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

Subject: Surveillance Report S-12-09, WTS Subsidence Monitoring Program  

Dear Mr. Hoff,

The Carlsbad Field Office performed Surveillance S-12-09 of the Washington TRU Solutions (WTS) Subsidence Monitoring Program at the Waste Isolation Pilot Plant site, December 13 – 15, 2011. The surveillance team concluded that the overall status of the program is adequate, satisfactorily implemented, and effective. No adverse conditions of quality were identified during the surveillance. The details of the surveillance and conclusions are provided in the enclosed surveillance report.

If you have any questions concerning the report, please contact me at (575) 234-7459.

Sincerely,

Richard Farrell  
Senior Quality Assurance Specialist

Enclosure

cc: w/enclosure  
R. Unger, CBFO  
A. Holland, CBFO  
C. Fesmire, CBFO  
E. Preciado, CBFO  
M.F. Sharif, WTS  
M. A. Mullins, WTS  
T. Peake, EPA  
M. Eagle, EPA  
E. Feltcorn, EPA  
R. Joglekar, EPA  
S. Ghose, EPA  
R. Lee, EPA  
J. Kieling, NMED  
T. Kliphuis, NMED  
S. Holmes, NMED  
R. Maestas, NMED  
T. Kesterson, NMED/DOE OB  
J. Marple, NMED/DOE OB  
D. Winters, DNFSB  
R. Castillo, CTAC  
M. Mager, CTAC  
WIPP Operating Record  
CBFO QA File  
CBFO M&R  
*ED denotes electronic distribution
CBFO SURVEILLANCE REPORT

Surveillance Number: S-12-09  Date of Surveillance: December 13 – 15, 2011

Surveillance Title: Subsidence Monitoring Program

Organization: Washington TRU Solutions, LLC (WTS)

Surveillance Team:

- Carlsbad Field Office (CBFO)
- Richard Farrell, CBFO Management Representative
- Team Leader: Rick Castillo, CBFO Technical Assistance Contractor (CTAC)
- Team Member: Margie Martinez, CTAC

Surveillance Scope:

The surveillance evaluated the adequacy, implementation, and effectiveness of the Subsidence Survey Data Acquisition process at the Waste Isolation Pilot Plant (WIPP). The surveillance included review and evaluation of implementing procedures, subsidence monitoring documentation, field observation of a loop survey, and personnel interviews.

Surveillance Results:

Governing Documents/Requirements

The surveillance was based on the current revisions of the following documents:

- WP 13-1, WTS QAPD
- WP 09, Engineering Conduct of Operations
- WP 09-ES-.01, WIPP Underground and Surface Surveying Program
- WP 09-ES4001, Subsidence Survey Data Acquisition Report

Activities Evaluated

The following activities for the Subsidence Survey Data Acquisition Program were evaluated in accordance with the WTS implementing procedures:

- Documentation
- Records
- Equipment Calibration
- Personnel qualification and training
Subsidence Monitoring

The surveillance team evaluated the process required for performing subsidence monitoring, including reviews of log sheets and reports, calibration of equipment, and qualifications of personnel performing the activities. The surveillance team also interviewed the Cognizant Engineer (CE) who performs subsidence monitoring. Personnel responsible for performing subsidence monitoring were confirmed to be trained per WP-09, Engineering Conduct of Operations.

Procedural reviews for WP 09-ES4001, Subsidence Survey Data Acquisition Report, and technical reviews for WP-09, Engineering Conduct of Operations, were confirmed by the surveillance team to be performed by the Cognizant Manager (CM). The surveillance team determined both reviews were conducted according to procedural requirements. It was determined the records from the reviews are located in the Records Center, and are stored in an approved fire-rated cabinet.

A document review and an interview with the CE was conducted in reference to DOE/WIPP 11-2293, WIPP Subsidence Monument Leveling Survey 2010, generated from the most recent subsidence monitoring process in December 2010. The interview and review confirmed the process was performed according to procedural requirements.

The surveillance team verified that the records generated by WP 09-ES4001, Subsidence Survey Data Acquisition Report, are complete and appropriately maintained. Completed records evaluated by the surveillance team included Digital Leveling Log Sheets, LEICA NA 3003 Electronic Digital Level calibration records, System Walkdown Reports, and the 2010 Annual Subsidence Report.

During the Subsidence Survey Data Acquisition Report evaluations, a concern was identified. The surveillance team determined the final subsidence reports were located on the network as required, but the server for the network had recently changed from Questa to HighRolls. The server change resulted in a change of folder location for the final subsidence reports to be posted. Although the most recent final subsidence report was in its finalization process and not posted on the network at the time of the surveillance, the surveillance team was able to locate the previously posted subsidence reports in the HighRolls\Engineering\Archives\Report folder. Procedure WP 09-ES4001, section 2.36, requires the final subsidence report be posted in the Questa\Engineering\Archives\Report folder, and the surveillance team determined a violation could result when posting future final subsidence reports. This concern was classified as an observation, because the concern had no negative impact on any subsidence data generated to date.
Overall, the surveillance team determined that the WTS Subsidence Monitoring Program was adequate, satisfactorily implemented, and effective. No conditions adverse to quality were identified during the surveillance.

**Corrective Actions**

None

**Observations**

One observation was identified during the surveillance, as briefly described below.

**Observation 1**

The surveillance team could not verify the subsidence report is on the network in the Questa/Engineering/Archives/Report folder, but was able to retrieve the report from a new server located in the HighRolls/Engineering/Archives/Report folder. There were no requirement violations at this time, but the potential for a violation exists.

**Recommendations**

None

**Corrected During the Surveillance (CDS)**

None

Surveillance Team Leader Signature: [Signature] Date: 12/25/12

Assistant Manager/Office Director: N/A Date: 

CBFO QA Director Approval: [Signature] Date: 2 Feb/12