WTS to control the design and configuration of the WIPP facility were reviewed during the audit. The audit included interviews with responsible personnel and reviews of objective evidence. The Engineering Change Order (ECO) process was reviewed. ECOs documenting changes to the facility configuration were reviewed. The ECOs reviewed contained levels of identification of design inputs and interfaces that were appropriate to the complexity of the design change. Design verifications were also appropriately specified and performed.

The maintenance work order process was reviewed to assure that work entailing modifications to the facility were appropriately classified and design documents were revised as required. Several "M" type work orders were reviewed; this type of work orders is identified as modifying the facility configuration. In all cases an ECO had been generated to document the design changes resulting from the work order, as required. Several "C" type work orders were also reviewed. This type of work order does not result in a facility modification. All work orders reviewed were appropriately classified.

Drawing control was reviewed during the audit to verify the continued implementation of the corrective actions from CBFO CAR 01-032.

The WTS design control process was determined to be adequate, satisfactorily implemented, and effective.

Two observations were identified during the audit and are discussed in section 6.

6.0 OBSERVATIONS

6.1 Corrective Action Reports

6.2 Observations

The following three observations were identified during the audit:

1. CBFO QAPD Section 1.1.1.4.B requires that external interfaces between organizations, the internal interfaces between organizational units, and interface changes shall be documented. During the audit team's review of organizational responsibilities and interfaces, the audit team found several organizational charts which did not agree with each other in defining responsibilities and interfaces within WTS. These organizational charts identified different groups, personnel and possibly, responsibilities and lines of communication. WTS should control the issuance of a primary organizational chart that consistently depicts the changes to the overall organizational structure including department units, positions, and responsibilities. This organizational chart, which identifies all functional departments, positions, and responsibilities, should be controlled and updated at least quarterly.
2. The audit team noted during the review of audits and assessments of activities affecting quality that design control is not scheduled to be assessed by WTS QA until November 2004. Because WTS QA is not currently involved in the review of engineering documents (such as ECOs) as they are generated, WTS should consider conducting a surveillance of design control in FY 2002 or 2003.
3. WP09-CN3007 requires that new drawings contain the "approval signature" of the drafter. Current practice is for the drafter to enter his/her name using Auto Cad, without actually signing the drawing. The procedure also requires the signature of the "cognizant design manager" (CDM), while the practice is to obtain approval of the "cognizant manager" (usually this is also the CDM). A revision to CN3007 is in QMIS for approval. This will correct these issues.

7.0 LIST OF ATTACHMENTS

Attachment 1: Personnel Contacted During the Audit

Attachment 2: Summary Table of Audit Results

Summary Table of Audit Results

Audit Elements	Concern Classification				QA Evaluation		
	CARs	CDAs	Obs	Rec	Adequacy	Implementation	Effectiveness
Activity							
Organization					A	S	E
QA Program			1		A	S	E
Personnel Qual. & Training					A	S	E
Quality Improvement					A	S	E
Design			2		A	S	E
TOTALS			3		A	S	E

Definitions

E = Effective
 S = Satisfactory
 I = Indeterminate
 M=Marginal

CAR = Corrective Action Report
 CDA = Corrected During Audit
 NE = Not Effective

Obs =
 Observation
 Rec = Recommendation
 A = Adequate
 NA = Not Adequate