



U.S. Department of Energy

~~Office of River Protection~~

P.O. Box 450, MSIN H6-60
Richland, Washington 99352

06-TOD-095

NOV 15 2006

Mr. M. S. Spears, President
and Chief Executive Officer
CH2M HILL Hanford Group, Inc.
2440 Stevens Center Place
Richland, Washington 99354

Dear Mr. Spears:

CONTRACT NO. DE-AC27-99RL14047 – U.S. DEPARTMENT OF ENERGY,
OFFICE OF RIVER PROTECTION (ORP) TANK FARM OPERATIONS DIVISION
(TOD) QUARTERLY REPORT COVERING TANK FARM CONTRACTOR
OPERATIONS DURING THE FOURTH QUARTER OF FISCAL YEAR 2006

The ORP TOD Facility Representatives and Technical Staff conducted evaluations of the CH2M HILL Hanford Group, Inc., Tank Farm operations during July, August and September 2006. The attached quarterly report documents the results of the evaluations.

If you have any questions, you may contact me, or you may contact Mark Brown, Director, Tank Farm Operations Division, (509) 373-9150.

Sincerely,

T. Zack Smith, Assistant Manager
for Tank Farms Projects

TOD:MCB

Attachment

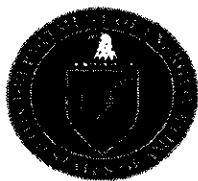
cc w/attach:

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Tank Farms Operations Division Quarterly Report

Fourth Quarter
July thru September 2006

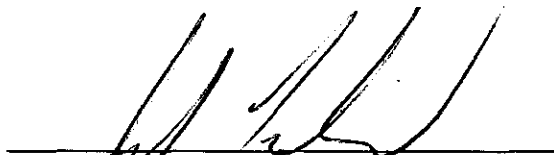


Office of River Protection

ORP MISSION

Retrieve and treat Hanford's tank waste and close the tank farms to protect the Columbia River.

U.S. Department of Energy
Office of River Protection
Tank Farm Operations Division
Quarterly Report
Fourth Quarter
July thru September 2006


GLYN TRENCHARD for Mark C. Brown, Director
Tank Farm Operations Division

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Table of Contents

1.	EXECUTIVE SUMMARY	4
2.	QUARTERLY PERFORMANCE EVALUATION	5
3.	FACILITY REPRESENTATIVE ISSUES.....	9
4.	CLOSURE	9

1. EXECUTIVE SUMMARY

The U.S. Department of Energy (DOE), Office of River Protection (ORP), Tank Farm Operations Division (TOD) Facility Representatives (FR) and Technical Staff completed scheduled and reactive reviews of the Tank Farm Contractor (TFC) and Analytical Services Production Contractor activities and operations at TFC managed facilities during the months of July, August, and September 2006. The reviews conducted during the quarter were focused on evaluating contractor activities, operations and continuous improvement efforts in the following areas: Contaminated Equipment Management, Implementation of Work Control Process Changes, and Corrective Action Management. Below is a summary of the results; detailed results are provided in Section 2 of this report.

A. Contaminated Equipment Management

In the third quarter of Fiscal Year (FY) 2006, the FRs identified problems with contaminated equipment management programs. As a result, this area received an in-depth review by the FRs during the fourth quarter of FY 2006. During this quarter, the FRs determined the contaminated equipment program was much improved and notable progress was made. Although, some deficiencies were identified, the contractor was found to be continually addressing contaminated equipment management issues as resources became available. Management commitment is needed to regularly address the disposition of these issues.

B. Implementation of Work Control Process Changes

Recent major changes in the TFC's work control procedure prompted the FRs to review implementation of the changes. Based on this review, the FRs concluded that the work control process changes were effectively implemented. Some inconsistencies were identified by the FRs and included: Contractor performance of pre-job walkdowns (some were conducted in conjunction with the pre-job brief, vice prior to as described in the procedure), planner level of knowledge of the procedure, and the application of Safety Plans. Improvements in these areas will further strengthen the work control process.

C. Corrective Action Management

The TFC's Corrective Action Management (CAM) program was reviewed by the FRs to determine the effectiveness of the program in adequately addressing FR identified issues, and the program effectiveness in resolving occurrence reportable events and issues. This review is conducted annually by the FRs. The TFC's CAM program is critical to adequately resolve FR issues and occurrence reportable events and issues. Although some deficiencies were identified, the FRs determined that the process was generally effective in identifying causes and corrective actions to prevent recurrence.

2. QUARTERLY PERFORMANCE EVALUATION

Review Scope and Method: The ORP FRs completed evaluations of operations and activities at CH2M HILL Hanford Group, Inc. managed facilities during the fourth quarter of FY 2006, covering the months of July, August and September 2006. The evaluations conducted during the quarter were focused on evaluating contractor activities and continuous improvement in the following areas:

- Contaminated Equipment Management
- Implementation of Work Control Process Changes
- Corrective Action Management

Results: The FRs identified 6 Strengths, no Findings, and 4 Issues during the quarter. The results of the FR reviews were provided to contractor management periodically during the quarter both verbally and via the Tank Farm FR Weekly Reports. The FR issues identified in these reports were also discussed with contractor management at the monthly interface meetings conducted on August 7 and September 11, 2006.

Based on review of the FR Issues, Operational Awareness entries, and occurrence reports submitted during the quarter, no discernible adverse trends were identified. During the quarter, the FRs noted continued improvement in electrical safety and the hazard analysis and work control processes.

The following sections provide details of the results of the focused reviews for the quarter. Refer to Section 3, *Facility Representative Issues*, for a complete listing of FR issues identified during the quarter.

A. Contaminated Equipment Management

An assessment was performed in 2004 on the implementation of the DOE Order 435.1, *Radioactive Waste Management*. Among other issues, this assessment found significant issues with the contractor program to sort legacy contaminated equipment into waste or reusable equipment. More recently, FR weekly reports have identified a case where such equipment was left in the field (AX Farm) to degrade, spreading contamination and calling waste/contaminated equipment management practices into question. As follow-up to those issues, this quarter FRs looked into the current contractor program to sort legacy contaminated equipment into waste or reusable equipment and appropriately manage that equipment from there.

The FRs interviewed the Waste Services contaminated equipment program manager and the contaminated equipment custodians from the various TFC organizations. The FRs also

performed walkthroughs of Radioactive Material Areas (RMA) and tank farms to determine the current state of the program in the field. A sampling of contaminated equipment inventory, justification checklists, and radiological shipment records were also walked down and/or reviewed.

The FRs found that significant progress has been made in recent years in the management of contaminated equipment. Owners and custodians for the equipment are well defined. They maintain a "book" of their inventory and justifications for future use of reusable equipment and are actively driving the program. Much material has been dispositioned as waste (and shipped to Pacific Ecosolutions, LLC), or has been labeled and managed as *contaminated reusable equipment* and consolidated within RMAs. In review of shipment records, FRs noted a deliberate effort to ship off, for treatment and disposal, the long length tank-contacted equipment on a priority basis. This is seen as a positive as it minimizes both the risk of spreading radiological contamination and the perception of improper storage of Resource Conservation and Recovery Act dangerous waste.

Despite the improvement in this arena in recent years, some of the contaminated equipment remains in the field in poor condition. Field labels have been applied to equipment but were found in varied states of legibility, with a large portion of those in S Farm being faded to the point that they are effectively illegible. Some instances were found where the equipment is identified with a number that does not match the "books". Many instances were seen where wrappings and containers are degraded to the point of no longer adequately containing the equipment and the contamination it holds. This condition is not compliant with the requirements of article 414 of HNF-5183, *Tank Farms Radiological Control Manual*. Discussions with the assigned custodians and the waste services program manager reveal that they are aware of the field issues and that they are actively pursuing correction of these issues within the funding and resources limitations. It is apparent that resource allocation to this effort is neither direct nor sufficient to remedy all of these issues in the short term. Although, the contaminated equipment program baseline (WBS 5.08.05.14.01.06) budget was deferred from FY06 until FY09, work to correct deficiencies is occurring on a level-of-effort basis when resources are available.

In summary, the contaminated equipment program is much improved and notable progress has been made. Open issues remain, but are being addressed with available resources. Management commitment is needed to prioritize and correct deficiencies as they are identified.

B. Implementation of Work Control Process Changes

The TFC revised TFC-OPS-MAINT-C-01, *Tank Farm Contractor Work Control*, effective May 31, 2006, as well as TFC-ESHQ-S_SAF-C-02, *Job Hazard Analysis*. The changes involved several different aspects of the work planning/control process. One change

involved the phasing out of Standing Job Hazard Analyses (SJHA) and utilization of the new Worksite Hazard Analysis (WHA) after May 31, 2006. Another change involved condensing of nine different types of work packages into three types of work packages based on the complexity of the work and not necessarily the hazards of the work. The three types of work packages now are: 1) minor work, 2) standard work, and 3) complex work. Each has its own set of requirements as to how the work is to be planned. A third change involved use of the new Safety Plan for complex work.

The FRs evaluated implementation of the various changes to the work planning/control process during this quarter. The FRs interviewed TFC personnel and reviewed procedures as well as the checklists and forms associated with them. The FRs also reviewed work packages and observed team planning meetings, AJRG meetings, and field work, including pre-job briefings.

In general, cognizant TFC personnel were aware of the changes and were knowledgeable of them. Of three work planners interviewed, two were very knowledgeable of the requirements, and one was knowledgeable of the WHA and the phasing out of SJHAs, and knew that there were now three types of work packages, but couldn't remember what they were called. Most of the work packages reviewed had completed WHAs in them, even though they were not required by procedure to do so. This demonstrated that the new WHA process was being followed.

The FRs noted an opportunity for improvement regarding pre-job walkdowns. A pre-job walkdown is required by procedure to be performed with the work crew prior to conducting the pre-job briefing and performing the work. However, it was observed that the pre-job walkdown has become part of the pre-job briefing or field work setup, contrary to the procedure intent. Cognizant TFC personnel agreed.

Another improvement opportunity was also noted. The Job Hazard Analysis procedure requires development of a Safety Plan for complex work that includes identification of critical tasks and associated controls as part of Human Performance Improvement. However, standard work packages reviewed also included Safety Plans for high risk radiological work, even though they are not required by procedure. This was viewed to be a prudent practice and a recommendation was made to review the work control process to consider including Safety Plan development for other types of work activities, such as high risk radiological work, to capture this practice. The TFC entered this item into the Problem Evaluation Request (PER) system as a process improvement item.

In conclusion, the new work planning/control requirements have been successfully implemented by the contractor, but consideration should be given to incorporating some improvements as discussed above.

C. Corrective Action Management

A review of the PER and corrective action management processes was conducted during this quarter to evaluate the process for correcting the adverse conditions identified in the FR Weekly Reports and occurrence reports. Corrective actions for FR identified issues and occurrence reports for the time period of May 30, 2005 through May 30, 2006 were evaluated.

The disposition of approximately 50 PERs (covering both FR issues and occurrence reports) were reviewed to determine if the actions listed on the PER addressed the identified cause and corrected the problem. Each PER was reviewed to determine if: The identified issue was entered into the PER system; the appropriate problem analysis method was used to identify the problem cause; corrective actions were developed, documented, approved, implemented and tracked to validate completion; and the closure records provide documented evidence of corrective action completion.

The review found issues with only three of the approximately 50 PERs evaluated. The issues found were:

- PER 2004-2726, regarding out of specification levels for double-shell tank leak detection pits from 2004 remains open. The FR has noted efforts towards remediating the out of specification condition, and recognizes several unanticipated field conditions were found. Continued action is necessary to meet the Operations Specification Document and close the PER.
- PER 2006-0421, regarding control of leaking fuel/oil from powered equipment, is a PER with Resolution. This PER was issued on February 21, 2006 yet remains open until two spills identified in the extent of condition review can be remediated. An extension was issued for prioritization reasons.
- PER 2006-0885, regarding a painter who was observed not wearing his half-face respirator as required is a Trend Only PER. The FR who raised the issue did not approve grading the PER as Trend Only. Per the PER procedure a Trend Only report requires no resolution, yet in this case the FR is aware of corrective actions taken for the issue. With the PER being graded as a Trend Only, there is no closure evidence in the PER.

Overall the FRs found that contractor personnel regularly coordinated PER closure of FR identified issues with the initiating FR. In using established problem identification and corrective action management processes, TFC demonstrated that deficiencies were adequately captured and that corrective actions were appropriate and effective.

3. FACILITY REPRESENTATIVE ISSUES

DOE ORP FRs identified no Findings and several Issues during the quarter. These were previously provided to the contractor via the FR Weekly Reports. The following table provides a listing of the FR-identified Issues from the quarter.

Issue	FR	Date	PER # (PER-2006-)
Potential existed to exceed specified torque values when tightening Hose-in-Hose Transfer Line primary hose end connection.	Wade	7/17/06	1387
A worker was observed pulling his respirator mask away from his face to communicate with a co-worker while in a Vapor Control Zone.	Sorenson	7/25/06	1404
Accountability of Personnel was Insufficiently Demonstrated during a 222S Emergency Security Drill.	Blanchard	8/23/06	1541
JHA procedural guidance for Safety Plan development should be expanded to include other work classifications beyond only Complex work.	Wade	9/28/06	1741

4. CLOSURE

There were no FR Findings closed during the fourth quarter of FY 2006.