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



November 1, 2011

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

Subject: Surveillance Report S-12-02, WTS Mine Safety

Dear Mr. Hoff:

The Carlsbad Field Office conducted Surveillance S-12-02 of Washington TRU Solutions (WTS) Mine Safety at the Waste Isolation Pilot Plant on October 11-13, 2011. With the exception of the concern noted in the enclosed report, the surveillance team concluded that the portion of the WTS program supporting safe mine operations is adequate, satisfactorily implemented, and effective.

If you have any questions concerning this report, please contact me at (575) 234-7482.

Sincerely,

Erin Preciado
Quality Assurance Specialist

Enclosure

cc: w/enclosure
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A. Holland, CBFO
R. Farrell, CBFO
F. Sharif, WTS
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T. Peake, EPA
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ED	D. Winters, DNFSB	ED
ED	M. Mager, CTAC	ED
ED	M. Martinez, CTAC	ED
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CBFO SURVEILLANCE REPORT

Surveillance Number: S-12-02

Date of Surveillance: October 11 – 13, 2011

Surveillance Title: Mine Safety

Organization: Washington TRU Solutions LLC (WTS)

Surveillance Team:

M. Lea Chism	Carlsbad Field Office (CBFO) Quality Assurance Representative
Erin Preciado	CBFO Quality Assurance Representative
Margie Martinez	Surveillance Team Leader, CBFO Technical Assistance Contractor (CTAC)
Randall Allen	Auditor, CTAC
Paul Gomez	Auditor, CTAC
Tommy Putnam	Auditor CTAC
Porf Martinez	Observer, CTAC

Purpose

This surveillance was performed to evaluate the degree of adequacy and implementation of the requirements established to support safe mine operations at the Waste Isolation Pilot Plant (WIPP).

Scope

The scope of this surveillance included a comprehensive review and comparison between applicable upper-tier requirements documents and established program plans and procedures for an adequacy determination. Personnel interviews, reviews of selected documentation and records, and observance of related activities on the surface and underground were performed to determine the effective implementation of the associated mine safety requirements.

Basis

The surveillance was based on the applicable requirements specified in current revisions of the following governing documents:

- DOE/CBFO-94-1012, *Quality Assurance Program Document*
- WIPP Hazardous Waste Facility Permit (HWFP) NM4890139088
- WP 13-1, *WTS Quality Assurance Program Description*
- Applicable WTS implementing procedures established to support safe mine operations

Activities Evaluated:

Checklists were developed based on applicable requirements and used to guide team members during surveillance activities. Specific details and results of interviews and document reviews were noted on completed checklists and/or associated surveillance forms.

Current versions of the following WTS program procedures and the activities prescribed by each, including the resulting records, were evaluated during the course of the surveillance. Those activities being performed during the surveillance were observed as they were performed.

- WP 04-AD3013, *Underground Access Control*
- WP 04-AU1007, *Underground Openings Inspections*
- WP 04-AU1027, *Underground Diesel Engine Emissions Test Request Tag*
- WP 04-VU1001, *Surface Underground Ventilation and Filtration System Operation*
- WP 04-VU1002, *Operability Testing of Underground Filtration*
- WP 04-VU1608, *Underground Ventilation and Filtration System Operation*
- WP 04-VU1612, *WIPP Mine Ventilation Rate Monitoring*
- WP 12-FP3003, *Combustible Loading Controls for the Waste Handling Building and Underground*
- WP 12-IH1828, *Permit Mandated Air Quality Monitoring and Sampling*
- PM041012, *Underground Ventilation Exhaust Fan Motors*
- PM041027, *Underground Exhaust Fans 41-B-700 A & B*
- PM041042, *Underground Exhaust Fans 41-B-860 A, B, & C*
- PM041154, *In-Place Testing of HEPA Filter Units*
- PM041166, *Underground Exhaust Fan 41-B-700 C*
- PM041167, *Underground Exhaust Fan 41-B-700 C*
- PM074027, *Quarterly Diesel Emissions Test*
- PM074061, *U/G Diesel Equipment, 100 Hour, Inspection and Maintenance*
- PM074063, *Drain and Refill Coolant System on U/G Mobile Equipment*
- PM074084, *Underground Rescue Vehicle*
- PM074088, *Simon Aerial Work Platform 100 Hours and 500 Hours Inspection and Maintenance 74-U-603 and 75-H-031*
- PM074117, *U/G Ambulance, 74-Q-012, Annual Inspection and Maintenance*

Underground Access Control

The surveillance team verified the qualifications of personnel who have unescorted access to the underground (U/G) versus personnel who require U/G escorts per WP 04-AD3013. The team verified that unescorted access requires 40-hour Hazard Training, including the use of the EBA 6.5 Self-Contained Self Rescuer. All access is evaluated by the controller in the lamp room, and those who require access during off-shift hours are evaluated by the cognizant engineer. The team verified that all steps requiring monitoring by the controller are completed in the lamp room. Prior to moving into the underground, the team verified that the shaft tender verified brass tags, proper safety equipment, and valid U/G access permits.

U/G access control was verified to be adequate and the applicable procedures were found to be satisfactorily implemented and effective.

Underground Openings Inspections

The surveillance team verified the performance of ground control inspection of ground conditions and roof bolts. Required documentation was reviewed, including a weekly set of daily inspections and records for May, August, and October 2011. Records reviewed were maintained and found to be complete per WP 04-AU1007.

The team verified that personnel performing work on the Panel 5 block wall have completed SAF-501 training.

Underground Openings Inspection was verified as adequate and the applicable procedures were found to be satisfactorily implemented and effective.

Underground Diesel Engine Emissions Test Request Tag

The reporting of this activity is a pre-emptive process per WP 04-AU1027, to be used "if" an operator suspects abnormal emissions. This procedure is rarely used due to the scheduled "Quarterly Emissions Testing," which includes a tagging process to be used if emissions are found to be out of tolerance.

Surface Underground Ventilation and Filtration System Operation

This activity was not performed during this surveillance. It will be covered in a later surveillance.

Operability Testing of Underground Filtration

The surveillance team reviewed Work Orders (WOs) #1104002, #1107723, #1109340, and #1110440, along with training records for maintenance personnel. Documentation using WP 04-VU1002 was verified and found to be satisfactory. Operations pertaining to the use of this procedure were not being conducted at the time of this surveillance.

Underground Ventilation and Filtration System Operation

The surveillance team verified U/G Ventilation and Filtration System Operation and reviewed documentation associated with the process per WP 04-VU1608.

WIPP Mine Ventilation Rate Monitoring

The surveillance team verified the documentation of the flow readings in the U/G and that they met the standard flow rate per WP 04-VU1612. The Central Monitoring Room (CMR) Log was reviewed for weekly rates and rolling averages from which the annual rolling rates are tabulated. The team verified the active disposal room regulator for Panel 6, rooms 5, 6, and 7. The team also verified that the documented times of the airflow on the waste shaft side to be completed at the start of each shift were appropriately completed. These data are maintained on the Room Ventilation Sheets.

Mine Ventilation Rate Monitoring was verified as adequate and the applicable procedures were found to be satisfactorily implemented and effective.

Combustible Loading Controls for the Waste Handling Building and Underground

The surveillance team verified the roles of the Operations Manager, Fire Protection Engineer (FPE), and Maintenance Manager. U/G operations performed the daily checks and completed both the Waste Handling Building (WHB) and the U/G Inspection log sheets. For the WHB and U/G areas, the FPEs filled in the round sheets, which included looking for combustibles in the pathways for both areas. The procedural requirements of WP 12-FP3003 were adhered to by qualified personnel. All information was deemed to be properly documented.

Combustible Loading Controls were determined to be adequate and the applicable procedures were found to be satisfactorily implemented and effective.

Mine Safety and Health Administration Air Quality Monitoring

The surveillance team verified qualifications of personnel who require gas monitoring qualification cards. The team verified that daily air quality monitoring was performed. Results were recorded in the Underground Services Round Sheets. Calibration equipment was determined to be within calibration date prior to use. All equipment used to perform Mine Safety and Health Administration Air Quality Monitoring per Procedure WP 12-IH1828 was checked and found to be functioning correctly.

Underground Ventilation Exhaust Fan Motors

The surveillance team verified the maintenance log for proper calibration and capacitor change-out. Verification of measuring and test equipment (M&TE) for RS0554, RS1174, and AD0507 was reviewed. All were found to be within calibration and the round sheets were found to be properly completed and signed.

The surveillance team performed an evaluation of the actions required to ensure safety in performing preventative maintenance. This evaluation included reviews of the Computerized History and Maintenance Planning System (CHAMPS) work orders for the performance on preventative maintenance for the following:

- underground exhaust fans (PM041027 and PM041042)
- testing of in-place high-efficiency particulate air (HEPA) filter units (PM041154)
- inspections of underground diesel equipment (PM074061)
- inspection of aerial platforms (man lifts) (PM074088)
- inspections of underground ambulance (PM074117)

The team reviewed and verified as adequate the qualifications of personnel performing the maintenance activities listed above.

The surveillance team observed pre-operational briefings of maintenance personnel. The personnel performing the maintenance tasks, including supervisors, discussed all precautions listed in each procedure.

The surveillance team found the preventative maintenance procedures used to safely perform the tasks and processes evaluated were adequate, satisfactorily implemented, and effective.

Underground Exhaust Fan 41-B-700C

The surveillance team verified the documentation of monthly and semi-annual maintenance of U/G exhaust fan #41-B-700C per procedure PM041166. The team verified prerequisites, including Job Hazard Analysis (JHA), were performed. The monthly documentation was provided on WOs #1105607, #1109518, and #1106910. The team verified lubrication, cleaning, and hose replacement were completed, properly documented, and signed.

Underground Exhaust Fan 41-B-700C

The surveillance team verified that semi-annual inspections were authorized and documented on WO #1106909. Lockout and tag-out processes were properly executed. All procedural checks per PM041167 were appropriately documented and signed.

Quarterly Diesel Emissions Test

The surveillance team verified that quarterly combustion tests were completed for U/G diesel equipment and that work inspections were completed, including pre-job inspections and performance of emissions testing. All required information was found to be completed on Attachment 1 per procedure PM074027.

PM074063. Drain and Refill Coolant System on U/G Mobile Equipment

Drain and Refill Coolant System on U/G Mobile Equipment activities were not performed during this surveillance and will be covered in a later surveillance.

PM074084. Underground Rescue Vehicle 74-Q-014

The U/G rescue vehicle has been replaced by an electric vehicle. This procedure did not apply to the rescue vehicle presently used underground.

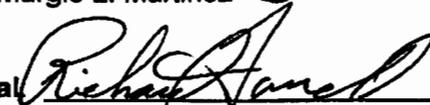
Conclusion:

With the exception of the following concern, the surveillance team concluded that the WTS Mine Safety Program and applicable procedures are adequate for compliance with upper-tier requirements and effectively implemented.

Concern #1: In WO #110257 (74-U-603 100-hour UM Simons Work Platform), the hour meter run-time was not recorded on Attachment 1 per PM074088, *Simon Aerial Work Platform 100 Hours Inspection and Maintenance 74-U-603 and 75-H-31*, section 8, Performance (8.4.3), "record hour meter run time on Attachment 1." After verifying the missing information in CHAMPS, the information was recorded in order to meet the requirements, and verified by the surveillance team.

Surveillance Team Leader:  For
Margie L. Martinez

Date: 10/27/2011

CBFO QA Manager Approval:  For
Randy Unger

Date: 11-1-2011