Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

NOV 1 5 2010

Mr. Jon E. Hoff, Manager
Quality Assurance
Washington TRU Solutions
P.O. Box 2078
Carlsbad, NM 88221-2078

Subject: Surveillance Report S-11-01, WTS Waste Data System

Dear Mr. Hoff:

The Carlsbad Field Office (CBFO) conducted a surveillance of the Washington TRU Solutions (WTS) Waste Isolation Pilot Plant (WIPP) Waste Data System (WDS) software quality assurance (SQA) activities performed October 19 through 21, 2010.

The surveillance concluded that the WDS procedures are adequate, that procedure steps are satisfactorily implemented and documented, and that implementation of the WDS process effectively provides for control of development and promotion of the WDS software to production. The CBFO surveillance report is enclosed.

Please contact me at (575) 234-7442 if you have any questions regarding this surveillance report.

Sincerely,

M. Lea Chism
Quality Assurance Specialist

Enclosure

cc: w/enclosure

A. Holland, CBFO	*ED	S. Zappe, NMED	ED
D. Gadbury, CBFO	ED	S. Holmes, NMED	ED
F. Sharif, WTS	ED	T. Kesterson, DOE OB WIPP NMED	ED
M. A. Mullins, WTS	ED	D. Winters, DNFSB	ED
T. Peake, EPA	ED	N. Frank, CTAC	ED
M. Eagle, EPA	ED	K. Martin, CTAC	ED
E. Feltcorn, EPA	ED	WIPP Operating Record	ED
R. Joglekar, EPA	ED	CBFO QA File	
S. Ghose, EPA	ED	CBFO M&RC	
R. Lee, EPA	ED	*ED denotes electronic distribution	

CBFO SURVEILLANCE REPORT

Surveillance Number: S-11-01   **Date of Surveillance:** October 19 – 21, 2010

Surveillance Title: Waste Data System

Organization: Washington TRU Solutions, LLC (WTS)

Surveillance Team:

Norman Frank	Surveillance Team Leader, CBFO Technical Assistance Contractor (CTAC)
M. Lea Chism	Quality Assurance Representative, CBFO
Greg Knox	Auditor, CTAC

Surveillance Scope:

The surveillance team evaluated the adequacy, implementation, and effectiveness of software quality assurance (SQA) controls performed by WTS related to the development of the Waste Data System (WDS), a web-based software application that incorporates elements of the WIPP Waste Information System (WWIS) software application.

NOTE: Surveillance S-10-13, performed November 10 – 12, 2009, addressed SQA activities performed by WTS with respect to the WDS development. Changes to this documentation were reviewed during this surveillance.

Results:

Activities Evaluated

The surveillance team interviewed WTS personnel regarding their work in using, populating, and reviewing the information in the WDS. This included Database Administrator (DA) approval of containers and shipments from each site.

The following documents were evaluated during the surveillance:

- DOE/WIPP 09-3427, *WDS User's Manual*
- WP 05-WH.02, *WIPP Waste Handling Operations WDS User's Manual*
- WP 08-NT.01, *WDS Program and Data Management Plan*
- WP 08-NT.03, *Waste Stream Profile Form Review and Approval Program*
- WP 08-NT.04, *WDS Configuration Management & SQA*
- WP 08-NT.05, *WDS Software Verification and Validation Plan*

- WP 08-NT.06, *WDS Software Requirements Specification*
- WP 08-NT.07, *WDS Software Design Description*
- WP 08-NT.14, *WDS Contingency and Incident Response Plan*
- WP 08-NT.15, *WDS Maintenance of Administrative Reference Tables*

Revision 11 of DOE/CBFO-94-1012, *CBFO Quality Assurance Program Document* (QAPD), was used as an upper-tier reference document stating SQA requirements for this activity.

Program Adequacy, Implementation, and Effectiveness

The WDS was deployed in December 2009. The software contractor, International Software Engineering Services (Insei), was placed on the WTS Qualified Supplier List in 2004 and has been evaluated annually by WTS QA to ensure the quality of work being performed was satisfactory. An independent assessment was contracted by WTS and performed by Architexs, with the assessment report issued 1/21/2010. This assessment included a detailed review of the software, software configuration management, and coding performed by Insei. Issues identified were tracked through to completion using the WTS issues tracking log. Insei provides configuration control of all aspects and modules of the WDS. WTS performed acceptance and installation testing prior to deployment of any changes. Beta testing was performed by selected users following a beta test plan prior to final deployment.

The surveillance team determined that the WTS-specified requirements for the WDS had been addressed and translated into design requirements and software implementation documents. Matrices tracked each requirement through the design phase into the final code. Action items and "issues" resulting from development and testing were documented and tracked through to completion. The WDS provides a "dashboard" for each user that allows the user to access only those actions the user is authorized to perform.

The team reviewed WTS controlling documents for WDS compliance to the upper-tier documents DOE/CBFO-94-1012, CBFO QAPD, Revision 11, and DOE/WIPP-09-3427, *WDS User's Manual*, Revision 1. Documents reviewed were WP 05-WH.02, *WIPP Waste Handling Operations WDS User's Manual*, WP 08-NT.14, *Waste Data System Contingency and Incident Response Plan*, WP 08-NT.15, *WDS Maintenance of Administrative Reference Tables*, and WP 13-1, WTS *Quality Assurance Program Description*. The team concluded that the established QA program for these activities was adequate for compliance with the CBFO QAPD and WDS User's Manual, and that the associated implementing procedures were satisfactorily implemented and effective.

The surveillance team concluded that WTS procedures are adequate and being satisfactorily implemented. The deployment of the WDS, including the testing program performed by WTS prior to deployment, was effective. The continued implementation of the WTS SQA process provides for effective control of WDS maintenance and use.

Corrective Actions:

As a result of this surveillance, Corrective Action Reports (CARs) 11-004 and 11-005 were issued under separate cover to WTS. The CARs are summarized below.

CAR 11-004

The DA actions of WP 08-NT.03, para. 4.0 are not being performed as noted in the bulleted items. Most information is pulled from electronic databases and verified to be correct. For example, referring to the 5th bullet, the TWBIR is no longer applicable and the comparison is done against the content of the ATWIR (DOE/TRU-09-3425, R0). Referring to the 6th bullet, the actual WSPF is not directly referenced by the DA. Instead the information from the site certification letter is used to determine the acceptable processes.

CAR 11-005

QA records were not being stored in 1-hour, locked file cabinets with access control.

1. The paper copy (record copy) of the Change Log of the WWIS for returned shipments was being stored in a standard, unlocked file cabinet in a cubicle. This document is a record per WP 08-NT.04, Rev. 16, para. 7.0.

2. The paper copy of the verification and validation (V&V) and various acceptance tests performed on the WDS were being stored in open shelves in a hallway. A separate electronic copy is filed in a locked, 1-hour fire-rated cabinet. These are designated as lifetime records on the Records Inventory and Disposition Schedule (RIDS).

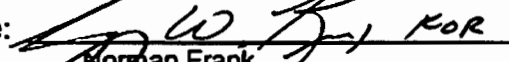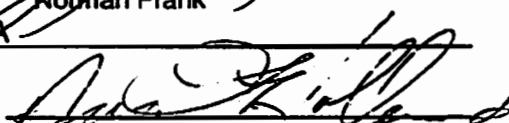Deficiencies Corrected During the Surveillance

No deficiencies were identified that were corrected during the surveillance.

Observations

No Observations were made as a result of the surveillance.

Recommendations

The Oracle "role" of "Transportation – SME" is confusing, with the WTS official SME (subject matter expert) designation requiring specific training and qualification. The audit team recommends that this be evaluated for change.

Surveillance Team Leader Signature: _____ *FoR*   Date: _11/2/2010_
                                    Norman Frank

Assistant Manager/Office Director: _N/A_____   Date: _____

CBFO QA Director Approval Signature: _____ Date: _11/15/10_