



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

AUG 7 2012



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

Subject: Surveillance Report S-12-18, WIPP Meteorological Monitoring Program

Dear Mr. Hoff:

The Carlsbad Field Office (CBFO) conducted a surveillance of the Waste Isolation Pilot Plant (WIPP) Meteorological Monitoring Program on July 10-11, 2012. With the exception of the concerns noted in the enclosed report, the results of the surveillance concluded that the WIPP Meteorological Monitoring Program is compliant with regulatory requirements. Please note that program activities were suspended in order to install new instrumentation at the time of the surveillance, and that CBFO will perform a follow-up surveillance in the near-term to further verify the adequacy and effective implementation of the program.

The surveillance resulted in the identification of five concerns resulting in the issuance of two Corrective Action Reports (CARs). The CARs were transmitted to you under a separate cover letter.

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

Sincerely,

Erin Preciado
 Quality Assurance Management Representative

Enclosure

cc: w/enclosure

R. Unger, CBFO	*ED	R. Maestas, NMED	ED
D. Gadbury, CBFO	ED	T. Kesterson, NMED/DOE OB	ED
L. Pacheco, CBFO	ED	J. Marple, NMED/DOE OB	ED
F. Sharif, WTS	ED	D. Winters, DNFSB	ED
M. Mullins, WTS	ED	M. Mager, CTAC	ED
T. Peake, EPA	ED	G. White, CTAC	ED
M. Eagle, EPA	ED	B. Pace, CTAC	ED
E. Felcorn, 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	
J. Kieling, NMED	ED		
T. Kliphuis, NMED	ED		
S. Holmes, NMED	ED		



CBFO SURVEILLANCE REPORT

Surveillance Number: S-12-18 **Date of Surveillance:** July 10 - 11, 2012

Surveillance Title: WIPP Meteorological Monitoring Program

Organization: Washington TRU Solutions, LLC (WTS)

Surveillance Team:

Erin C. Preciado	Management Representative, Carlsbad Field Office (CBFO), Office of Quality Assurance
Berry D. Pace	Team Leader, CBFO Technical Assistance Contractor (CTAC)
Norman Frank	Team Member, CTAC
Amy Howard	Team Member in Training, CTAC

Purpose:

This surveillance was performed to evaluate the degree of adequacy and effective implementation of requirements associated with the Waste Isolation Pilot Plant (WIPP) Meteorological Monitoring Program.

Scope:

The scope of this surveillance included a comprehensive review and comparison of applicable upper-tier documents with established program plans and procedures to determine adequacy. Personnel interviews, review of selected documentation/records, and observance of related activities were performed to determine the degree of effective implementation of associated requirements.

Additionally, the surveillance evaluated the effectiveness of corrective actions taken to address and correct the conditions adverse to quality identified during the previous surveillance of the WIPP Meteorological Program (Surveillance S-09-23).

Basis:

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

- DOE/CBFO-94-1012, *CBFO Quality Assurance Program Document*
- WTS WP 13-1, *Washington TRU Solutions LLC Quality Assurance Program Description*
- WTS WP 02-EM.01, *WIPP Meteorological Program*
- Applicable WTS implementing procedures

Activities Evaluated:

Instrumentation used at the Meteorological Monitoring Station (MetStation) was in the process of being replaced; therefore, no meteorological data collection activities were being performed during the surveillance. The Environmental Monitoring and Hydrology (EM&H) Department was actively revising associated implementing procedures to accommodate the new instrumentation. The surveillance team focused on historical documents and records evidencing meteorological data collection activities and MetStation inspections predating the current surveillance. In addition to the evaluation of previously collected data and inspections, the surveillance team evaluated program elements of the *CBFO Quality Assurance Program Document (QAPD)* applicable to the WIPP Meteorological Monitoring Program to ensure the appropriate flow-down of requirements through the *WTS Quality Assurance Program Description* and implementing procedures. The program elements evaluated included personnel training and qualification, document control, records, work processes, procurement, inspection and testing (including measuring and test equipment [M&TE]), assessments, and software control.

Personnel Training and Qualification

The surveillance team reviewed a sampling of qualification records (Qualification Card #EM-20) for personnel involved in meteorological monitoring data collection activities and confirmed that personnel were appropriately trained and qualified as required.

Document Control and Records

The surveillance team examined completed data collection records and confirmed that appropriate procedures and revisions were utilized during the dates in which the activities were performed. Completion of records and evidence of use of the appropriate method for correction to records was observed during the review. The surveillance team also verified that the document control process for the programs and procedures reviewed was in compliance with applicable requirements. However, as part of the records review, the surveillance team identified four concerns dealing with requirements for the storage of quality assurance (QA) records, lack of classification of QA records on the EM&H Records Inventory and Disposition Schedule (RIDS) as required, and/or inconsistency of the classification of records between the program documents and the EM&H RIDS. These concerns were combined and classified as a condition adverse to quality resulting in the issuance of CBFO CAR 12-028. See the Corrective Actions section of this report for details.

Work Processes

Due to the installation of new meteorological instrumentation being performed during the surveillance, the team witnessed a mock demonstration of data collection activities using the newly installed remote raw data collection software (LoggerNet) and routine MetStation inspection as required by the program. During the performance of the mock MetStation inspection, the surveillance team evaluated instruments (M&TE) being used by WTS Instrumentation and Calibration (I&C) personnel for the installation of new equipment at the MetStation. These instruments, Fluke manufactured pressure module (Asset #PV1047) and process calibrator (Asset # AD1033), were verified as appropriately labeled with unique identification and status of calibration as required. Additionally, the team verified that the instruments were included in the calibration recall system in the WTS Metrology Program and that associated calibrations of certifications were current and on file. The surveillance team determined that work processes (those

performed prior to the surveillance) involving meteorology monitoring activities were sufficiently described by procedures and appropriately performed.

Procurement

The WIPP Meteorological Monitoring Program utilizes the subcontracted services of Meteorological Services, Inc. (MSI), to validate collected data. The surveillance team examined evidence of MSI validation reports completed for the year 2011. Additionally, the surveillance team confirmed the qualification/certification of MSI signatories (meteorologists) on the reports. MSI's inclusion on the WTS Qualified Suppliers List was confirmed and the company was determined to be appropriately graded as Management-Level 2 as required for providing meteorological data validation services. While examining the contract documents associated with MSI, the surveillance team identified a concern relative to required reviews. The Precautions and Limitations section of WP 02-EM3005 requires that MSI procedures used for data validation be reviewed by EM&H and WTS QA as a stipulation for contract award. Evidence could not be provided to confirm this required review. This concern was classified as a condition adverse to quality resulting in the issuance of CBFO CAR 12-029. See the Corrective Actions section of this report for details.

Inspection and Testing

Since new instrumentation was being installed during the course of the surveillance, EM&H performed a mock inspection and test demonstration at the MetStation. MetStation inspections are performed weekly as required. Examination of records of previously performed inspections determined that inspections are being performed and documented as required. As required by the program, semi-annual calibrations of the instruments at the MetStation are performed by WTS I&C personnel. These calibrations are performed in accordance with the WTS Work Control preventive maintenance procedures. The calibrations are scheduled and generated every six months from the Computerized History and Maintenance Planning System (CHAMPS). CHAMPS Work Orders #1109281 and #1202737, completed on September 28, 2011, and April 4, 2012, respectively, revealed that the instrumentation had been appropriately calibrated as required and the "as-found" condition of instruments was acceptable.

Assessments

The surveillance team interviewed responsible WTS QA personnel and reviewed assessment schedules and results of previously completed assessments and confirmed that the Meteorological Monitoring Program is routinely assessed as required. The results of these assessments indicated that the program continues to achieve the desired results.

Software Control

As previously mentioned, the surveillance team witnessed a mock demonstration of the remote collection of meteorological data using newly installed LoggerNet software. Version numbers of the software were verified with the versions indicated on the installation discs acquired from Campbell Scientific. The surveillance team also confirmed that all software being utilized, including associated spreadsheets, had been screened for control in accordance with WP 16-2, *Software Screening and Control*, as required. Additionally, the software was verified as being identified on the WTS Controlled Software List as required.

Follow-Up Evaluation of Effectiveness of Corrective Actions

In addition to the program elements evaluated, the surveillance included an evaluation of actions taken to address and correct conditions adverse to quality identified during the previous surveillance of the program (S-09-23). Surveillance S-09-23 identified four conditions adverse to quality (CARs 09-041 through 09-043) dealing with the lack of internally required QA assessments of the program, QA source inspections of the data validation service provider, daily down-loads of MetStation data, and program documentation references to applicable upper-tier requirements documents. During the course of this surveillance, the surveillance team did not identify any similar conditions to those identified during Surveillance S-09-23. Furthermore, the actions taken to address and correct the conditions were confirmed to be fulfilled. Accordingly, the evidence examined suggests that the actions taken were suitable in preventing recurrence of the deficiencies identified during Surveillance S-09-23.

Corrective Action(s):

CAR 12-028

Conditions Adverse to Quality

1. The Regulatory and Environmental Services (RES) Environmental Monitoring and Hydrology (EM&H) Records Inventory and Disposition Schedule does not specify that meteorology records are QA records.
2. The logbook used to record meteorological station operational checks, inspections, and equipment calibration is not specified as a permanent record on the RES EM&H RIDS.
3. The RES EM&H RIDS does not provide for the retention of reduced data (meteorological) for the life of the plant.
4. The Meteorology (MET) Station "Inspection and Maintenance Logbook" used in the MetStation (Bldg. #472) was observed laying open on top of an instrument in the station. A one-hour fire-rated storage cabinet is not provided for records in the station.

Requirement(s)

1. WP 15-RM3002, *Records Filing, Inventorying, Scheduling, and Dispositioning*, Revision 5, Step 3.1.2, states: "Complete the RIDS per Attachment 3, Instructions for Preparing the RIDS, and referring to Attachment 2, Sample RIDS, or contact WRMS." (For applicability, reference WP 15-RM, *WIPP Records Management Program*, Attachment 3, Definitions – Quality Assurance Record, and WP 13-1, *WTS Quality Assurance Program Description*, Section 1.1, Bullet 1.)
2. WP 02-EM.01, *WIPP Meteorological Program*, Revision 9, Step 6.1, states: "A logbook is maintained to record meteorological station operational checks, inspections, equipment calibration, and to provide a **permanent** record."
3. WP 02-EM.01, *WIPP Meteorological Program*, Revision 9, Step 7.0, states: "Reduced data will be retained for the life of the plant."

4. WP 15-RM, *WIPP Records Management Program*, Step 7.5, Storage, Maintenance, and Protection of QA Records, Bullet 1, states: "Employees responsible for storing, maintaining, and protecting QA records will store QA records in one of the following ways: In a nationally recognized testing laboratory (example: Underwriter Laboratories) listed one-hour fire-rated (or equivalent) container,...."

CAR 12-029

Condition Adverse to Quality

Objective evidence could not be provided to confirm completed reviews of subcontract operating procedures (SOPs) SOP 37 and SOP 38 by EM&H and WTS QA.

Requirement

WP 02-EM3005, *Meteorological Data Handling*, Revision 3, Precautions and Limitations Section, states: "As part of the subcontract award, subcontract procedures will be subject to review by EM&H and Washington TRU Solutions LLC Quality Assurance, and kept in the contract file."

Conclusion:

With the exception of the noted deficiencies, evidence assembled and evaluated during the course of this assessment suggests that WTS meteorological activities conducted prior to the surveillance were performed appropriately and the program was achieving the desired results. As mentioned above, meteorological monitoring activities were temporarily suspended due to the installation of new instrumentation; therefore, a follow-up surveillance in the near-term is recommended to ensure that the program revisions and installation of new instrumentation continue to provide for compliance and effective implementation of program requirements.

Surveillance Team Leader:  Date: 7/26/12
Berry D. Pace

Assistant Manager/Office Director: N/A Date: N/A

CBFO QA Director Approval:  Date: 26 July 12