U.S. Department of Energy
Office of River Protection
P.O. Box 450, MSIN H6-60
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FEB 22 2007

07-TOD-014

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 FOR THE FIRST QUARTER OF FISCAL YEAR 2007

The ORP TOD Facility Representatives and Technical Staff conducted evaluations of the Tank Farm and 222-S Laboratory operations and activities during October, November, and December 2006. The attached quarterly report documents the results of the evaluations.

If you have any questions, please 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 Project

TOD:MCB

Attachment

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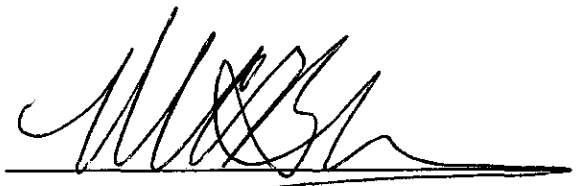
# Tank Farms Operations Division Quarterly Report

## First Quarter Fiscal Year 2007
## October through December 2006

**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
# First Quarter Fiscal Year 2007
# October through December 2006



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# 1. EXECUTIVE SUMMARY

The U.S. Department of Energy (DOE), Office of River Protection (ORP), Tank Farm Operations Division (TOD) Facility Representatives (FR) and Assistant Manager for Tank Farms Project (AMTF) Technical Staff completed scheduled and reactive reviews of the Tank Farm Contractor (TFC) and Analytical Services Production Contractor (ASPC) activities and operations at TFC-managed facilities during the months of October through December 2006. The reviews conducted during the quarter were focused on evaluating contractor activities, operations and continuous improvement efforts in the following areas: Operating Specification Document (OSD) Compliance, Training and Qualification (T&Q), Seasonal Preparations (i.e. Winterization), and Invoked Categorical Exclusions to the Unreviewed Safety Question (USQ) Process. Below is a summary of the results; detailed results are provided in Section 2 of this report.

## A. Operating Specification Document Compliance

The FRs determined that the limits and requirements from the OSD were contained in procedures and drawings; contractor personnel were actively engaged with implementation of the requirements. Some issues were identified during the quarter, but were not considered indicative of an overall program weakness. The most significant issue identified was related to corrective actions from a previous problem found not implemented for the AW Farm annulus ventilation system.

## B. Training and Qualification

The Training and Qualification elements observed and evaluated during this quarter showed that the contractors have implemented an adequate program to ensure that workers have the appropriate skills to perform their duties safely and effectively, and that management supports these activities. For the TFC, increased emphasis is needed to ensure that training covers all applicable procedures or processes, and to ensure that training materials effectively depict the systems described.

## C. Seasonal Preparations

The FRs determined that the contractor's program for seasonal preparations was adequate. However, additional improvements in the planning, conduct and follow up preparations for winter are warranted to reduce the potential for facility damage due to freezing conditions. Extent of condition of Lessons Learned should be considered in future planning, and corrective actions should be timely when addressing deficiencies identified in the field.

### D. Surveillance of Invoked Categorical Exclusions to the USQ Process

ORP Technical Staff (a Nuclear Safety Systems Specialist [NSS]) identified 3 Findings and 4 Observations during this review. Twenty-one (21) of 184 USQ screenings from the period were randomly selected and reviewed (approximately 11 percent) for appropriate use of categorical exclusion criteria. The Findings identified improper use of the categorical exclusions. The contractor has developed corrective actions for the Findings and Observations identified during the review. ORP will conduct further evaluations of the contractor's use of categorical exclusions during the second quarter of Fiscal Year (FY) 2007 to determine the effectiveness and adequacy of corrective actions. Details on the Findings and Observations are provided in Section 2 of this report.

## 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 first quarter of FY 2007, covering the months of October through December 2006. The evaluations conducted during the quarter were focused on evaluating contractor activities and continuous improvement in the following areas:

- Operations Specification Document Compliance;
- Training and Qualification; and
- Seasonal Preparations (i.e. Winterization).

ORP AMTF technical staff also performed one Surveillance during the quarter:

- Surveillance of Invoked Categorical Exclusions to the USQ Process.

**Results:** The FRs identified 2 Strengths, no Findings, and 9 Issues during the quarter. ORP AMTF technical staff identified 3 Findings and 4 Observations. 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 November 6 and December 4, 2006. Results of the technical staff review were discussed with the contractor separately.

Based on review of the FR Issues, Operational Awareness (OA) entries, and occurrence reports submitted during the quarter, the FRs identified an adverse trend associated with forklift events: 4 different forklift events occurred in the past 12 months. Discussions with the contractor led the contractor to declare a Recurring Event occurrence report for the forklift events (EM-RP-CHG-TANKFARM-2006-0037).

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. Operating Specification Document Compliance

Operating specifications are limits and controls established to protect Tank Farm equipment from damage, ensure product quality, increase efficiency and prevent mission interruption. These specifications are compiled and maintained in OSDs. During the quarter, the DOE-ORP FR evaluated contractor implementation of OSD requirements.

The evaluation consisted of reviewing documents, observation of work activities and interviewing contractor Management and Engineering staff. OSD requirements were selected for Single-Shell Tank (SST) and Double-Shell Tank (DST) operations; and reviewed to determine flow-down into procedures, compliance with limits, compliance with surveillances, reporting of out-of-specification limits, and/or personnel understanding of implementation. Requirements from the following OSDs were reviewed:

- OSD-T-151-00007, *Operating Specifications for Double-Shell Storage Tanks;*
- OSD-T-151-00010, *Operating Specifications for Pressure Testing and Leak Detection for Tank Farm Transfer System and for Control and Use of Temporary Transfer Lines; and*
- OSD-T-151-00013, *Operating Specifications for Single-Shell Waste Storage Tanks.*

Interviews with contractor Management were performed and revealed that an effort was ongoing to transition away from OSDs. Some of the OSDs are considered no longer needed and were in the process of being phased-out and cancelled. This was due to a determination that the requirements have either an out-of-date basis or should reside in another engineering document. For example, a tank structural specification for dome surveys could be deleted from the OSD and replaced with RPP-26516, *SST Dome Load Survey Program*. A process was established by the contractor to review, change or cancel the OSD specifications; and if applicable, move the specification to the appropriate engineering document.

**OSD-T-151-00013, *Operating Specifications for Single-Shell Waste Storage Tanks***

The specifications for SST structural limitations (dome deflection and vapor space pressure) and confinement requirements (filter differential pressure and temperature) were evaluated. The specifications reviewed were implemented by a combination of drawings, engineering documents and operations procedures.

During review of the SST dome deflection survey documents the FR identified and evaluated two issues - several dome deflection surveys were not completed at the OSD required frequency and several instances were identified where only one benchmark was used for the dome survey in lieu of using two as required by the OSD. Engineering personnel were interviewed, were aware of the issues and were actively engaged at resolving these issues. For the dome survey frequency extensions, engineering had evaluated, documented and approved frequency extensions prior to exceeding the survey dates. For the dome benchmark issue, action assignments were in place to evaluate the conditions and to develop work packages as required.

Review of the SST vapor space pressure, filter differential pressure and filter temperatures showed that the requirements from the OSD were contained in the operating procedures and applicable drawings. The FR identified 2 Issues where the vapor space pressure limits were not accurately reflected in the drawings and procedures reviewed. The first Issue identified was related to an Alarm Response Procedure (ARP) that did not have the vapor space pressure alarm set-point limit shown correctly. This type of procedure error was considered minor because the set-point limits in the ARP are additional information that is not required when completing alarm response actions steps. The contractor management agreed to correct the ARP.

The second issue identified was related to vapor space pressure limits shown on drawings. The FR reviewed a scanned drawing obtained from the Records Management Information System (RMIS) for an exhauster installed to support tank waste transfers and found that the decimal points were missing from the values specified for instrument alarm and interlock set-points. As a result, the set-points were shown incorrectly by a factor of 10 (e.g. High Tank Vacuum shown as -1 5 in lieu of -1.5). Further review by contractor engineering determined that the decimal points were removed during scanning due to an incorrect setting on the scanner equipment. A de-speckling feature was activated to improve scanning quality and was set to a point where all dots were removed. Corrective actions included an extent of condition review that identified a set of affected drawings that were subsequently rescanned; and changes to the scanning procedures.

**OSD-T-151-00007, *Operating Specifications for Double-Shell Tanks***

The specifications for DST vapor space pressure were evaluated. The FR reviewed implementation of corrective actions for an event that occurred the previous winter where the OSD limits on annulus vacuum were exceeded in AN Farm. The event was the result of excessive buildup of frost/ice on some of the annulus ventilation inlet stations. To prevent this condition from occurring again, operator rounds were changed to look for frost/ice buildup and remove it; and the OSD minimum design limit for annulus pressure was later reanalyzed to -20" water gage for AN Farm.

The FR identified one Issue that the corrective actions for operator rounds were not changed for AW Farm – the operator rounds sheets in AW Farm did not contain the requirement to inspect for frost/ice buildup and remove. The annulus exhaust fans in AW Farm are also capable of developing sufficient vacuum to exceed the OSD minimum design limit of -6" water gage. As with AN Farm, there are no interlocks to trip the annulus exhaust fan on high vacuum, no vacuum breakers on annulus ventilation and the AW annulus ventilation inlet stations are essentially identical to those in AN Farm. The contractor management agreed to institute operator rounds in AW Farm, and any other farm where appropriate, to address this issue.

**OSD-T-151-00010, *Operating Specifications for Pressure Testing and Leak Detection for Tank Farm Transfer System and for Control and Use of Temporary Transfer Lines***

During the quarter, an assessment was conducted for Tank 241-C-108 Retrieval Operations Leak Detection System, Master Pump Shut Down System (MPSS) and Electrical System. The objectives of the assessment were to assure that the 241-C-108 retrieval leak detection system, MPSS and the electrical system have been designed, installed, tested and maintained to ensure its operability in accordance with appropriate system functional requirements and design criteria.

All criteria for the assessment objectives were met with some opportunities for improvement noted. The assessment team identified 3 Observations that included: omission of the C-108 safety significant leak detection system and the MPSS components from the Safety Equipment List; the leak detector relay has a design feature reset function that could allow reset of the MPSS pump motor contacts while a leak is detected; and the portable valve pit (POR104) has openings in the cover plates for valve handles where rainwater has intermittently entered and tripped the leak detection system.

The assessment team concluded that contractor personnel were knowledgeable of the safety significant leak detection system and communicated well. The System Engineer has been working with the Project Group and was knowledgeable of the system. Conduct of Operations was performed well during the leak detector function test including the halting of the test due to water intrusion in the portable valve box. The Integrated Safety Management System (ISMS) process was adequate as the lessons learned from a previous transfer (C-103) were incorporated into system changes.

In conclusion, the limits and requirements from the OSD's were contained in procedures and drawings; and contractor personnel were actively engaged with implementation of the requirements. Some issues were identified during the quarter, but were not considered indicative of an overall program weakness. The most significant issue identified was related to corrective actions from a previous problem found not implemented for the AW Farm annulus ventilation system.

## B. Training and Qualification

A review of T&Q of personnel was conducted during this quarter by the ORP FRs. The review consisted of observing pre-job briefings, work activities, post-job reviews, walkdowns of facilities, program and record reviews and performance of training to determine how effectively the T&Q program is implemented at the Hanford Tank Farms and the 222-S Laboratory facilities.

The activities observed during the quarter included:

- completion of computer-based training in Lock and Tag procedures;
- a review of workers T&Q requirements for 1-F Hot Cell work;
- a review of the impact of expired training at the 222-S Laboratory;
- a review of forklift training as part of an occurrence investigation;
- a review of Waste Feed Operations (WFO) routines training;
- review of qualification documentation of operators;
- review of AY-102 Leak Detection training;
- observation of operator training for C-108 retrieval; and
- review of the T&Q program for the 222-S Laboratory.

The review found that T&Q of personnel at the Hanford Tank Farms and the 222-S Laboratory was adequately implemented in a systematic approach, where training needs were analyzed, appropriate materials developed, instruction provided, and periodically reviewed. The FRs reviewed the following T&Q materials for operators: Lock and Tag Procedures and C-108 operator training.

FRs found two discrepancies in T&Q implementation. The first discrepancy was noted where required proficiencies were not covered by training. In that case the FRs noted that the WFO Routines Performance Demonstrations and WFO Routines On-the-Job-Training Cards did not cover two ARPs for AP Farm. Specifically, ARP-T-271-HVAC *Respond to Panel HVAC Alarms at 271-AP*, and ARP-T-271-00109 *Respond to Alarms for 241-AP-101 Supernate Pump*, were not addressed in these documents. Another discrepancy was noted in training materials that did not completely reflect the actual operations of equipment. The training materials for the AY-102 Leak Detector and Monitoring and Control System (MCS) used a screen capture of the MCS display. This display did not show or describe the actual alarm annunciation of an unacknowledged alarm. Both of these discrepancies should have been identified and corrected in a regular review of the training materials by the TFC. The contractor should strengthen processes to ensure training materials are complete and effectively depict the systems described.

There was one instance of an ASPC worker's failure to maintain training current where it affected operations. In this case, the requalification training expired for a 222-S Chemical

Technologist, which resulted in exceeding holding times for a C-103 tank sample analysis. This appeared to be an isolated incident; however, it is important for the ASPC to ensure that individual workers maintain their training in an up-to-date manner that does not impact operations. While the Access Control Entry System (ACES) can determine if a worker has current training, it doesn't actively tell them if training is required until it is too late and the training is past due.

A good example of a review of training accomplished by personnel was noted by the FR at the 222-S Lab, where TFC reviews of required training were done at the job level, during the Joint Review Group (JRG) meeting for the initial survey of the 1-F Hot Cell. For this meeting, the planner identified all the training required to perform the work and verified that all craft personnel were current on their training. Furthermore, training that was due soon was also identified so that it could be accomplished and not impact the job.

ASPC management also discussed with the FR the Lab's plans to make changes to the T&Q Program. These changes include a three tiered approach where the employee, training department, and the employee's manager are responsible for retaining employees' qualification. Additionally, the ASPC Chief Operating Officer stated that ASPC wanted to become more independent of the Analytical Technical Services (ATS) training program. This would include changing from a recertification program to a proficiency test every two years. The proficiency test will evaluate the chemical technologist on different procedures they perform. This proficiency test would look at the conduct of performing a laboratory procedure (performance).

In conclusion, the T&Q elements observed and evaluated during this quarter showed that the contractors have implemented a good program to ensure that workers have the appropriate skills to perform their duties safely and effectively, and that management supports these activities. For the TFC, increased emphasis is needed to ensure that training covers all applicable procedures or processes, and to ensure that training materials effectively depict the systems described.

### C. Seasonal Preparations

During the quarter, FRs toured facilities and monitored equipment status, evaluating effects of freezing conditions. FRs reviewed the winterization plan, winterization rounds, related tailgate communications, seasonal preparation briefings and Lessons Learned related to winterization. During the October through December 2006 time period, 43 of the 92 days had temperatures below freezing. Temperatures were as low as 21 degrees F in October, 11 degrees F in November and 8 degrees F in December.

TFC-BSM-FPM_PR-C-11, Rev B, *Winterization Plan for 200 Area Tank Farm Facilities,* states "The Tank Farm Contractor is responsible for protecting facilities from inclement weather during the winter periods to prevent the inadvertent damage that can be caused by freezing conditions. This is performed via a cyclical approach towards assessing vulnerabilities, performing preventive maintenance on protective systems, performing routine surveillances during months susceptible to freezing conditions, and then securing active winter freezing protection systems when warmer weather arrives."

While no significant facility damage occurred, lapses in seasonal preparation resulted in operational delays, required resource reallocation, and had the potential to result in facility and equipment damage. During the quarter FRs noted delays in winterization preparations, ineffective response to deficiencies identified during winterization preparations this year and to problems identified last winter. These were documented as issues in the TOD Weekly Report (and are summarized below).

**Untimely Winterization Planning for Building 616** (Blanchard 10/30/06)
On October 30, 2006, the FR observed engineering and craft performing winterization preparations for Building 616. Some work observed was required to be performed in September.

**Winterization deficiencies were identified during a weekly winterization Preventative Maintenance (PM); previous performances of the PM had been ineffective at correcting the deficiencies.** (Sorensen, 10/30/06)
The FR observed a weekly check of heaters and heat trace in AW Farm conducted by two electricians. This occurred on October 30, 2006 just before freezing weather arrived that would necessitate cold weather preparations to be in place and working properly. Numerous deficiencies were identified by the electricians during this PM, enough to indicate that previous conduct of this PM had potentially been ineffective at correcting these deficiencies before freezing weather set in. The FR reviewed records from previous performances of this PM during October and noted that this PM was performed twice prior to this occasion and these problems had not been corrected.

**Insufficient corrective action for exceeding the OSD limit on annulus vacuum in AN Farm last winter.** (Sorensen, 11/13/06)
Last winter the OSD limits on annulus vacuum were exceeded in AN Farm. This had resulted from some of the annulus ventilation inlet stations having an excessive buildup of frost/ice to the point that annulus pressure reached a low of -7.6" w.g. in one tank, well below the OSD minimum design limit of -6" w.g. One contributing reason for this occurring is because there are no interlocks to trip the exhaust fan on high vacuum (low pressure), and there are no vacuum breakers. The only defense for this condition occurring again was to institute shiftly operator rounds to look for frost/ice buildup and remove it. This was done for AN Farm, even though the OSD minimum design limit for annulus pressure was later reanalyzed to -

20" w.g. The annulus exhaust fans in AW Farm are also capable of developing sufficient vacuum to exceed their OSD minimum design limit of -6" w.g. As with AN Farm, there are no interlocks to trip the exhaust fan on high vacuum, and no vacuum breakers on annulus ventilation. Currently, the only defense for frost/ice buildup on inlet screens creating a high vacuum condition is to prevent it from occurring. However, no operator rounds to specifically look for ice/frost buildup on the inlet screens was instituted in AW Farm. The TFC should have provided more comprehensive corrective action to preclude the recurrence of the AN Farm event of last winter by instituting these same operator rounds in AW Farm, and anywhere else where applicable, but this was not done. TFC management agreed to institute operator rounds in AW Farm, and any other farm where appropriate, to address this issue.

In addition to the three issues documented in the TOD Weekly Report, the TOD FRs noted:

- The poly 55 gallon drum used to collect the ER-311 exhauster condensate was being stored in an unheated tent.

- The section of water hose inside the C-204 retrieval Articulating Mass System for the high pressure spray was not heat traced and froze.

- The Integrated Disposal Facility weekly round sheet includes checking building temperatures, but it does not specifically have a check that heat trace is operating properly.

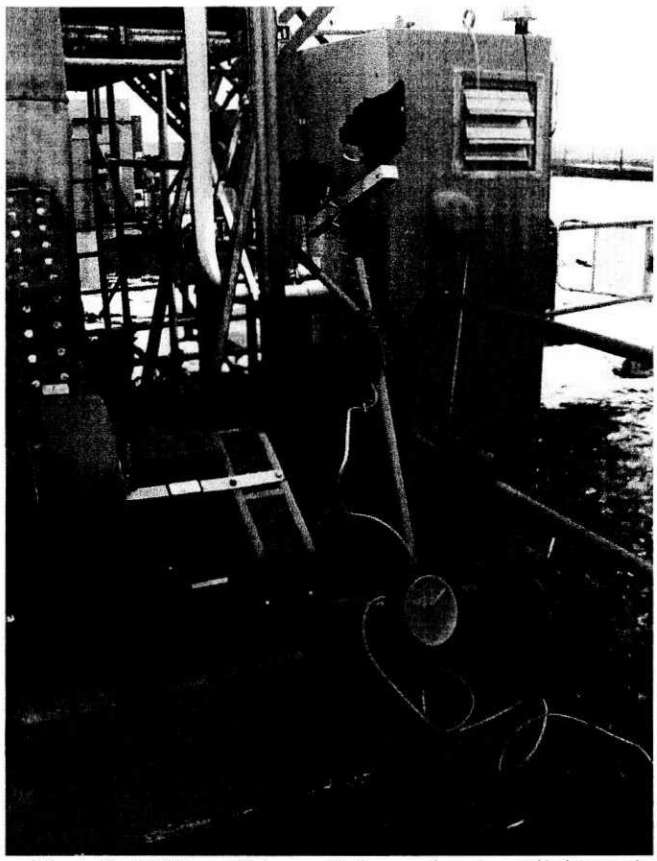

Photo 1: AN Farm Primary Exhaust showing a light used to heat an uninsulated record sampler return after lines were blocked due to condensate freezing.

- Record sampler line freezing occurred in AW and AN Farms. In AN Farm, operations opened the drain valve on the record sampler return line and got the sampler to run. In AW Farm the return line does not have a drain and the return line was removed.

Several issues were identified by the contractor and documented in the Problem Evaluation Request (PER) System:

- PER 2006-2010 – During preparations to make hot water to support AY-102 Slurry Distributor Removal, operations discovered a water leak and cold weather damage to the hot water truck fill station near TK-302-C (near 242-S Evaporator). Leak was repaired on December 3, 2006, however, cold weather damage may still need to be repaired before fill station can be used.

- PER 2006-2017 – The portable safety shower that was used for the 102-SY caustic addition was found frozen. Two 250 gallon skid mounted tanks and associated piping

were affected. The safety shower is in an enclosed tent with a portable ceiling mounted heater powered from a portable diesel generator.

- PER 2006-1928 - During the end point assessment for PER 2005-4184, Potential for Excavated Transfer Lines Near the 242-A Evaporator to Freeze, it was identified that the Winterization Plan, TFC-BSM-FPM-PC-C-11, specifically excludes 222-S Facilities and is silent on the additional ATS facilities for Waste Management and Sampling. ATS has taken action to have the plan revised to include their facilities.

- PER 2006-1773 - WFO mask station, two years ago people were having safety concerns over Self Contained Breathing Apparatus's freezing up and mask fogging problems. Part of the fix was putting in the Job Hazards Analysis (JHA) the requirement for everyone to wear a mask with a nose cup below 32 degrees F. We no longer use a JHA so there is nothing stating that use of a mask with a nose cup is mandatory at 32 degree F and below for this winter.

Overall, improvements in the planning, conduct and follow up preparations for winter would reduce the potential for facility damage. Extent of condition of Lessons Learned should be considered in future planning and corrective actions should be timely when addressing deficiencies identified in the field.

### D. Surveillance of Invoked Categorical Exclusions to the Unreviewed Safety Question Process

**Purpose and Scope:** DOE-ORP technical staff performed a surveillance (S-06-AMTF-TANKFARM-001) of invoked categorical exclusions to the USQ Process from October 23 through November 7, 2006. The categorical exclusions are incorporated within TFC-ENG-SB-C-03, REV D-1, *Unreviewed Safety Question Process* with an Issue and effective date of June 5, 2006. As required by 10 Code of Federal Regulations Part 830.203, *Unreviewed Safety Question Process*, Sub-Section (b) the TFC USQ procedure was approved by DOE-ORP. The latest major USQ procedure revision (i.e., Rev D) was approved by ORP on April 6, 2006. A minor revision for editorial changes was issued by the TFC subsequently (i.e., Revision D-1).

The three approved for use categorical exclusions are as follows:

- GCX-1 - *Categorical Exclusion to Allow Procedures to be Revised to Incorporate the U.S. Department of Energy, Office of River Protection (ORP) – Approved Safety Basis Changes*;

- GCX-2 – *Categorical Exclusion for Inconsequential Changes to Existing Documents*; and

- GCX-3 – *Categorical Exclusion for Work Instruction, Work Permits, or Other Documents used for Execution of Work Packages.*

**Results/Conclusion:** The ORP Tank Farm Project (TFP) NSS identified 3 Findings and 4 Observations. The reviewer performed a data base query of issued, for implementation, TFC categorical exclusions from the effective date of the USQ procedure (Revision D-1) to October 23, 2006. The query identified 184 times a categorical exclusion was invoked during the stated period. Based on the population of 184, a random sample size of 21 (rounded to 21) was chosen for further review by the TFP NSS Specialist. A random selection process was used for the 21 categorical exclusions chosen for detail review.

The 3 Findings and 4 Observations identified by the assessment team were:

**Findings:**

**S-06-AMTF-TANKFARM-001-F01:** Per TFC-ENG-SB-C-03, *Unreviewed Safety Question Process,* Rev D-1, Fig. 3, *Categorical Exclusion for Inconsequential Changes (GCX-2)* only allows inconsequential changes to existing documents, contrary to this TF-06-0808-S, *GCX-2 for Package CLO-WO-04-000068 – 241-S-102 Convert Drywell 40-02-10 to Leak Injection Well* invoked GCX-2 to incorporate work execution or permits revisions instead of invoking GCX-3, *Categorical Exclusion for Work Instruction, Work Permits, or Other Documents used for Execution of Work Packages.* (Moreno, 11/7/06)

**S-06-AMTF-TANKFARM-001-F02:** Per TFC-ENG-SB-C-03, *Unreviewed Safety Question Process,* Rev D-1, Fig. 3, *Categorical Exclusion for Inconsequential Changes (GCX-2)* allows inconsequential (add, change, delete or clarify notes or cautions) notes that do not direct operator action. Contrary to this TF-06-0717-S, *Supplemental Engineering Change Notice (ECN) 723960, Add Additional General Note to Clarify the SY-B Pit Drain Seal, Revision 0, (Draft)* invoked GCX-2 when adding a clarifying note to an ECN which directed operator action. (Moreno, 11/7/06)

**S-06-AMTF-TANKFARM-001-F03:** Per TFC-ENG-SB-C-03, *Unreviewed Safety Question Process,* Rev D-1, Fig. 4, *Categorical Exclusion for Work Instruction, Work Permits, or Other Documents used for Execution of Work Packages* GCX-3 only allows work execution and permitting (i.e., the non-authorizing facility change either permanent or temporary) portion of a work package to be excluded from the USQ process. Contrary to this, TF-06-0542-S, *Pen and Ink Change #7 to Work Package WS-04-00713* invoked GCX-3 to exclude a permanent facility change from the USQ process. (Moreno, 11/7/06)

**Observations:**

**S-06-AMTF-TANKFARM-001-O01:** Per TFC-ENG-SB-C-03, *Unreviewed Safety Question Process,* Rev D-1, Fig. 3, *Categorical Exclusion for Inconsequential Changes (GCX-2)* minimum qualification to invoke GCX-2 is either as a Qualified USQ Evaluator or designated staff. Contrary to this the GCX-2 Preparer for TF-06-1160-GCX-2, *TFC-ENG-DESIGN-C-31, Redline Drawing Process, Rev. A-3,* was not on the TFC designated list to apply GCX-2 (7G500-06-004 R2) or TFC Qualified USQ Evaluator list. (Moreno, 11/7/06)

**S-06-AMTF-TANKFARM-001-O02:** The retrieved associated ECN (ECN-723942, R0) to EV-06-0910-S, *ECN-723942, RO (Draft) Change MCS Alarm Set Points to Support 242-A Evaporator Technical Safety Requirement Changes,* did not match the subject of the USQ screen. ECN-723942, R0 retrieved from RMIS is titled *Remove Unused Symbols and Ensure Uniformity of Symbol Use* has an individual associated Unreviewed Safety Question Determination (TF-06-0678-D). The correct ECN associated with EV-06-0910-S, needs to be referenced. (Moreno, 11/7/06)

**S-06-AMTF-TANKFARM-001-O03:** EV-06-0885-S, *242-A Evaporator Emergency Response Procedure TF-ERP-EVAP-006, 242-A Evaporator Fire, Revision E-1 to F-0,* invoked GCX-1 and GCX-2 to implement a DOE approved safety basis amendment. It is unclear as to what portions of the referenced procedure revision are attributed to implementing a DOE approved safety basis (GCX-1) and changes attributed to the Author as inconsequential (i.e., GCX-2). (Moreno, 11/7/06)

**S-06-AMTF-TANKFARM-001-O04:** Per TFC-ENG-SB-C-03,*Unreviewed Safety Question Process,* Rev D-1, Section 1.0, *Purpose and Scope*, requires all TFC procedures (new or revised) unless explicitly excluded to fall under the USQ process contrary to this TFC procedure, TO-080-503 Rev. K-11, *Push Mode Sampling with Truck,* dated September 13, 2006 is not explicitly excluded but was revised without entering the USQ process. (Moreno, 11/7/06)

## 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-) |
|---|---|---|---|
| Rounds frequency not properly established. | Trenchard | 10/16/06 | 2006-1824 |
| Untimely Winterization Planning for Building 616. | Blanchard | 10/30/06 | 2006-1867 |
| Winterization deficiencies were identified during a weekly winterization PM; previous performances of the PM had been ineffective at correcting the deficiencies. | Sorensen | 10/30/06 | 2006-1870 |
| The contractors did not adequately evaluate causes, determine corrective actions to prevent recurrence, and develop lessons learned following a potential chemical exposure event at the 222-S Laboratory. | Blanchard | 10/31/06 | 2006-1868 |
| Safety Significant valve documention was incomplete for seat leakage testing. | Wade | 11/2/06 | 2006-1869 |
| Waste generation at the ER-311 exhauster seal pot was not in compliance with procedural requirements. | Williamson | 11/9/06 | 2006-1885 |
| Inadequate Closure Operations progress towards completion of required Annual Routine Radiological Surveys. | Trenchard | 11/8/06 | 2006-1886 |
| Insufficient corrective action for exceeding the OSD limit on annulus vacuum in AN Farm last winter. | Sorensen | 11/13/06 | 2006-1940 |
| Incorrect instrument interlock setpoints shown on Piping and Instrument Drawing (P&ID). | Wade | 12/5/06 | 2006-2030 |

## 4. CLOSURE

**Finding: Inadequate implementation of vehicle barrier controls.**
(Sorensen/Williamson 5/8/06)

The Finding dealt with vehicle barriers in SY Farm that were not configured in accordance with Documented Safety Analysis (DSA) requirements. Specifically, one type of vehicle barrier approved by Section 4.4.4 of the DSA was the 6" steel pipe welded perpendicularly to

a ¾" steel plate. RPP-7916 specified that the steel plate be braced against the concrete footings of the Prefabricated Pump Pit (PPP). In reality, the FRs noted that the steel plates were located several feet away from the PPP concrete footing. A Potential Inadequacy in the Safety Analysis was declared and WFO senior management agreed to address design, implementation, and operator training issues in their corrective actions. Corrective actions included the following: The TFC decided not to use this design of vehicle barrier any longer since it did not meet the design requirements, so it was eliminated from RPP-7916 and Chapter 4 of the DSA. These vehicle barriers were removed from the proximity of the PPP at SY-101 (where WFO transfers regularly take place) and were replaced with jersey barriers. Others had been removed previously from other areas controlled by Closure Operations and replaced with jersey barriers. WFO operations personnel, from Shift Managers to Nuclear Chemical Operators, were retrained to recognize approved vehicle barrier configurations. The SY-102 to SY-101 transfer procedure was revised, prior to the transfer in June 2006, to specify exactly what type of vehicle barriers are in place and where they are located. Engineering procedures TFC-ENG-DESIGN-P-17, *Design Verification*, and TFC-ENG-DESIGN-C-10, *Engineering Calculations*, were revised to ensure that assumptions and limits contained in design calculations are addressed in the associated design. The FR personally verified that these corrective actions had been implemented. **This Finding is considered closed. Findings from the Vehicle Barrier Assessment of May 2006 will be addressed separately. Surveillance Guide NSS 18.6 (Vehicle Barriers) was utilized to conduct this surveillance.**