**River Corridor
Closure Contract**

Integrated Environment, Safety, and Health Management System FY12 Declaration

November 2011

For Public Release

Washington Closure Hanford

Prepared for the U.S. Department of Energy, Richland Operations Office
Office of Assistant Manager for River Corridor

**WCH
Washington
Closure
Hanford**

STANDARD APPROVAL PAGE

Title: Integrated Environment, Safety, and Health Management System FY12 Declaration

Author Name: S. A. Thursby

Approval: C. A. Johnson, Project General Manager

Signature	Date

E. J. Millikin, Safety, Health, and Quality Director

Signature	Date

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EXECUTIVE SUMMARY

This annual Integrated Safety Management System (ISMS) declaration describes processes used by Washington Closure Hanford, LLC (WCH) to review, analyze, and evaluate safety performance and methods to ensure that current processes are in place to continuously improve the WCH ISMS program.

WCH systematically integrates safety into management and work practices at all levels so that goals, objectives, and the overall mission of the contract are accomplished while protecting the public, the worker, and the environment. WCH accomplishes this through effective integration of safety management into all parts of the integrated work control process, including work planning, and execution. This integration ensures that the safety and health of workers, the public, and the environment is not compromised. A priority is placed on managing and reducing risks in the workplace as well as risks to the public and the environment. WCH operations are based on procedures and practices that meet and/or exceed U.S. Department of Energy (DOE) Orders and U.S. Department of Labor Occupational Safety and Health Administration (OSHA) requirements. Every employee at the River Corridor Closure Project is responsible for implementing the ISMS and to ensure protection of the worker, the public, and the environment.

WCH has been on a journey of systematically and organizationally improving and integrating our safety and health programs into all facets of the work process. WCH has effectively incorporated safety and health as the way business is conducted. From the planning process within the Integrated Work Control Program process to ensuring the necessary flow down of requirements to both WCH and subcontractors through Exhibit G, safety and health is incorporated.

WCH personnel obtain training through a rigorous training program specializing in OSHA and DOE training programs along with the Safety Trained Supervisor program. This enhanced training allows safety professionals, supervision, and craft employees to demonstrate competence and knowledge of safety and health issues by effectively incorporating the results of observations and reviews into lessons learned and new work packages.

To assist with the continuous improvement of the execution of work, an independent review team comprised of URS, CH2MHill, and Bechtel personnel evaluated the effectiveness of corrective actions for fiscal year 2012 (FY12) identified in the Corrective Action Plan (CAP) following the fall event. Internal assessments were conducted by WCH prior to this effectiveness review using the Criteria Review and Approach Documents (CRADs) outlined in the 2011 URS Corporation Work Planning and Control Standard.

Overall results of the assessment confirmed that WCH has a functioning work control and planning process that established Integrated Work Control Program process (PAS-2-1.1). Improvements have been made in this process as WCH continues to mature as a company and ensure that safety is fully integrated into the work planning and control process. Specific improvements included:

- WCH refining a comprehensive "Program" that incorporates Technical Procedures, Preventive Maintenance, Work Packages (both craft and Type I)

- The development and use of a tool that assists in consistently applying a graded approach to the performance and evaluation of routine work (Routine Work Determination Form [RWDF])

- Integrated the job hazard analysis process into the Integrated Work Control Program procedure.

An area of emphasis in FY11 was fall protection and elevated work for both WCH and subcontractor personnel. This emphasis was in response to the assessments and evaluations conducted due to the fall event and the subsequent mid- and end-point assessment reviews conducted by WCH and DOE, Richland Operations Office (DOE-RL).

Results of the assessments identified continued opportunities in work control and disciplined operations. Document review and field observations by the DOE indicated that WCH could add additional rigor in the development, review, and close out of work packages. Work execution was also identified as needing additional attention to detail with minor incidents occurring. Issues identified inattention to detail, lack of focus, and consistent disciplined operations.

An evaluation of the existing WCH work control process by an independent team is scheduled for December 2011. This review will document observations and improvement actions tracked through the Corrective Action Management system (CAM) system and incorporated into the program to promote continuous improvement and enhance the existing disciplined operations at WCH.

Documentation of issues and conditions were demonstrated within the Local Safety Improvement Team (LSIT) log books and through the web based (CAM) system. Improvements included road and lighting improvements, monthly reviews of lagging LSIT log book items, and increased involvement by both management and LSIT members in site walk downs and observations (senior supervisor watch, focused observations, and additional Safety Trained Supervisor reviews). These methods provided the identification of issues, review of issue resolutions, and documentation of issue completion.

Feedback and improvements were communicated to the Executive Safety, Health and Quality Review Board (ESQRB). The ESQRB provided feedback to the functional managers on Environment, Safety, Health and Quality metrics; performance objectives, measure, and commitments status of improvements; and emerging issues related to the ISMS program. Performance analysis meetings with senior management were conducted to address operational problems and concerns and facilitated long-range improvement actions.

WCH's Quality Assurance program continues to meet the requirements of DOE O 414.1C, Quality Assurance. Since the 2010 Health Report there have been two areas that have improved from yellow to green: Quality Improvement and Procurement. In the last three years the WCH Quality Assurance program has been assessed by internal and external agencies thereby providing a high level of assurance that the Program adequately implements DOE O 414.1C and appropriately incorporates the requirements of NQA-1 2004 through supplements 1b-2007. While these assessments continue to identify opportunities for improvement in requirements flow down and program implementation of issues, they consistently validate that program elements are being effectively implemented.

As issues are identified through assessments, internal/external reviews, and incident reviews, information is documented and tracked through the CAM system. Corrective action status is reviewed on a weekly basis by senior management to ensure that actions are appropriately

addressed and are on schedule. Continuous improvement of our ISMS is demonstrated through the identification and completion of corrective actions identified from the WCH assessment program. Assessments topics were chosen as a result of trends from the previous year, annual assessment requirements, formal corrective action plans, and special emphasis areas in support of performance objectives, measurements, and commitments and the Safety and Health Improvement Plan initiatives. Assessments are reviewed and tracked throughout the year with improvement actions discussed at monthly Performance Indicator meetings with WCH senior management and DOE-RL representatives. Additional issues and opportunities for improvement are identified and addressed in real time through the LSIT log books maintained at each site location. The LSIT Chairperson conducted a review of the issues routinely with management to ensure timely closure of actions and the sharing of lessons learned with other LSITs. This method of issue identification and resolution has proven very effective and demonstrates the strong safety culture exhibited by WCH employees.

WCH maintains a safety culture where all employees from senior management to front line employees feel free and have the ability to raise concerns through numerous avenues. All aspects of a nuclear safety culture were evaluated using the structure of the Energy Facilities Contractor/DOE ISMS Safety Culture Focus Areas and Attributes. In addition, WCH and DOE-RL collaborated to evaluate effectiveness of the WCH safety culture.

WCH employees are both encouraged and favorably recognized when concerns regarding safety and work control are raised. WCH policy is zero tolerance for retaliation, intimidation, discrimination, and/or reprisal. As an integral part of WCH New Hire Orientation, all employees are provided the information on the expectation of raising concerns, how to do this, who concerns can be raised to, and that no employee will be retaliated against for doing so. Employees are advised that the act of raising issues concerning, safety and quality is not only their right but considered an expectation for all employees. Interviews with both WCH and DOE-RL Employee Concerns confirm that the level of concerns has dramatically decreased since the inception of the contract. Concerns still exist but are dealt with in a timely and satisfactorily manner for both the employee and the company

Further demonstration of the open and interactive safety culture as demonstrated by WCH employees was the successful achievement of the FY11 POMCs. All POMCs with established metrics were within the goals established for 2011. Performance within most of the areas was

exemplary. Results of these improvements and trends identified in FY11 assisted WCH in creating the POMCs for FY12. Throughout FY11, WCH was self critical to ensure our processes were postured to maintain safety and quality as production activities increased. WCH recognized that continuous improvement is needed to maintain this balance. WCH has improved many of the key processes associated with the safe performance of work and has maintained a focus on feedback and improvement.

Employee involvement and a positive safety culture continue to be demonstrated through ISMS and Voluntary Protection Program (VPP) activities. WCH successfully maintained and continuously improved the VPP star status earned in June 2009. WCH was awarded the DOE VPP Star of Excellence Award again for calendar year 2010. This award is given in recognition for excellence in maintaining safety and health rates significantly below the industry average, maintaining innovative and creative ways to engage all levels of the workforce, and mentoring sites both current and actively pursuing VPP. This award is the highest honor that DOE awards its contractors on an annual basis. WCH is in an elite group of contractors who have earned the star of excellence award and are considered one of the best in DOE. Additionally, WCH was given the honor of receiving the DOE VPP Champion's Award. This is the highest individual award provided by DOE VPP Headquarters recognize an employee for outstanding leadership, mentoring, innovation, and assistance to the DOE VPP Headquarters team on assessments and reviews. WCH maintains its presence on the Voluntary Protection Program Participants' Association National Board of Directors with the re-election of a WCH employee as the Representative from a DOE VPP site and maintains the designation as the official mentor for the Stoller Legacy Sites within the DOE complex.

The WCH annual ISMS effectiveness review evaluated WCH procedures, policies, and manuals and the mechanisms by which full implementation is executed. It was determined that the WCH ISMS is effectively implemented and integrates employee participation from WCH senior management to contract workers in the safety process and declares an effective and implemented ISMS. The current safety management programs implement and satisfy the DOE requirements for ISMS and adequately safely manage the work. Reference documents validating mechanisms and requirements are detailed and listed within the ISMSD and associated compliance matrix.

TABLE OF CONTENTS

APPENDICES

TABLES

ACRONYMS

ACGIH	American Conference of Governmental Industrial Hygienists
CAM	Corrective Action Management
CAS	Contractor Assurance System
CHPRC	CH2M Hill Plateau Remediation Contract
D4	deactivation, decontamination, decommissioning, and demolition
DART	days away/restricted time
DOE	U.S. Department of Energy
DPO	Differing Professional Opinion
EFCOG	Energy Facility Contactors Group
EMS	Environmental Management System
EPCP	Environmental Protection and Compliance Plan
ERDF	Environmental Restoration Disposal Facility
ESH&Q	Environment, Safety, Health and Quality
FR	Field Remediation
FY	fiscal year
IF	Issue Form
IHWI	Industrial Hygiene Work Instruction
ISMS	Integrated Safety Management System
ISMSD	Integrated Safety Management System Description
ISO	International Organization for Standardization
IWCP	Integrated Work Control Program
JHA	Job Hazard Analysis
LSIT	Local Safety Improvement Teams
MMA	month moving average
MSA	Mission Support Alliance
OPEX	Operational Experience
ORPS	Occurrence Reporting and Processing System
OSHA	Occupational Safety and Health Administration
POMC	performance objectives, measure, and commitments
PPE	personal protective equipment
PSR	project safety representative
QA	Quality Assurance
QAP	Quality Assurance Plan
QAPD	Quality Assurance Program Description
RCC	River Corridor Closure
RCCC	River Corridor Closure Contract
RL	Richland Operations Office
RWP	radiological work permit
S&H	Safety and Health
SC	Significance Category
SH&Q	Safety, Health and Quality
SHIP	Safety and Health Improvement Plan
SME	Subject Matter Expert
STR	Subcontractor Technical Representative
STS	Safety Trained Supervisor
VPP	Voluntary Protection Program
VPPPA	Voluntary Protection Program Participants' Association

WBGT wet bulb globe thermometer
WCH   Washington Closure Hanford, LLC
WSHP   Worker Safety and Health Plan

1.0 BACKGROUND

Washington Closure Hanford, LLC (WCH), a limited liability company owned by URS Corporation; Bechtel National, Inc.; and CH2M Hill Constructors, Inc., was awarded the prime contract to manage the River Corridor Closure (RCC) Project in March 2005. The River Corridor consists of approximately 210 mi^2 of the Hanford Site and is adjacent to the Columbia River. It is divided into the following four major sub areas:

- 100 Area, comprised of shutdown plutonium production reactors and support facilities

- 300 Area, comprised of reactor fuel fabrication, research, and support facilities

- 400 Area, comprised of support facilities for the Fast Flux Test Facility and Infrastructure program

- 600 Area, mostly vacant land but contains two of three waste sites on the U.S. Environmental Protection Agency's open National Priorities List.

Successful cleanup of the River Corridor will allow the 210 mi^2 of the Hanford Site land to be available for other uses such as providing opportunities for public access to key recreational areas, protecting cultural resources, and shrinking the footprint for active Hanford cleanup operations to approximately 75 mi^2. Key challenges include the need to remove and process buried high-activity wastes; deactivation, decontamination, decommission, and demolish of excess facilities; and isolating the reactor buildings while its source term decays away (Interim Safe Storage).

2.0 ANNUAL ISMS EFFECTIVENESS REVIEW AND CHANGES MADE TO THE ISMS AND CONTRACTOR ORGANIZATION

Upon the review and confirmation of an effective system during the Integrated Safety Management System (ISMS) Phase II Verification by the U.S. Department of Energy (DOE), WCH put into place an annual process to review, evaluate, and update the WCH ISMS and the Integrated Safety Management System Description (ISMSD). The scope of the WCH annual ISMS review included all projects, facilities, and activities managed by WCH. The set of tailored criteria, modeled after the ISMS Phase II assessment, included performance objectives, measures, and commitments (POMCs) along with the WCH Safety and Health (S&H) Improvement Plan (SHIP) action items and the integrated assessment schedule; all used to evaluate the WCH system and effectively assess and evaluate throughout fiscal year 2011 (FY11).

The annual ISMS review was conducted throughout FY11 identifying areas for improvement, developing and incorporating corrective actions, and evaluating changes to systematically improve our ISMS processes. Subject Matter Experts (SMEs) provided updates, improvements, process changes, current

initiatives, and opportunities for improvement for each area under their jurisdiction. Each section was evaluated to determine if ISMS implementation was effective and functioning. In addition, WCH conducted a rigorous review of the POMCs and SHIP commitments and adjusted emphasis areas accordingly to ensure effective improvements were implemented and validated.

A management assessment was conducted in fall 2011 using the principles and functions of ISMS along with the tenets of VPP to determine improvements, gaps, and overall compliance and implementation of all the elements of this integrated process. This annual ISMS effectiveness review assessed the implementation of the ISMSD, the adequacy of the ISMS performance, and determined the effectiveness and continuous improvement of the WCH ISMS Program. This process utilized the tailored criteria to determine the continued effectiveness and implementation of the ISMS and VPP tenets. Updates for each criterion were collected from SMEs, management personnel, and employees who provided improvement actions, areas of success, and items of concern with action plans and mechanisms for addressing those self-identified issues for their focus area. The information provided, along with WCH self-assessments, corrective actions, and management input, determined the overall ISMS performance, trends, assessment results, and programmatic improvements. This management assessment confirmed that the WCH safety culture and requirements are identified and in place.

Updates to the ISMS criteria are reflected within WCH-4, *Integrated Safety and Management System Description (ISMSD)*, and accurately describe the current WCH ISMS. These updates were not substantial as to change the intent and overall programmatic elements of the WCH ISMS. However, WCH provides an update to both DOE and contractor elements to ensure that all personnel have the latest version of the document.

Based upon the reviews conducted against the core functions and guiding principles of ISMS and tenets of VPP throughout the fiscal year, and in conjunction with a review of self-assessments, independent assessments, surveillances, and a systematic review of the Corrective Action Management (CAM) System, it is the judgment of WCH that the ISMS is effectively implemented and has systematically integrated safety into all levels of work.

3.0   ISMS DECLARATION CRITERIA

3.1   OPERATIONAL AWARENESS, OVERSIGHT, AND CONTRACTOR ASSURANCE SYSTEM

WCH Line Management is involved with the direct and continuous management, leadership, and oversight of WCH and subcontractor work functions. Line managers understand and accept their safety responsibilities inherent in mission accomplishment and do not depend on supporting organizations to build safety into line management work activities. Line managers spend a great deal of time in the field coaching, mentoring, and reinforcing standards and positive behaviors. Line managers throughout the organization set an example for safety through their direct involvement in continuous improvement. WCH Line Management has fostered improvements in the subcontractor technical representative (STR) program and IWCP and has increased participation in the STS program. Line Management's sponsorship of these as well as other improvements has resulted in improvements in both safety and production, which can be seen in WCH's key performance indicators.

WCH implements a comprehensive and integrated Contractor Assurance System (CAS) and monitors the CAS through implementation of a monthly Function Area (FA) Health Report. The health report allows specific performance issues to be viewed and evaluated within the context of overall FA health. Data from the CAS elements of event reporting, issues management, performance metrics, assessment, and feedback are collected from each FA and rated according to pre-determined criteria. The ratings for each CAS element are then input to a formula that renders an objective output of overall health. Each successive monthly report builds on previous data, using historical information to influence health determinations. CAS also includes WCH communication of operating experience through implementation of a lessons learned program which encourages sharing of information across projects and functional areas. The process is linked to the DOE complex through the DOE Lessons Learned Database.

3.2   EFFECTIVE INTEGRATION OF ENVIRONMENTAL MANAGEMENT SYSTEM AND QUALITY ASSURANCE INTO ISMS

3.2.1   Quality Assurance Program

Consistent with the guidance provided by the Principal Deputy Assistant Secretary for Environmental Management on July 28, 2011, subject: 'Fiscal Year 2011 Annual Integrated Safety Management System and Quality Assurance Effectiveness Review Declaration," an evaluation of the WCH QA Program was performed and the full results are included within.

WCH's QA program continues to meet the requirements of DOE O 414.1C, *Quality Assurance*, with most areas being coded as green ("good"). There is one area (Work Processes) that warrant improvement actions and were coded as yellow ("investigate"). Since the 2010 Health Report there have been two areas that have improved from yellow to green (Quality Improvement and Procurement). In the last 3 years the WCH QA program has been assessed by internal and external agencies providing a high level of assurance that the Program adequately implements DOE O 414.1C and appropriately incorporates the requirements of NQA-1 2004 through supplements 1b-2007 (some noted deficiencies, but not programmatic). While these assessments continue to identify opportunities for improvement in flowdown and issues with implementation, they consistently validate that the program elements are being effectively implemented.

Work Processes was identified as "investigate" based on isolated failures to appropriately implement expectations of the Integrated Work Control Program or the Work Packages developed. Implementation is deemed at risk due to continued challenges associated with the adequacy of implementation of the IWCP. Although significant efforts have been made to improve the implementation of the work control program and updated to reflect the new URS work control standards, implementation continues to fall short of expectations. As such, until these issues are effectively resolved, this area will remain yellow.

Quality Improvement has improved from yellow to green. Program health is considered acceptable from results of an independent assessment of the WCH Quality Improvement Program, a Management Assessment of the Contractor Assurance System, monthly metrics indicating healthy management of issues, and QA verification of process alignment with DOE expectations, and continued surveillances of process implementation. In addition, periodic

assessments by DOE-RL that have revealed marked improvements in the management and implementation of the Corrective Action Management process.

Procurement has improved from yellow to green. Processes are established and implemented to ensure that approved suppliers continue to provide acceptable items and services. This resulted from a clarification improvement regarding supplier performance expectations and process and implementation improvements in supplier assurance. Additionally, implementation is deemed acceptable based on results from a WCH Independent Assessment and performance review, and DOE-RL assessments. A summary of this information is provided in Appendix A, EM Corporate QA Performance Metrics.

Overall, Assessments are still designated as green even though the overall adequacy of the implementation of the Management Assessment program is under review. The overall program structure, strategy, and processes appear healthy, however the degree to which individual assessments accurately reflect the implementation and effectiveness of the processes assessed is an area that warrants improvement. A WCH Independent Assessment identified an issue regarding the format of Management Assessments; while planning, performance and reporting were acceptable. While the program posture is healthy, concerns with the depth and critical assessment of the assessors continue to be raised and improvements are warranted.

3.3   ACTIVITY LEVEL WORK PLANNING AND CONTROL, JOB HAZARD IDENTIFICAITON AND ANALYSIS AND DEVELOPMENT OF HAZARD CONTROLS

A review was conducted with an independent URS, CH2MHill, and Bechtel review team to access WCH against the 2011 URS Corporation Work Planning and Control Standard. This review included CRADs based upon the aforementioned standard, Record Reviews, Interviews, and field observations. Operations, Engineering, Safety, Management personnel, and workforce personnel were part of the interview process. WCH procedures, work packages, Job Hazard Analyses, Fall Hazard Prevention Analyses, assessment schedules, training records, and Pre-Job and Pre-Ev documentation were reviewed.

Overall results of the assessment confirmed that WCH has a functioning work control and planning processes using the established IWCP process, (PAS-2-1.1). Improvements have been made in this process as WCH continues to improve and ensure that safety is fully integrated into the work planning and control process. These updates incorporated the observations identified during the DOE End Point Assessment, from DNFSB comments and concerns, and items internally identified by WCH. Improvements in the process included:

- Incorporation of the Preventative Maintenance, (PAS-2-1.2) and the Job Hazard Analysis Procedure (PAS-1-1.1) into IWCP.

- Generation of an IWCP Exempt List that identified work type and job tasks that have been evaluated by management are considered low risk and do not require formal authorization, release or a JHA.

- Definition of routine work was revised with a set of criteria established to determine routine work with the introduction of the Routine Work Determination Form. This form now serves as the authorization and release for all routine work activities.

- The JHA 'What If Analysis" section was removed from the JHA section of the procedure.

- Requirements for a JHA walkdown were clarified with requirements for this incorporated into IWCP.

- Work package development was incorporated into the Work Process Form with the responsibility for a qualified planner to suggest to the Responsible Management the type of work package or procedure required to complete a task along with the recommended planning team members. Qualified planners are trained in this process.

- Pre-Ev brief are now required for all Type 1 Work Packages, PM Packages, Craft Work packages, and Continuous Use Tech procedures.

- Feedback requirements form is now required to be filled out before closing any Type 1 work package.

- Changes to Tech procedures generated by a computer are now allowed.

3.3.1   Work Planning and Control

Fall protection and elevated work was an emphasis area in FY11 for both WCH and subcontractor personnel. This emphasis was in response to the assessments and evaluations conducted due to the fall event and the subsequent mid- and end-point assessment reviews conducted by WCH and DOE-RL. A follow-up assessment was also conducted by the WCH parents companies in October 2011.

Results of the assessments provided WCH with continued opportunities in work control and disciplined operations as indicators and field observations by the DOE indicate that WCH could add additional rigor in the development, review, and close out of work packages. The execution of work was also identified as needing additional attention to detail with minor incidents occurring resulting from inattention to detail and lack of focus and consistent disciplined operations.

The fall protection program at WCH continues to make improvements. All personnel who participate in fall hazard potential activities were provided fall protection worker training from Mine Safety Appliance after the fall event in 2009. Recently, the retraining of these individuals occurred through HAMMER who updated their course to include a practical and hands on portion to align with the site wide fall protection procedure updates effective December 1, 2011. Training improvements after the fall event included all personnel who worked with fall protection to attend the Mine Safety Appliance 40 hour fall protection worker training. The previous training provided by HAMMER was a fall protection awareness class and did not provide a practical portion where PPE was donned and doffed. Additional training was provided for Competent and Qualified personnel. Competent and Qualified personnel were evaluated against the criteria established in OSHA and included field safety representatives, select supervision, and engineers who met the training, experience, and education/certification requirements. The requirements of fall prevention/fall protection for subcontractors are found in the safety portion of the contract for subcontractors (Exhibit G, section 4.2.12). The WCH requirements are flowed down as outlined in WCH SH-1-3.5.

Recent changes were made to SH-1-3.5 Fall Prevention/Fall Protection procedure that addressed the areas that were not fully compliant with OSHA requirements, roles and responsibilities. Change log summaries identified areas for improvements including the following:

- Defined the roles and responsibilities of competent and qualified persons

- Clarified training requirements for competent and qualified persons

- Clarified roles and responsibilities for various positions involving fall protection

- Created Fall Protection Spotter responsibilities and duties, exceeding OSHA requirements

- Developed an FHPA form (WCH-QSH-050) and process to identify and prevent/mitigate fall hazards

- Disallowed the use of the exception for 29 CFR 1926.500 (a)(1) allowing for the lack of fall protection for the initial inspection of work (first man up rule)

- Removed the allowance for safety nets

- Added the guardrail offset system for fall protection method for open holes in floors or roofs

- Added a description of acceptable hole covers for workers

- Clarified the requirement for excavation sloping of 1.5 to 1

- Added the definition for 100% fall protection, authorized user, body belts, fall hazards, maintenance and safety monitor

- Revised the definition of the Fall Hazard Analysis to be consistent with the finding form the mid point assessment.

- Added new section to address fall protection requirements for yellow iron

- Revised the procedure steps for using the FHPA along with adding the instructions to the procedure

- Added the terms and inconsistencies in the terms OSHA and WCH

- Added Provided additional documentation associated with qualification requirements for WCH identified roles (spotter, safety monitor)

- Added appendix A for Typical Anchorage Points

- Added appendix B requirements for using a crane as a fall protection anchor point.

The process for determining qualified and competent persons for fall prevention/fall protection is outlined in Procedure SH-1-2.11, Competent Person/Qualified Person. This procedure outlines the sections of 29 CFR 1926 that require a competent and/or qualified person identified prior to

performing a certain work task. The responsible manager is required to complete the "Qualified/Competent Person Qualification form", WCH-TR-031, where the WCH S&H Manager reviews the qualifications of the individual to include experience, training, and certifications.

Opportunities for improvement resulted from the annual fall prevention/fall protection self assessment. The annual fall protection assessment was done in conjunction with the latest revision of the fall protection/prevention procedure. The assessment conducted a review of the HGET training modules, WCH-289 (HIM), SH-1-3.6, Ladders, SH-1-3.16, Scaffolding, SH-1-3.19, Elevated Work Platforms to ensure compliance with 29 CFR 1926. Additionally, Assessment SHQ-2011-SA028 was conducted to review ladders and scaffolding with minor areas of improvement. The most current procedure revision to the fall protection/fall prevention included the following changes:

- Added the terms and inconsistencies in the terms OSHA and WCH

- Added Provided additional documentation associated with qualification requirements for WCH identified roles (spotter, safety monitor)

- Added appendix A for Typical Anchorage Points

- Added appendix B requirements for using a crane as a fall protection anchor point.

An additional assessment on scaffolding and ladders was also conducted in response to the fall event at SRS. WCH conducted a comprehensive review of all site locations with many positive actions cited with areas of opportunity for improvement identified. Many items were corrected at the time of the observation. The results of the assessment were provided to DOE-RL along with the other Hanford Site contractors for lessons learned.

3.3.2 Job Hazard Identification and Analysis

The Job Hazard Analysis (JHA) process in place is part of the Integrated Work Control Program (IWCP) procedure, PAS-2-1.1. When a qualified work planner prepares a work control document, he or she will develop a JHA based on the process identified in the IWCP, Section 6.2. This process was incorporated into the work control procedure in addition to preventative maintenance. Clarification was provided to the JHA walkdown expectations with a set of criteria established for routine work. Pre-Ev meetings are also required for Type 1 Work Packages, PM Packages, Craft Work Packages, and Continuous Use Tech Procedures.

The planner has the responsibility of developing the work control document with the input from the affected parties conducting the work. The JHA is reviewed by Safety, IH, Rad Con, craft representatives conducting the work, engineering (as needed), 1st line supervision, and project supervision (as needed depending upon the scope of the work). Project personnel use the existing Health and Safety Plans (HASPs) for each work area as well as the Hazard Identification Document (HIM), WCH-289, WCH SH-1-3.5, and the S&H procedure manual for applicable requirements.

Personnel involved with a job site walkdown include Project Safety Representative, Planner, Affected worker craft representative, supervisor (1st line). Depending on the scope of the work and hazards, IH, Rad Con, and engineering may attend the job site walkdown.

Work control document and specifically JHAs are broken into steps that identify known and potential hazards and are supported by a number of mitigation steps. Another analysis process includes the Radiological Work Permit (RWP). This analysis process identifies radiological hazards and applies As Low As Reasonably Achievable (ALARA) criteria for prevention of the spread of contamination and employee contamination. Additional analysis is performed via the Fall Hazard Prevention Analysis (FHPA) which is required when any worker could be potentially exposed to a fall hazard. The WCH program was used as the model for the Hanford site wide program which is still in the implementation phase.

The approval process for a work control document is through the planners, the affected craft discipline, the safety personnel (safety, IH, Rad), engineering if applicable, and the project manager for that work. The review of the work control documents and JHA are conducted at the Plan of the Day and in detail at the Pre-Ev meetings prior to conducting work. The affected workers, supervision, and safety personnel are present during this meeting to address concerns, provide clarification, and make adjustments, additions, and changes as necessary.

Site inspections are conducted on a daily basis by Safety, IH and RCTs. Additionally safety walk around inspections are conducted at various frequencies based on the type of walk around. The Quality Assurance Plan (QAP) that identifies the types and frequency of self assessments developed on an annual basis.

Industrial Hygiene Exposure Assessments is a process that includes the identification of hazardous agents, an evaluation of the relative risk associated with each agent, determination of required sampling, and the determination of necessary controls. Ultimately this information is used to ensure workers are adequately protected. Radiological conditions follow established routines for radiological survey frequencies. If there is a rad concern at a work location the RCT observing and conducting surveys will stop work activities, contact the rad supervisor. The issue is investigated and resolved with perhaps changes in postings, RWP revision or new RWP, and discussion with affected employees. The issues are noted in the RCT daily log, and the radiological form.

Trends have been analyzed on a yearly basis, two year rolling analysis, and since contract inception depending upon the indicator and the amount of data available. These trends have been rolled into the SHIP that outlining the fiscal S&H goals. The need for additional oversight of subcontractors concerning excavations was identified in 2011. These goals were incorporated into the S&H Employee Involvement goal. The hazard identification did not stop with the subcontractors. Direct hire personnel also conducted this review and included elevated work, fall protection, ladders and scaffolding. A trend in vehicle incidents is still an issue with additional emphasis planned in FY12. A successful evaluation of the Heat Stress conditions, equipment, and preparation enabled WCH to work through the summer of FY11 without any heat stress issues. Information on hydration, water, breaks, and acclimatization were provided to all employees.

Performance indicators are evaluated and monitored by senior staff on a monthly basis during the Performance Indicator meeting and during the Plan of the Day meetings. Trends and action plans are discussed and reviewed at these meetings with actions and a path forward documented in the meeting minutes. Results of improvement actions include Project Safety Initiatives, Safety Re-Focus Meetings, and focused reviews and oversight.

3.3.3 Hazard Controls

The IWCP implements the portion of Integrated Safety Management (ISM) for the planning and performance of work at the activity level. The IWCP is applicable to all work activities managed and performed by WCH and its subcontractors and is flowed down to subcontractors in accordance with subcontract terms and conditions as required by subcontract documents. For subcontracted work, the IWCP key roles may be filled by WCH or subcontractor personnel, as specified in subcontract documents. IWCP is not applicable to work performed by Other Hanford Contractors (OHC), such as MSA or PNNL, that utilize their own DOE approved work control programs. Work performed by OHCs for WCH should be approved and authorized by WCH Management.

Work packages identify the necessary controls for the work place hazards with the majority of the controls implemented through over arching Hazard Control Documents, such as HASP or HIM. Signs, placards, barricades, PPE, and boundaries provide additional information and protection for employees conducting work in and around the areas in the control of WCH.

Field work supervisors (FWSs) are instructed to implement the Observational Approach methodology in instances where the nature of the work is prone to unknowns and hazards are not readily apparent (e.g., burial ground remediation). During work activities, personnel are directed to stop work if:

- Additional work or work scope not identified in the procedure needs to be performed

- A procedure step cannot be performed as written (including sequence)

- Following the procedure will create an unsafe or noncompliant condition

- An unexpected hazard or condition is encountered or hazard controls are determined to be inadequate.

For a stop work, workers shall:

- Not attempt to remedy changed conditions or fix problems beyond the minimum required to place the component, system, or work area in a stable and safe condition and stop work.

- Immediately notify the FWS/Manager.

The FWSs or Manager shall document with management the stop work and make appropriate notifications. The STR is notified of all subcontract stop work actions. To restart work the following actions are conducted:

- The Manager notifies (as appropriate) SMEs, managers, and their director to help assess new hazards and/or changed conditions.

- The Manager and (as appropriate) SMEs, managers, and director determine measures necessary to safely restart work.

- The FWSs and/or Manager will initiate appropriate changes to procedures and/or work areas to resolve the issue(s). Subcontractors will coordinate all such changes through the STR.

An example of the administrative and engineering tool to help reduce the hazards found on the job site is the remote drum punch facility used at the FR sites. This system allows for the remote monitoring of potentially radioactive materials and eliminates the need for employees to access a potentially highly contaminated area. This system allows for the remote access of uncharacterized packages, such as drums or other containers for the purposes of sampling and characterization. This allows for monitoring of potentially radioactive or reactive materials and minimizes risks to workers.

Ergonomic evaluations and surveys are conducted as necessary by an on-site Certified Industrial Hygienist with a background in ergonomics. Workstation set up, work processes, and other methods are routinely reviewed for ergonomic improvements. Documented improvements have been made at both the ERDF facility and the Fermi Building administrative offices.

PPE and/or work controls do not introduce additional hazards into the work place. In areas where traditional controls are not practical, other means of hazard controls are introduced (i.e., the remote drum punch facility. This allows access of uncharacterized packages, such as drums or other containers for the purposes of sampling and characterization. This also enables monitoring of potentially radioactive or reactive materials and minimizes risks to workers. An additional evaluation of the level of Anti-Contamination needed to enter areas was also evaluated with a new product being used to eliminate the need for two sets of Anti-Cs and thus reduce the heat stress load. A significant improvement involved the way WCH and its subcontractor performed physiological monitoring using remote monitoring sensors (i.e. real time with remote read out and data logging implemented at 100-D).

Hazard controls identified during the hazard analysis are required to be incorporated into the work instructions, making them user friendly to the FWS. Our hazard analysis process is performed real time by a contingent made up of Planners, First line Supervisors, Project Safety Representatives, appropriate craft, and SMEs. The process does not rely on automated systems but rather takes advantage of the synergistic group dynamic of performing the analysis real time, collectively. This provides for the most thorough hazards analysis possible.

3.4   NUCLEAR SAFETY CULTURE AND ESTABLISHMENT OF SAFETY CONSCIOUS WORK ENVIRONMENT

All aspects of a nuclear safety culture were evaluated using the structure of the Energy Facilities Contractor/DOE ISMS Safety Culture Focus Areas and Attributes. In addition, WCH and DOE-RL developed a joint approach to develop a knowledge based response to determine the self-assessment approach, use of EFCOG assessment tools, and reporting format to determine effectiveness of the WCH Safety Culture.

WCH and DOE-RL jointly conducted a review of the aspects of the WCH safety culture using the Lines of Inquiry in Criterion 4 of the 2011 ISMS Declaration memo from DOE EM. WCH provided both HAMTC safety representatives, WCH Employees Concerns and Senior Contractor ES&H representatives. DOE-RL provided RL Employee Concerns and Senior DOE Representatives to review the LOIs for criterion 4. Provided is a summary of the information concluded through the joint assessment conducted by WCH and DOE-RL.

3.4.1 Safety Conscious Work Environment/Environment for Raising Concerns

3.4.1.1 Environment for Raising Concerns. WCH employees are both encouraged and favorably recognized when concerns regarding safety and work control are raised. As an integral part of WCH New Hire Orientation, all employees are provided the information on the expectation of raising concerns, how to do this, who concerns can be raised to, and that no employee will be retaliated against for doing so. Employees are advised that the act of raising issues concerning, safety and quality is not only their right but considered an expectation for all employees.

Plan of the Day (POD) and Pre-Evolution (Pre-Ev) meetings reinforce that employees are not only afforded the opportunity but expected to stop work when a condition or action is unsafe or not understood. Stop Work actions are reviewed with management and the employee raising the concern. HAMTC safety representatives are also notified when a stop work is called. Employees have the right to also contact their union steward if they choose to help mitigate the stop work issues and conditions. These stop work instances are highlighted in the S&H communication *The Weekly Roundup* where employees not only see that bringing forth issues is encouraged but can also learn from the actions taken at other site locations.

WCH maintains a culture where all employees from senior management to front line employees feel free and have the ability to raise concerns. Methods to raise concerns include:

- Site suggestion boxes.

- HGET VPP Survey comment section.

- Local Safety Improvement Team (LSIT) Logbook.

- Corrective Action Management System.

- Direct feedback with first line supervision, LSIT committee members/chairs, WCH site management, WCH senior management, HAMTC safety representatives, union stewards, WCH Project Safety Representatives, WCH SH&Q Senior management, HAMTC Union Hall, WCH Project Safety Committee, DOE-RL ES&H personnel, DOE-RL Facility Representatives, DOE-RL Senior Management, and DOE Headquarters personnel.

- WCH Employee Concerns and DOE-RL Employee Concerns.

- WCH Legal Department.

- WCH ECP Hotline.

- Hanford Employee Concerns Council.

- External Regulators (DNFSB, Washington State, EPA, Inspector General).

Interviews with both WCH and RL Employee Concerns confirm that the level of concerns has dramatically decreased since the inception of the contract. Concerns still exist but are dealt with in a timely and satisfactorily manner for both the employee and the company. The number of

anonymous concerns has also been reduced providing documentation that employees do not have a fear of retaliation from either WCH or DOE. Exit interviews with employees who have raised a concern did confirm that their requests were satisfactorily dealt with in a timely manner.

3.4.1.2 Free Flow of Information for DPO, Safety Issues, Employee Concerns with Prompt Resolution. WCH allows for interactions between employees and management that encourage a free flow of information. During PODs and Pre-Ev meetings, employees are explained the work tasks and review the work packages to ensure that all job duties, actions, and tasks are understood and are able to be conducted as planned. When a question is raised, the team works together to review the method to perform the work correctly and safely with the work package adjusted and revised to reflect the agreed upon safe mechanism to accomplish the work. All levels of employees are afforded the opportunity and expected to raise concerns in Fact Finding meetings after an event. These meetings begin with the premise that information gained is not to place blame but to learn the facts of the incident. All those present in the meeting are provided this information prior to initiation of the fact finding meeting.

WCH does have a Differing Professional Opinion (DPO) procedure and process that is embedded within the *Employee Concerns Program* (BSC-1-12.2) in Section 6.6. Employees are encouraged on their first attempt to use the other programs and processes available to raise a concern. However, if an attempt was made and it is concluded that the current position could have a significant negative impact on protection of the ES&H of employees or members of the public, then they are encouraged to use the DPO process. To date, WCH has not had an employee elect to use this process as the other mechanisms for raising concerns adequately addressed the concern.

3.4.2 Preventing, Detecting, and Mitigating Perceptions of Retaliation

3.4.2.1 Harassment and Retaliation Policy. WCH has two policies regarding raising safety concerns and the policy on retaliation. *Zero Tolerance for Retaliation* (PM-HR-15) as well as the *Worker Bill of Rights* (PM-ESHQ-9) both state that all workers have the right to work in a safety conscious work environment and responsibility to raise concerns without fear of retaliation, or reprisal. The *Employee Concerns Program* (BSC-1-12.1) states in the purpose that WCH has a process and provides the methods for employees, including RCCC team and lower-tier subcontractors performing work for WCH mechanisms, to formally and informally raise concerns without fear of intimidation, harassment, discrimination, criticism, or reprisal. Concerns could include those related to safety, health, quality, security, environmental, fraud, waste, and abuse, management practices, and reprisal for raising a concern.

3.4.2.2 Awareness of No Tolerance for Harassment and Retaliation. WCH routinely provides information on the mechanisms and avenues afforded to employees to raise a concern through formal and informal mechanisms. The Safety & Health Department utilizes *The Weekly Roundup* e-mail communication tool and provides updates to the Stop Work Program, reiterates the Worker Bill of Rights, and reminds employees of their rights and responsibilities. Feedback is also obtained through Hanford General Employee Training (HGET) where employees are asked their perception and opinion concerning safety, management support, concerns, and programmatic actions taken in regards to concerns. WCH HAMTC safety representatives are fully engaged with employees who provide feedback and suggest methods of improvement or raise a concern through HGET. Employees who provide their name via the survey or submit written concerns receive a personal call from the HAMTC safety representatives to help facilitate a resolution to the concern or obtain additional feedback on the improvement opportunity. Project Safety Representatives, supervision, and management are also included in

the notification and resolution process to the employee. The employee is also contacted as a follow up to determine the satisfaction of the employee regarding the actions taken to improve the condition. These employees are favorably recognized not only through the HAMTC safety representatives but also through their LSIT and direct supervision. Mechanisms for recognition include adding their name to a monthly drawing for bringing forth a safety concern, name and situation highlighted in *The Weekly Roundup*, acknowledgement in the POD by supervision and recognition at the Pre-Ev meetings.

As part of the annual ISMS review process, WCH includes the tenets of the Voluntary Protection Program (VPP) as WCH maintains a DOE VPP star status. Part of the VPP review directs interviews with employees on their perceptions, opinions, involvement, and resolution of concerns. Additionally, actively participating employees as well as those that are newly hired or not as active are included in this interview process. This is a random snapshot of perception that occurs on an annual basis with the culmination of these results as well as the HGET VPP survey results documented in the annual DOE VPP report submitted to HSS in February of each year.

3.4.2.3 Employee Perception of DPO and Employee Concerns. WCH does have a DPO procedure and process that is embedded within the *Employee Concerns Program* (BSC-1-12.2) in section 6.6. Employees are encouraged on their first attempt to use the other programs and processes available to raise a concern. However, if an attempt was made and it is concluded that the current position could have a significant negative impact on protection of the ES&H of employees or members of the public, then they are encouraged to use the DPO process. To date, WCH has not had an employee elect to use this process as the other mechanisms for raising concerns adequately addressed the concern.

3.5   SAFETY PERFORMANCE OBJECTIVES, MEASURE, AND COMMITMENTS

WCH instituted a set of ESH&Q performance metrics which are analyzed and reviewed monthly in a standing meeting involving the WCH President and all Directors to include DOE. Through this process, several areas were identified as opportunities for improvement and actions were assigned to achieve those improvements demonstrated through subsequent trending by the performance indicator. Areas improved include reducing workplace injuries and illnesses; vehicle/transportation safety; control of hazardous energy; employee involvement in safety; ESH&Q programmatic compliance; and improving S&H observations, issue identification, documentation, and feedback. DOE facility representatives as well as the DOE VPP assessment team have witnessed these performance metric meetings and provided positive feedback.

WCH has been successful in reaching the FY11 POMCs. All POMCs with established metrics are within the goals established for 2011. Performance within most of the areas has been exemplary. The results of these improvements and trends identified in FY11 assisted WCH in creating the POMCs for FY12. Additionally, as the scope of the contract for WCH concentrates on completion of work and turnover of segments back to the Department of Energy, WCH has streamlined the improvement goals to further the successful closure and turnover mission. The S&H actions that employees have a direct impact on are included in a monthly Safety and Health Improvement Plan (SHIP) that is updated on a monthly basis and provided to all employees.

Throughout FY11, WCH has been self critical of our processes to ensure our processes were postured to maintain safety and quality as production activities increased. WCH recognizes that continuous improvement is needed to maintain this balance. WCH has improved many of the key processes associated with the safe performance of work and has maintained a focus on feedback and improvement.

The FY11 POMCs were developed, communicated, and provided to all field safety representatives, the Local Safety Improvement Team (LSIT) chairs and co-chairs, and the Senior Leadership Team. Focus improvement areas included the following:

- Working toward an injury-free workplace

- Maintaining effective control of hazardous energy

- Environmental program compliance

- Industrial Hygiene

- Competent person qualification

- Continuous improvement and feedback.

3.5.1   Working Toward an Injury-Free Workplace

Working toward an injury free workplace – incident severity reduction for FY11 focused on three areas: 1) Injury/Illness Review, 2) Injury Rate Continuous Improvement, and 3) Fall Protection-Elevated Work/IWCP/Job Hazard Analysis Improvements-Subcontractor Oversight.

3.5.1.1 Injury/Illness Review. Analyze and track all first aid, recordable, and/or days away/restricted cases. Director level review of each injury with the safety representative and the management, document actions to preclude or mitigate similar injuries on the S&H Injury Management Review Report form (base goal). Actions identified for improvement in this area include the following:

- 100% of the incidents that occurred in the quarter were documented and have been reviewed with the Director of SH&Q and/or scheduled for review with the field representatives where the incident occurred.

- Stretch goal met.

3.5.1.2 Injury Rate Continuous Improvement. Monitor TRC and DART 12 Month Moving Average (MMA) trends and implement improvement plans if trending unfavorably. Initiate a targeted corrective action improvement plan when any adverse trend, defined as quarter ending 12 MMA TRC or DART rate is greater than the previous quarter's end, is identified (base goal). Rates are not to exceed 1.4 for TRCR and 0.6 for DART (stretch goal). Actions identified for improvement in this area include the following:

- The first quarter of FY11 showed a positive trend of incident and rates with zero recordable cases in the quarter. WCH did have five first aid incidents involving slips, trips, and falls and caught on/between. In response to these incidents, WCH issued safety awareness bulletins

and refocus presentations on methods to prevent slips, trips, and falls, issued a Winterization and Summer Temperature Preparation procedure with checklists to assist in clearing and preparing walking/working surfaces. Additionally, safety topics and alerts reminded employees to keep their focus on the task at hand and always observe changing conditions.

- The second quarter of FY11 continued a positive trend of incident and rates with zero recordable cases in the quarter. This is the first time since 2006 that WCH has gone two consecutive quarters with 0.00 recordable rates and the first time in project history in achieving a 0.00 recordable rate for quarters 1 and 2 in the fiscal year.

- The third quarter of FY11 continued a positive safety culture. However, WCH did experience 3 recordable incidents involving 2 lacerations and 1 sprain. There were no lost time incidents during this quarter. In response to these incidents, WCH issued safety awareness bulletins and refocus presentations on hand safety, situational awareness, and behavioral safety using the concepts of human performance in safety. Additionally, safety topics and alerts reminded employees to keep their focus on the task at hand and always observe changing conditions.

- The fourth quarter of FY11 demonstrated a marked improvement from the 3rd quarter with an overall finish to the fiscal year better than the previous year (down by 65% from 0.52 to 0.18 TRCR). However, WCH did experience 1 recordable incident involving a laceration to the hand. There were no lost time incidents during this quarter. In response to this incident, WCH issued two safety awareness refocus presentations on vehicle safety, use of proper PPE, situational awareness, being your brother's keeper and behavioral safety using the concepts of human performance in safety. Additionally, safety topics and alerts reminded employees to keep their focus on the task at hand and always observe changing conditions.

- Stretch goal met.

3.5.2 Fall Protection-Elevated Work/IWCP/Job Hazard Analysis Improvements Subcontractor Oversight

Include into the integrated assessment schedule for FY11 to perform independent oversight of subcontractors. Statused quarterly for 90% active sites (base goal) 100% of active sites (stretch goal). To include Elevated Work (Fall Protection, Elevated Work, Ladders, Scaffolding), Excavations, and Heat Stress. Actions identified for improvement in this area include the following:

- Change log summaries identified areas for improvements within the Fall Protection/Fall Prevention Procedure over the past 2 years. These improvements included:

  - Definition of competent and qualified persons

  - Training requirements for competent and qualified persons

  - Roles and responsibilities for various positions involving fall protection

  - Fall Protection Spotter responsibilities and duties-exceeds OSHA requirements

- − Developed an FHPA form (WCH-QSH-050) and process to identify and prevent/mitigate fall hazards

- − Disallowed the use of the exception for 29 CFR 1926.500 (a)(1) allowing for the lack of fall protection for the initial inspection of work (first man up rule)

- − Removed the allowance for safety nets

- − Added the guardrail offset system for fall protection method for open holes in floors or roofs

- − Added a description of acceptable hole covers for workers

- − Clarified the requirement for excavation sloping of 1.5 to 1

- − Added the definition for 100% fall protection, authorized user, body belts, fall hazards, maintenance and safety monitor

- − Revised the definition of the Fall Hazard Analysis to be consistent with the finding form the mid point assessment

- − Added new section to address fall protection requirements for yellow iron

- − Revised the procedure steps for using the FHPA along with adding the instructions to the procedure

- − Added the terms and inconsistencies in the terms OSHA and WCH

- − Added Provided additional documentation associated with qualification requirements for WCH identified roles (spotter, safety monitor)

- − Added appendix A for Typical Anchorage Points

- − Added appendix B requirements for using a crane as a fall protection anchor point

- Briefings/Training

  - − Provided the new requirements for the OSHA crane and rigging standard and how WCH and the subcontractors are expected to implement these requirements

  - − Provided clarification on the current Hoisting and Rigging site wide manual and the delta between this and the newly implemented requirements

  - − Provided briefings to the IH Techs and IH professionals on the new Heat Stress procedure and the consistent application of these requirements

– Provided information to all employees of the importance of critical pre-operations inspections and the need to incorporate any deviations or expanded work scope into the work package

– Provided information on best practices for aerial lifts, flowed this information down to employees and subcontractors

– Provided general Hoisting and Rigging information, lessons learned, and best practices to all employees as a Hot Topic in the Weekly Roundup

– Provided a safety topic on the importance and requirements for the inspection of fall protection equipment and elevated work apparatus

- Assessments

  – Developed a Corrective Action Plan in response to the DOE OA to address subcontractor flowdown, oversight and the process to ensure that subcontractors have the correct requirements listed in their contracts. Conducted reviews and oversight of subcontractor excavations, fall protection & elevated work to ensure requirement compliance to WCH procedures for all four quarters of FY11. Conducted effective oversight surveillances and self-assessments of excavations for subcontractors. Rolled up the results of the oversight and observations in a SHQ self-assessment. Completed the Management Assessment of the subcontractor excavations and provided validation and verification of the assessment results compiled throughout FY11. This assessment was provided as a closure action for a Corrective Action Plan for subcontractor oversight of excavations. This action is awaiting QA verification and DOE approval.

  – Completed the ISMS/VPP Management Assessment to include a review of hazard prevention and controls. This review involved aspects of fall protection and subcontractor oversight which has been improving over the last fiscal year with an increased level of focus and PSR oversight.

  – Conducted oversight of the FHPAs for subcontractors and the follow up evaluation of the execution of these plans to determine compliance.

  – Conducted safety oversight of hoisting and rigging operations of subcontractors in accordance with the Standing Order issued for the new Hoisting and Rigging OSHA requirements.

  – Conducted an external Hoisting and Rigging assessment to determine compliance with the Hanford Site Wide Hoisting and Rigging Program and the new OSAH hoisting and rigging requirements.

  – Conducting a review of the IWCP procedure and process. Improvements included an updated Management Walkthrough Form to include elements of HPI and behavior based safety aspects.

- Completed a review ladders and scaffolding as a result of a fall event at SRS. Provided this information to DOE-RL and the other DOE-RL contractors along with the URS parent company to share.

- Completed a Fire Extinguisher assessment with areas of improvement identified.

- Completed a review of the fire occupancy permits for all WCH buildings. Compliance with this requirement was confirmed.

- Revised Exhibit G to include the most recent changes in the site wide program requirements and updated contract and OSHA requirements and regulations. A change notice will be issued by procurement via the STRs to flow this version of Exhibit G to the subcontracts. S&H provided a change log and a summary of these changes for the change notice.

- WCH formed a WCH subcontractor oversight group to review the process for the flowdown of requirements, risk management, and oversight assessments involving SHQ, Engineering, Procurement, and site project representatives.

- Continue to participate in the site wide programs for Confined Space, Fall Protection, and EJTA. Confined Space and Fall Protection implementation plans approved by the Senior Management Team and letters to proceed are under development by DOE. Elected Contractor represented chair/co-chair person for Confined Space and Fall Protection committees.

- Continued emphasis on vehicle safety and identified the trend in incidents. Communicated this information to the subcontractors.

- Conducted a review of the subcontractor safety incentive program criteria. Included the dashboard information to provide a general overview and health of the safety performance by the subcontractors to DOE. This was guidance after a meeting with DOE-RL. Once this information has been reviewed and agreed upon with WCH management, it will be presented to DOE-RL again for a mutually agreed upon criteria to be added to the subcontracts for future work.

- Stretch goal met.

3.5.3 Maintaining Effective Control of Hazardous Energy

Implement the Hanford Site-Wide Electrical Program. This will include adopting the new site wide program document and training. Document the status of the implementation in the WCH Plan of the Week Schedules. Meet 90%/100% of scheduled items (base/stretch goal). The improvements in the control of hazardous energy included the following:

- WCH met all the scheduled items for the implementation of the site wide electrical program implementation. Attendance at meetings was achieved as required. Gap training was conducted to ensure that personnel were trained to the new site wide standard and the updated revision that was issued in FY11. WCH is currently in the process of deleting PAS-1-2.4, Operation of Equipment Near Overhead Energized Power Lines to help facilitate implementation of this site wide program.

- The Hanford Site Electrical Safety Program, DOE-0359, has been revised with WCH providing feedback to the site electrical safety committee toward this site wide standard with comments included and affecting the overall site wide implementation schedule. Target date for the implementation of this standard for WCH is March 2, 2012 pending authorization from DOE-RL to implement the new program.

- Stretch goal met.

3.5.4 Environmental program compliance

Significant attributes of the Environmental Program Compliance were listed as POMCs for FY11 to ensure that each were tracked and trended with actions put in place when an adverse trend was identified. These attributes contributed to the overall Environmental Management System and helped WCH to maintain the ISO 14001 status for Environmental Compliance. The three areas specifically reviewed involved 1) Environmental Protection Index, 2) Environmental Noncompliances, and 3) Protection of Environmental and Cultural Resources.

3.5.4.1 Environmental Protection Index per quarter equal to 0.9/1.0 (base/stretch goal). This index is calculated based upon criteria specified for compliance relative to air quality permitting, spill prevention control, excavation plans, ecological/cultural plans, and sample management.

- WCH ended the 4th quarter of FY11 with an index of 0.95 which demonstrates a well balanced approach to environmental protection. Improvements continue to be made with additional focus in FY11 on spill management.

- Base goal met.

3.5.4.2 Environmental Noncompliance as defined by DOE M 231.1-2, Group 9 SC4 per quarter equal to 1/0 (base/stretch goal).

- WCH had zero environmental noncompliance issues in FY11.
- Stretch goal met.

3.5.4.3 Protection Environmental and Cultural Resources as defined in DOEM 231.1-2, Group 5, Subgroup B per quarter equal to 1/0 (base/stretch goals).

- WCH had zero environmental protection and/or cultural resource issues in FY11.
- Stretch goal met.

3.5.5 Industrial Hygiene

The emphasis on industrial hygiene and other improvements in this field of S&H was precipitated by the emphasis and implementation of the Chronic Beryllium Disease Prevention Plan issued for Hanford as a site wide document.

3.5.6   Sitewide Respiratory Program

Implementing the sitewide respiratory program includes adopting the new site wide program document, training, and protocols. Document the status of implementation in the WCH Plan of the Week Schedules. Meet 90%/100% of scheduled items (base/stretch goal).

- IH personnel still attending the meetings discussing the type of respiratory protection to be used throughout the site along with sampling protocols. WCH approved the site wide program and conducting a review and analysis of the gaps and impacts of the new program against the current WCH procedures. Participate in weekly communication and subcommittee development meetings. Implementation schedule completed and awaiting Senior Management Team review. Continuing with active participation in procedure maintenance and development.

- WCH approved the site wide program and conducting a review and analysis of the gaps and impacts of the new program against the current WCH procedures.

- Completed - IHWI-5.1 – IH Definitions - Publication Date: 4/7/11.

- Completed - IHWI- 5.1 – IH Acronyms and Abbreviations - Publication Date: 4/7/11.

- IH personnel still attending the meetings discussing the type of respiratory protection to be used throughout the site along with sampling protocols.

- Participate in weekly communication and subcommittee development meetings. Implementation schedule complete and awaiting Senior Management Team review. Continuing with active participation in procedure maintenance and development.

- Base goal met.

3.5.7   Hanford Sitewide Beryllium Program

Implementing the Hanford Sitewide beryllium program by completing the WCH actions assigned per the Hanford site wide Be CAP. Document the status of the implementation in the WCH Plan of the Week Schedules. Meet 90%/100% of scheduled items (base/stretch goal).

- Conducted training, briefings, awareness information, and facility assessments.

- Developed a special beryllium action group within WCH including individuals from URS corporate and subject matter experts. This team is conducting a review of past sampling results, current beryllium protocols, BWPs, and incorporating the beryllium DOE interim guidance into current practices.

- Working on the WCH beryllium CAP actions through the plan of the week schedule. Met all milestones established for the first quarter of FY11.

- All items entered into the CAM systems with a REA and gap analysis conducted as part of the evaluation of the interim guidance from DOE.

- Conducting on-site sampling and surveillances to provide confirmatory samples for areas and postings. Conducted training, briefings, awareness information, and facility assessments.

- The Site team developed a draft product description for most of the CAP item groupings and will continue those efforts, by forming 25 product descriptions. Thirteen of 25 product descriptions are considered phase 1 and on-going for implementation. The remaining 12 product description are considered phase 2, and will commence sometime after phase 1 is near completion. Both phase 1 & 2 completion dates are TBD.

- Although the site beryllium facility characterization process has not been approved, Washington Closure Hanford has proactively re-evaluated and sampled 85 of 85 facilities and 84 conex boxes, as directed by DOE-RL Interim Guidance. Additional sampling is expected once characterization process is approved.

- Transitioned individual CAP item to a group approach where all actions are grouped under products with a systems approach to consensus. This approach includes the site wide companies, the Beryllium Awareness Group (BAG), HAMTC, RL and ORP. Continued with Beryllium committee and CAP completion activities with work accomplished in the development and review of the draft Beryllium permit and facility assessment process.

- Stretch goal met.

3.5.8 IH Program Implementation

Conduct a review and update as necessary the IH procedures through a prioritized list to provide and effective and integrated IH program. The following list of activities will be managed through the Integrated Assessment Schedule for FY11. The status of completion will be reviewed through the Plan of the Week schedule. Meet 90%/100% of scheduled items (base/stretch goal).

- Added additional IH staff personnel to support field work, programmatic IH actions and procedural revisions and reviews, and beryllium CAP.

- Developed beryllium Cap corrective actions and actively engaged I the development and beryllium sampling protocols and BWPs.

- Schedule developed for IH program document improvements, review, and revisions. This schedule was added to the Plan of the Week schedule.

- Additional beryllium surveillances and dry-run procedure effectiveness conducted in the project locations.

- WCH recognized nationally for good working relationship with union, customer, BAG.

- Developed resource loaded schedule, tracking progress including the support and submittal of the beryllium REA.

- Integrating beryllium team into ES&H organization.

- Conduct weekly IH staff meetings and monthly meeting with IH field technicians to improve overall communications and consistent and effective implementation of IH programs and processes.

- Provided controls and precautions for extreme weather conditions and the potential health effects for personnel.

- Procedure/Document updates:

  - SH-1-4.16, Hazard Communication.

  - SH-1-4.19, Industrial Hygiene Sampling for Beryllium.

  - 100-5.1 IH Definitions.

  - Drafted the update for 100-5.2 IH Acronyms & Abbreviations .

  - IHWI-5.1 – IH Definitions – Publication.

  - IHWI- 5.1 – IH Acronyms and Abbreviations.

  - All IHWPs were cancelled pending the transition for formal procedures. The IHWPs in pending work packages will be utilized until 09/30/11.

  - Issued the revised Heat and Cold Stress procedures, SH-1.4.5 and SH-1-4.21 respectively. Both procedures briefed to affected employees and technicians. These procedures were revised to ensure that the contractual requirements of the ACGIH TLV/BEL 2005 and the input from employee and field tech personnel were incorporate to continuously improve the program.

  - ISH-1-4.7, Asbestos.

  - Published new Heat Stress/Cold Stress Procedure # SH-1-4.5.

  - SH-100-2.1 Sampling Methodology.

  - SH-100-1.1 IH Technician Training and Qualifications.

  - SH-100-1.2 Document Completion .

  - SH-1-4.23 Chromium .

  - SH- 1-24 Industrial Hygiene Data Management.

  - SH-100-2.1 Sampling Methodology. Incorporated sampling methods for the Beryllium Finder to support the new Mobile Beryllium Sampling Lab.

  - SH-100-2.3 Beryllium Routine Sampling.

- SH-1.4.1 Industrial Hygiene Procedures, Rev.4.

- Conducted a presentation/briefing for the rollout of Heat Stress for project IH.

- Provided Beryllium Program and CAP updates and improvement actions conducted by the WCH Beryllium action group and the WCH representatives attending the Be Site Wide Committee.

- Provided communication to all employees of the issues identified on a MSA respirator hood that could cut into PPE and/or the employee.

- WCH recognized nationally for good working relationship with union, customer, and BAG. Bi-weekly meetings being help with staff and craft to work through improvement actions and issues.

- Cole – Ash Beryllium position paper completed and presented to the IBOT with approval of this methodology

- Completed a review of the respirator selection, training, and distribution for WCH. The IH evaluation concluded that some of the respirators and training could be deleted to effectively save time in training and unused units. The IH provided briefing to all sites on the changes and provided the opportunity for personnel to comment and gain additional information on the changes.

- The IH data processing continues through document control. A system has been developed to ensure that all records are reviewed and categorized in the records system. This process has begun and will continue through the end of this calendar year to ensure that all WCH and subcontractor IH records are properly recorded.

- Base goal met.

3.5.9   Competent Person Qualification

Competent Person – Review and update the applicable Safety and Health procedures to identify the areas where competent persons are required by 10 CFR 851. Included in this goal are the development of the competent person verification process and the incorporation of this process into S&H procedure updates. Completion of verification process and update of 90%/100% of the procedures that are identified (base/stretch goal).

- Competent person criteria and sections were identified and peer reviewed.

- Applicable information on competencies was added to Exhibit G for subcontractors for site wide program initiatives.

- Competent person procedure, SH-1.2.11, issued. New procedure drafted to include the latest information from the Site-Wide Fall Protection Program. Added information and terms from OSHA to ensure that other S&H competencies.

- Stretch goal met.

3.5.10 Continuous Improvement and Feedback

3.5.10.1 Performance Analysis. Conducted per year equal to 3/2 (base/stretch goal). Conduct Performance Analysis meetings involving senior staff personnel charged to evaluate the RCC performance and determine measurements and improvement initiatives to address program trends and issues identified. Track and communicate results on the WCH web site under the Quality Assurance Organization Section.

- Two performance analysis meetings were FY11. Items reviewed current trends and programmatic items that could be adopted project wide to provide operational improvements.

- Base goal met.

3.5.10.2 WCH Key Performance Indicator. Monthly evaluations conducted per quarter equal to 2/3 (base/stretch goal).

- Monthly meetings were held throughout FY11 with the exception of 1 month during the holiday period where two meetings were combined into one. WCH met the base goal of conducting 11 meetings within FY11. However, each month of performance indicator data was reviewed by the SMEs and WCH senior management team.

- Stretch goal met.

3.5.10.3 Operating Experience Documents. Operating Experience documents issued per quarter internally equal to 30/40 (base/stretch goal) (e.g., LL, JTT Dodge the Bullet, Flash, Rude, Safety, Alerts, Hot Topics).

- Operating Experience documentation issued exceeded the stretch goal each quarter. Operating experience documents include, Lessons Learned, Do It Right the First Time information, Flash bulletins, Just in Time bulletins, Rude Awakenings, Take 5 for Safety, Toolbox Topics, Safety Awareness, Hot Topics, Safety Refocus Documents, Safety Alerts, Occurrence Reports, and DOE safety bulletins. These totaled 259 documents issued during FY11.

- Stretch goal met.

3.5.10.4 Safety and Health Improvement Plan Development, Implementation and Communication. Establish a SHIP that includes key goals and commitments for safety and health and communicate these goals to all employees with updated information on the status and achievement of goals on a quarterly basis (base goal).

Results:

- SHIP summary was provided to project field locations detailing the improvements that WCH has implemented since the beginning of FY11. This presentation was provided in addition to the monthly updates that are sent via the "Weekly Roundup."

- Monthly updates are provided via the Weekly Roundup and issued as a Hot Topic reviewed by Project Safety Representatives in the Project Safety Meetings.

- Quarterly summary reports are evaluated and communicated to senior management with appropriate response and action items developed as a result of the review. This information is communicated to the project personnel.

- Additional improvement items and initiatives introduced as safety improvement items included:

  - Safety Events/Activities.

    - Launched the winter safety campaign providing cocoa and checking for proper footwear.

    - Launched the "Safety Pays" campaign issuing silver coins to directors and project management encouraging these individuals to walk the jobs and provide the coins to employees for safe acts and conditions.

    - Conducted a 90-day safety celebration for the ERDF operations.

    - Congratulated Mission Completion on a 6-month milestone.

    - Congratulated 300 Area FR on a 90-day safety campaign.

    - Provided Safety activity Mixed Bag of Safety Crossword.

    - Announced the WCH Appreciates you initiative to encourage the recognition of employees who go above and beyond for their work efforts.

    - Provided a hazard contamination control word search activity to all employees.

    - Completed the Groundhog Day Campaign to bring awareness and open discussion on Lessons Learned.

    - Spring into Summer Safety Campaign-Provided activities for all employees to complete to raise safety and health awareness.

    - Celebrated 3, 4, and 5 million safe work hours without a day away from work incident for all of WCH to include subcontractors. WCH celebrated 3 million safe work hours with an off site S&H meeting and motivational speaker. The 4 and 5 million hour celebrations were conducted at all site locations with WCH President and Deputy Director personally thanking employees for their safe, visible progress.

    - Safety Event on heat stress mitigation for the summer months.

  - Site Celebrations and Achievements

    - The D4 project celebrated 1 year without a recordable incident with an all hands safety celebration and refocus reviewing electrical incidents, lessons learned from

other URS projects, and provided a motivational speaker to emphasis that without improvement that complacency can result.

- 100-N celebrates their "Water Daily" campaign for heat stress.

- 100-N Celebrated the completion of 90 days with no incidents.

- 300 Area FR reached their goal of 90 days with no first aids or recordable incidents.

- FR celebrated 1 year without a recordable incident.

- Celebrated 1 year without a recordable incident for the IU 2&6 FR project.

- 100-D completed 180 safe day celebration.

- 100-D/DR reached milestone of 9 months with no lost work days.

- 118-K accomplishes four 90-day safety celebrations.

- 100-F 90 day safety celebration.

- 100-C-7 celebrate another 90 days injury free after completing their campaign, "The Deeper the Hole the Safer We Go."

- 100-N FR 90-Day safety achievement.

- 100-H Celebrated 6 months of safe work hours, effective conduct of operations and lack of electrical incidents.

- 100-H Safety Campaign…Beating the Heat Safely summer campaign.

– Health Focus

- Reminder provided to WCH employees the dates for free flu shots being offered by AMH.

- Provided link to the AMH webpage and Hanford Highway to Health Campaign and the AMH Newsletter.

- Provided topics on:
    – Proper vision checks
    – The use of radon detectors and how radon accumulates in our homes
    – Ways to quit smoking
    – Importance of heart health
    – Affects of fatigue on health and work effectiveness
    – Affects of the lack of sleep and the specific issues for certain parts of the body
    – The roles and responsibilities of each employee when responding to a medical emergency
    – Staph and MRSA infections

- – Summer poison safety
- – Cancer awareness and prevention article in recognition of Cancer Awareness Month
- – Men's health month
- – Proper tick removal
- – Myths about sunglasses
- – Improving vehicle ergonomics
- – CDC-Control and Prevention of Influenza
- – Flu shot times and dates
- – Preparations for the seasonal flu
- – Ergonomics-Neutral Postures
- – Ergonomics-sitting instead of stooping or squatting
- – Heat Stress recommendations
- – How to properly adjust your ergonomic chair
- – First Aid…What it can mean
- – Ergonomic-general requirements and regulations
- – Blackberry thumb
- – The effects of pushing and pulling
- – Dangers of eye strain
- – Information on eye strain
- – Effects of a proper monitor and eye protection from glare
- – Information on holiday travel and proper handling of luggage.

- Hosted a health fair for employees. Cholesterol test, blood sugar testing, and body mass index.

- Provided ergonomic word search exercises.

- Provided Heart Health and Sudoku activity.

- Provided educational activity on proper work area ergonomics.

- Provided a pamphlet with resources on smoking cessation.

- Issued the Fermi Spring into Summer Winners Poster.

- Provided the S&H point tracker worksheet for the Spring into Summer Campaign. This campaign included daily, weekly and monthly activities promoting safety, health and wellness.

- Provided an informational pamphlet describing the service offered through the employee assistance program.

- Issued an OSHA information sheet regarding the dangers of working in warm climates including how to deal with pest frequently observed in warmer climates, poisonous plants and other warm weather dangers.

- Heat stress crossword puzzle awareness.

- Annual EJTA review for all employees.

- Issued an ergonomic daily stretch poster.

- Ergonomic Back Safety Questions and Answers.

− Vehicle Safety:

- Provided employees information on
  − Pedestrian and vehicle safety
  − Importance of conducting a 360 walk-around inspection and using travel partners to help with this observation
  − What to do in the event of a tire blow out
  − What to do in the event of a car fire
  − Myths and fact on seat belts and seat belt use
  − Vehicle safety awareness on winter driving safety
  − Guide on winter driving and posters detailing the proper parking place for government vehicles and snow removal
  − Road trip preparedness
  − Distracted driving, construction equipment and working around this hazard, laws on slowing down and moving over for emergency vehicles, and aggressive driving
  − Weatherizing your vehicle for spring
  − Driving in gusty winds and the affects of driving during the change due to daylight savings
  − Teen drivers and the most deadly 100 days of the year
  − How to properly inspect your tires to help facilitate safer driving
  − Driving precautions for driving in hot weather
  − Use and need for seatbelts
  − Summary of road traffic injuries
  − Child safety seat tips
  − Preparing for vehicle emergencies
  − Improving vehicle ergonomics
  − Distracted driving…slide presentation from the national safety council.

- Launched a vehicle safety month campaign with three activities and a pledge card to continue to raise employee awareness of vehicle safety. Provided an incentive for employees who completed the safety activities.

- Provided employees with an opportunity to pledge to drive safe during October and beyond in support of vehicle safety month.

- Participated in a Hanford Site Wide pedestrian and vehicle safety video. A WCH employee was interviewed and provided tips on walking defensively.

- Created site map cards with phone numbers. Provided these to WCH and subcontractors along with other Hanford site contractors, Patrol, and the central badging station.

- Provided a distracted driving Public Service Announcement.

− Safety Refocus:

- Provided Post Winter Holiday Refocus highlighting Slips and Fall awareness, Effective work control and Planning, effective Hazard Analysis and Safety and Quality as Core Values.

- Shared a Holiday Refocus after President's Day combining the topics of preparing for heat extremes, getting back to basics and focusing on safety.

- Provided a Memorial Day Refocus presentation highlighting the rise of recent first aid and recordable incidents and exploring the behavior that may have played a role in these occurrences.

- Provided a July 4th Refocus on heat stress, lacerations and commitment to closure.

- WCH initiated a refocus with a baseball theme to reiterate employees to stay focused and to raise the awareness of a nearing milestone of 5 million safe hours. The refocus information concentrated on the safety, radiological, and conduct of operations issues that were self-identified in July and August and to ensure that employees re-engage in the safety program. Emphasis was given on being "our brother's keeper" to watch out for our own and others safety. All employees from the President down to the workers in the field are accountable and responsible for safety and play a part in the safe team and culture for WCH.

- Safety Refocus-Labor Day: Topics included the recognition of 5 Million safe work hours, Brother's Keeper, new LSIT initiatives, and vehicle incidents.

− Electrical Safety Focus

- Provided a lockout/Tagout safety presentation

- Provided information on arc flash potential, controls, and precautions.

- Provided a Safety Awareness on a Los Alamos Electrical accident

- Provided safety topic on kitchen safety detailing electrical hazards found in home kitchens

- Provided a visual Diagram of Safe Electrical practices in the workplace

- Shared an article on electrical storm facts and safety precautions.

- Shared a video on proper lockout/tagout.

- Shared an ORPS incident when a worker contacted an energized line.

- ISMS/VPP

  - Concluded the ISMS/VPP awareness campaign. Provided additional scratch cards for employees earning these with reminders and additional information provided in WCH publications and POD meetings.

  - Attended and presented at the National Voluntary Protection Program Participants' Association (VPPPA) conference in New Orleans. Presentation included topics on Employee Involvement in the safety program.

  - WCH employee re-elected to the National Board of Directors at the Representative from a DOE-VPP site.

  - WCH employee receives the DOE VPP Champions Award for outstanding mentoring, innovation, and above and beyond assistance to the DOE VPP HQ team as a member of onsite review teams.

  - WCH receives the DOE VPP Star of Excellence for rates at least 70% below industry average, outstanding innovation and mentoring, and going above and beyond in the field of safety.

  - Provided a presentation at the URS ES&H Workshop on VPP and the benefits of this program.

  - Provided VPP Update Webcast for URS Corporation.

  - Provided VPP presentations to personnel across the country in response to the employee involvement presentation provided at the National VPPPA conference.

  - Provided presentation on the DOE VPP Update at the ABIH conference and two at the Region X VPPPA conference.

  - Provided presentations at the Region X VPPPA conference on Employee Involvement and Sustaining VPP Star.

  - Maintained the mentoring of the Stoller Legacy Sites contract through the application and submittal process. Confirmation from DOE VPP HQ on receipt of application received with on site reviews scheduled for FY12.

  - WCH was highlighted in the on-line edition of the Daily Safety Advisor highlighting the benefits of VPP and effective employee involvement and committees in successfully improving safety culture and reducing hazards.

- On-site Training:

  - Provided 4 hour training on Accident investigation

- Provided 8 hour STS training at the Hanford site, ISMS Workshop, and at the National VPPPA Conference

- Provided 10 hour training on Crane Safety Awareness.

- Provided an OSHA Recordkeeping Class to WCH, WRPS, and CHPRC personnel.

- Provided OSHA Training Institute Ergonomics Training

- Provided URS Corporate training on the Safety by Design aspects of planning safety into the work planning.

- Crosby Hoisting and Rigging Training

- Safety Awareness:

  - Issued a safety awareness article on effects of complacency and it can impact accident rates.

  - Provided a safety awareness article on the dangers of Brown Recluse Spiders

  - Provided a Safety Awareness on proper use of anchor points.

  - Provided a detailed instruction on how to access the MSDS website.

  - Provided information on OSHA's Top violation list with scaffolding being the top cited.

  - Reminded employees of daylight savings times and the change in condition and safety precautions needed during this transitional time period.

  - Issued a cold weather guide to all employees.

  - Congratulated employees on 2 Million safe work hours.

  - Shared Post Thanksgiving Refocus on Quality, Safety, Cost and Schedule.

- Highlighted Stop Work:

  - Soil that was being sampled came in contacted with an employee. Detailed the precautions taken to address the removal and testing of the soil.

  - Provided information on bungee cord safety as it relates to the tarping of ERDF cans to all employees.

  - Stop work at 128N when a worker came in contact with an odor that he did not recognize. The odor was categorized an anomaly.

– Stop Work at 100N FR when a worker found a leaking drum containing an unknown substance. The drum and contaminated soil were contained.

- Provided awareness for Fire Dangers to support National Fire Protection Month including:

  – Hanford burn restrictions
  – Bedroom fire safety
  – Carbon monoxide safety tips
  – Home fire prevention presentation
  – Fire Safety Quiz.

- Stretch goal met.

3.5.10.5 Human Performance Initiative Activities/Awareness information provided to all employees 6/8 per year (base/stretch goal).

- To tie together the behavioral initiatives, WCH S&H provided HPI tips and information through the Weekly Roundup. This initiative was designed to assist with the effective improvement and maturity of the WCH safety culture by encouraging employees to make lasting changes to the behaviors and the application of these into both their work and home environments.

- Provided an awareness activity on Error Precursors. Detailed conditions that could increase human error such as task demands, individual capabilities, work environment, and human nature.

- Asked employees to generate their own error precursors and share these as a safety topic.

- Provided an awareness article on latent organizational weaknesses which are undetected deficiencies in organizations, values, or equipment.

- Employees were asked to identified in an incident was a cultural weakness or an individual error based upon cases provided.

- Provided a lessons learned on how to communicate with employees to help increase their effectiveness, increase the likelihood of the desired results and change behaviors.

- Issued a hot topic on the HPI Barrier Model. This concept involves accident causation using this model of barriers that could include plant or equipment, process, and/or people barriers. The "Swiss cheese" example is given to illustrate this concept that all the precursors could line up just so and cause the incident when no barriers are left to prevent the incident.

- Provided a safety topic on personnel being committed to safety and potentially losing focus if we rest on success instead of continuously improving.

- Provided a safety topic on how attitudes affect safety improvements and performance.

- Updated the IWCP and work control processes to include a revision to the management walkthrough form. This revision added elements of HPI. This process includes the identification or error precursors and reviewing employee actions and behaviors.

- Issued activity Anatomy of an event as a Safety Topic in the Weekly Roundup. This provided the categories involved including latent organizations weaknesses, flawed controls, initiating action and error precursors that could cause and event.

- Issued activity Event Analysis and Investigation as a Hot Topic in the Weekly Roundup. This information provided topics on how to analyze and investigate an event effectively.

- Issued Identifying Human Performance Tools for Successful Task Completion part #1 as a Hot Topic. The error prevention tools procedure use and adherence and job site review were discussed in this article.

- Issued Identifying Human Performance Tools for Successful Task Completion part #2 as a Hot Topic. The error prevention tools discussed in this article were self checking, task preview, and job site review were discussed in this article

- Incorporated behavioral observations into the 7th Inning Stretch Refocus campaign in conjunction with the safety initiative of 5 Million Safe Work Hours.

- Encouraged employees to conduct behavioral observations in the field.

- Initiated Senior Supervisor Watch program for the D4 projects with managers in the field for a full day conducting observations and communicating with employees.

- Enlisted the LSIT chairs and membership to coordinate behavioral observations with the PSRs to observe employee behaviors and acts and to create behavior observation items to provide on the spot recognition.

- Provided two presentations in August dealing with HPI attributes and behaviors to include error precursors and tools needed to help modify employee behaviors through an established safety system such as ISMS and the tools and tenets of VPP. These presentations were held at the URS ES&H Development Workshop and the National VPPPA conference.

- Provided behavior based characteristics and observations to the LSIT for the development of the WOW-Workers Observing Workers and the Above and Beyond programs. These are both LSIT based programs which are operated and run by the employees. These programs focus on the positive recognition and reward of good and safe employee behaviors. This program will kick off in October 2011.

- Stretch goal met.

The FY12 POMCs are found in Table 1 with the summary of the sections of improvement areas as follow:

- Work Toward an Injury-Free Workplace
  - Injury/Illness Review

- Injury Rate Continuous Improvement
- Integrated Work Control Process-New

- Environmental Program Compliance
  - Environmental Protection Index
  - Environmental Noncompliance
  - Protection of Environmental and Cultural Resources

- Subcontractor Oversight-Safety Subcontractor Program Performance

- Site Wide Program Participation and Implementation
  - Implement the Site-wide Respiratory, Confined Space, Fall Protection, and Electrical Programs-New
  - Participate in the Hanford Site-wide Beryllium program-New

- Continuous Improvement and Feedback
  - WCH Key Performance Indicator monthly evaluations
  - Operating Experience documents
  - Safety Culture-New.

Table 1. ISMS Performance Objectives, Measure, and Commitments for Fiscal Year 2012 Rev. 2. (2 Pages)

Objective	Quarterly Performance Measures and Commitments
Work Toward an Injury-Free Workplace	**Injury/Illness Review** – **Analyze and track all first aid, recordable, and/or DART cases**. Director level review of each injury with the safety representative and line management, document actions to preclude or mitigate similar injuries on the S&H Injury Management Review Report form (base goal).
	Injury Rate Continuous Improvement – Monitor TRC and DART 12 MMA trends and implement improvement plans if trending unfavorably. Initiate a targeted corrective action improvement plan when any adverse trend, defined as quarter ending 12 MMA TRC or DART rate is greater than the previous quarter's end, is identified (base goal). Rates are not to exceed 1.4 for TRCR and 0.6 for LWCR (stretch goal).
	Integrated Work Control Process - Re-establish the SOP for all employees through the integration of established and implemented programs (i.e., ISMS, VPP, EMS, Work Control, etc.). Document and distribute the information, communication, and activities to support the implementation of the tenets of SOP…Follow the Instruction, Ask the Question, Fix It Now, and Own the Result. (base goal)
Environmental Program Compliance	**Environmental Protection Index per quarter equal to 0.9/1.0 (base/stretch goal).** This index is calculated based on criteria specified for compliance relative to air quality permitting, spill prevention control, excavation plans, ecological/cultural plans, and sample management.
	Environmental Noncompliance as defined by DOE M 231.1-2, Group 9 SC4 per quarter equal to 0/1 (stretch goal/base goal).
	Protection of Environmental and Cultural Resources as defined in DOE M 231.1-2, Group 5, Subgroup B per quarter equal to 0/1 (stretch goal/base goals).
Subcontractor Oversight	**Subcontractor Safety Program Performance** – review the subcontractor safety program via field observations, assessments and Subcontract Technical Representative Oversight to determine overall safety and health program performance. Evaluated on a quarterly basis (base goal)

Table 1. ISMS Performance Objectives, Measure, and Commitments for Fiscal Year 2012 Rev. 2. (2 Pages)

Objective	Quarterly Performance Measures and Commitments
Site Wide Program Participation and Implementation	**Implement the Site-wide Respiratory, Confined Space, Fall Protection, and Electrical Programs,** including adopting the new site-wide program document, training, and protocols. Document the status of implementation in the site wide program schedules. Meet 90%/100% of WCH scheduled items as outlined in the Site Wide Implementation Schedule (base/stretch goal).
	Participate in the Hanford Site-wide Beryllium program. WCH will participate in the Hanford Site-wide Chronic Beryllium Disease Prevention Plan committee. Document the status of participation in the site wide Be meetings. Attend 90%/100% of scheduled meetings (base/stretch goal).
Continuous Improvement and Feedback	**WCH Key Performance Indicator monthly evaluations conducted per quarter equal to 3/2 (stretch goal/base goal).**
	Operating Experience documents issued per quarter internally equal to 40/30 (stretch goal/base goal). (Lessons Learned, Just in Time, Do It Right the First Time, Safety Flash, Rude Awakening, Safety Alerts)
	Safety Culture – Ensure that safety initiatives, programs, and/or awareness campaigns are developed and implemented project wide to continue to foster an improving safety culture. These efforts will be communicated to all employees and tracked through the quarterly update reports. Communication and implementation will be measured by evaluating the participation in the program and LSIT initiatives, LSIT log book entries, periodic self assessments, injury/illness rates, and documented in the ISMS/VPP annual review. (base goal).

DART= days away, restricted, or transferred
EMS = Environmental Management System;
FY= fiscal year
IH= Industrial Hygiene
IWCP= Integrated Work Control Program
LSIT = Local Safety Improvement Team
LWCR= lost work day case rate

MMA= month moving average
S&H= Safety and Health
SOP = Safety Ownership Program
TRC= total recordable case
TRCR= total recordable case rates
VPP = Voluntary Protection Program
WCH = Washington Closure Hanford

3.5.11 Integrated Safety Management Performance Indicators

WCH will continue to review and report on a comprehensive set of SH&Q performance indicators that are used routinely by senior management and staff to evaluate the implementation and effectiveness of the ISMS. The ISMS performance indicators listed below are modified, as needed, to ensure that the correct ISMS attributes are being assessed. Current ISMS performance indicators include the following:

- OSHA Total Recordable Case Rate: Number of OSHA recordable injuries and illnesses multiplied by 200,000 and divided by the total number of work hours (including subcontractors).

  – WCH had a total of three recordable incidents in FY11 with a TRCR of 0.18.

- DART Case Rate: The number of OSHA recordable cases involving days away from work, days involving restricted work or job transfer multiplied by 200,000 and divided by the total number of work hours.

  – WCH had a total of zero incidents in FY11 with a DART of 0.0.

- Radiological Uptakes: Radiological uptakes, as defined by DOE M 231.1-2, Group 6, Subgroup C, Criteria 3.

    – WCH experienced zero radiological uptakes in FY11.

- Radiological Skin Contaminations: Radiological skin contaminations, as defined by DOE M 231.1-2, Group 6, Subgroup D, Criteria 3.

    – WCH experienced zero radiological skin contaminations in FY11.

- Hazardous Energy Control Events: Hazardous energy control events resulting in a person contacting hazardous energy, as defined by DOE M 231.1-2, Group 2, Subgroup C, Criteria 1 OR hazardous energy control events where personnel fail to follow prescribed hazardous energy control processes, as defined by DOE M 231.1-2, Group 2, Subgroup C, Criteria 2.

    – WCH had two incidents in this category in the 2nd and 4th quarter. Evaluation of these incidents concluded that the causal factors were not related.

- Spills and Releases: As defined by DOE M 231.1-2, Group 5, Subgroup A.

    – One spill was reported in the first quarter of FY11. Improvement actions were instituted resulting in no additional spills for the rest of FY11.

- Transportation Safety: Transportation safety events as defined by DOE M 231.1-2, Group 8.

    – WCH experienced zero transportation safety related events in FY11.

- Near-Miss Occurrences: A reportable event or situation as described by DOE M 231.1-2, Group 10 in which an inappropriate action occurs, or a necessary action that could be reasonably expected to occur, is omitted and could have resulted in a serious personnel injury. This includes a situation in which controls that should have been in place were absent or overlooked.

    – WCH had two incidents in this category in the 2nd and 4th quarter at the same site location. Evaluation of these incidents concluded that the causal factors were not related.

- Technical Safety Requirement Violations at nuclear facilities.

    – WCH experienced zero technical safety requirement violations in FY11.

- Completed Corrective Actions: Number of actions completed within the CAM system.

    – Greater that 70% of the actions entered into the CAM system were completed in FY11 which meets the base goal.

- Completed Scheduled Assessments: Ratio of the number of completed scheduled and unscheduled assessments compared to the number of scheduled assessments.

- Greater than 85% of the scheduled assessments were completed in FY11 which meets the base goal. Additional information is still being evaluated that could improve this percentage.

- Percent of corrective actions that are overdue: Items within an IF in the CAM system.

  - Less than 5% of the actions within the CAM system were overdue which meets the stretch goal.

- Percent of actions that are >180 days old: Items within an IF in the CAM system.

  - Less than 9% of the actions were greater than > 180 days old which meets the base goal.

- Percent of actions that are extended: Items within an IF in the CAM system.

  - Less than 11% of the items listed in the CAM system were extended which meets the base goal.

- In accordance with the RCCC (DE-AC06-05RL14655) Clause I.93, "Integration of Environment, Safety, and Health into Work Planning and Execution" (DEAR 952.223-71), WCH is required to annually review and update its ISMS POMCs. POMCs are updated using inputs from the previous year's performance, internal and external assessments, and worker input via the various feedback mechanisms available through WCH. The POMCs were developed in accordance with QA-1, *Quality Assurance,* QA-1-1.15, "Development, Review, Approval and Submittal of ISMS Performance Objectives, Measure, and Commitments." The POMCs for FY12 are described in Table 1.

3.6   ISMS EFFECTIVENESS AND CHANGES MADE TO THE ISMS OF THE WCH ISMS

It was determined that the WCH ISMS is effectively implemented and maintained based upon the mechanisms, procedures, and processes reviewed and verified throughout the year. During the annual WCH ISMS/VPP review, a thorough evaluation and review of internal assessments, external assessments, management observations in the field, Environmental, Safety, Health, and Quality (ESH&Q) metrics, and the completion and implementation of ISMS actions in the CAM system was conducted. Extent of condition evaluations were performed for issues identified for improvement.

WCH implemented an aggressive internal assessment schedule comprised of areas and topics identified as potential improvement areas and topics identified in the POMCs and the SHIP to facilitate continuous improvement. Effectiveness reviews and assessments were also conducted to determine the level of implementation of an improvement action. All types of internal assessments provided feedback on the health and degree of implementation of WCH programs and processes. In each assessment, improvements were identified and best practices reiterated and institutionalized to ensure these processes could be repeated and continued. Observations and findings were entered into the CAM and tracked to closure to determine the effectiveness of the corrective actions.

External assessments and reviews were conducted in concert with internal WCH assessments. Program assessments, Defense Nuclear Safety Board reviews, Department of Transportation, Security, external corporate reviews, and DOE assessments and investigations were conducted to assure implementation and programmatic compliance. Results of these assessments were positive and provided valuable confirmation that newly implemented programs and practices were effectively implemented and identified additional improvement opportunities to provide a greater level of worker safety. These assessments also confirmed that improvements put in place have been effective.

To complement both internal and external assessments, WCH management, at all levels, is a visible presence in the field. Management conducts regular management walk-through observations and inspections with field and site S&H personnel, as well as STSs conducting walk-through inspections. Both type of management reviews document their observations, provide feedback to the site management and safety representatives, and facilitate corrective actions based upon these observations.

Observations from assessments, management, LSIT members, and STSs contribute to the defense and analysis of ESH&Q metrics. These metrics are evaluated on a monthly basis to provide real-time data on the health and implementation status of our ISMS programs and processes. DOE is also provided a health report on a monthly basis of the WCH Contractor Assurance Program and the overall health of the program. WCH together with DOE determine areas of improvement and confirm effectiveness of actions taken to help reduce the risk of reoccurrence of issues.

WCH senior management is provided a briefing on a monthly basis for these metrics and offers feedback to process owners and facilitators on how to correct any emerging trends or additional metrics that may need reviewed and tracked. Quarterly, these metrics are provided to RL with an analysis of the programmatic changes that have occurred and the corrective actions that have been implemented.

To bring the assessments, reviews, observations, and metrics full circle, improvements and/or corrective actions identified are entered, analyzed, and tracked to closure within the CAM system. This system allows for the trending and tracking of all WCH issues, regardless of the level of severity, to ensure that all are documented and implemented effectively. This system also allows the integration of issues that were found to be programmatic in nature, to be addressed, not as individual issues, but as process improvements.

3.6.1   ISMS Implementation

WCH confirms on a daily basis that S&H considerations are integrated into RCC project work processes. The WCH ISMS focuses integrating S&H considerations at all levels through the workflow processes and are fully integrated into the IWCP process. Key elements of this work review include verification of planning work as a team; identifying responsibilities; ensuring appropriate staff members are involved in the work; identification of critical resources on each job; ensuring walk downs, pre-, and post-job briefings are conducted; and verifying that personnel are adequately trained.

In an effort to provide consistent and repeatable requirements throughout the Hanford Site, RL has charged the Mission Support Alliance contractor to facilitate, develop, and implement site-wide programs. This action involves all the main contractors on the Hanford Site with the action to develop and review the proposed programs and procedures. In FY11, WCH reviewed

internal requirement for electrical safety and has effectively implemented the elements of this program. While WCH has not yet received an official notification of implementation, WCH has confirmed that current processes are in compliance with applicable requirements. Both Stop Work and Hoisting and Rigging have fully been incorporated with numerous other programs in the development and implementation phases. As implementation is directed, WCH will ensure that all requirements are implemented and personnel are trained.

Even though opportunities to improve still exist, the internal and external reviews did confirm that the ISMS and QAP have been implemented and are effective at ensuring safety and quality performance for WCH.

3.6.2 ISMS Description Maintenance

The WCH ISMSD is effectively maintained and has evolved to incorporate the improvements and changes made since its initial issue in August 2005. Changes made to the WCH ISMSD are outlined in the Revision History section of WCH-4, *Integrated Environment, Safety, and Health Management System Description*. The description outlines the reasons for each revision, the date of the revision, and the revision initiator.

The WCH ISMSD is effectively revised, as necessary, to reflect programmatic changes and to ensure that a review is conducted to verify that systems, mechanisms, and processes accurately reflect the current WCH ISMS.

WCH has reviewed the ISMS Description Document and confirms that the information contained accurately reflects the WCH Integrated Safety Management System. Upon declaration of implementation of additional site wide programs, WCH will update WCH-4 to address the new programs and reference changes. As the new site wide programs do not introduce additional requirements and while WCH maintains compliance with federal and DOE regulations, the changes to the ISMS Description Document are editorial in nature. Because of this, no update to WCH-4 is needed at this time.

Future changes for WCH-4 include the following:

- Addition of the Hanford Site-wide Programs

- Update references to current DOE/contract requirements and WCH procedures and processes

- Addition of the updated organizational charts and the newly form Industrial Hygiene department under the SH&Q Director

- Updated references within the 29 CFR 851 Matrix.

3.7   SPECIAL SAFETY IMPROVEMENTS INITIATIVES AND HUMAN BEHAVIORS

The RCC continues to empower and provide mechanisms and information to all employees to improve not only their own safety but the safety of their co-workers. A comprehensive approach of bringing safety home was offered as part of the implementation of safety initiatives to help in the behavior modification process and to sustain the positive effectives observed in the WCH

safety culture. This was assessed throughout the year during self-assessments, management assessments, and verified during the WCH ISMS/VPP annual assessment.

3.7.1 Safety Campaigns

A comprehensive safety campaign and incentive program continued in FY11. Project Directors designated points of contact to coordinate and track safety campaigns resulting in a coordinated effort to facilitate safe behavior improvements. Sites reviewed the emerging issues, changing conditions, injuries/illnesses, and focus areas for their location to determine the campaigns. The LSIT personnel were heavily involved in the execution and successful completion of these campaigns. Senior management support was evident at milestone celebrations where employees were personally congratulated on their achievements and accomplishments.

WCH achieved 3 million safe work hours for the first time in the contract's history. In recognition of this accomplishment, WCH senior management conducted an all-hands safety meeting off-site with a motivational speaker to reinforce this tremendous achievement and to remind personnel that the journey was not finished. WCH subsequently achieved both 4 and 5 million safe work hours reinforcing the established safety culture that exists at WCH.

3.7.2 Healthy Living Campaign

The Fermi office location launched a healthy living campaign to raise the importance of good health and wellness in the reduction of soft tissue injuries and overall incidents. Criterion was provided to all personnel in this location with weekly, monthly, and end of the campaign acknowledgement of their participation. Criteria included use of handrails, water consumption, walking during the day, taking the stairs, healthy snacks, and flex and stretch exercises to name a few. Feedback from this campaign confirmed that healthy habits developed at work were communicated with the families at home.

As part of a comprehensive health program, WCH continued to offer health screenings to employees. Total Cholesterol and Glucose tests were offered along with additional information offered by the Hanford Site Occupational Medical Provider. Flu shots were also offered by the medical provider prior to the flu season to all personnel as well.

3.7.3 90-Day Safety Incentive Campaigns

Project site locations created and participated in short term incentive campaigns designed to maintain focus on safety, conduct of operations, electrical incidents, and environmental compromises. These campaigns used safety topics, daily plan-of-the-day meeting information, and pre-evolution meeting information to continue to reinforce the positive behavior during the conduct of work. Employees were recognized by their project senior management and the S&H Management staff for these achievements with a small safety token and a celebration.

3.7.4 Refocus Safety Meetings

After each holiday, WCH provided a special safety refocus presentation to all employees of WCH including subcontractors. These briefings used topical areas of concern depending upon the time of year, encouraged employees to look for changed conditions, and to put their minds back on safety as their first action upon returning to work. These presentations set the stage for a safe start after the holidays and provide the necessary reminder that the safety of the workers is the first concern and value for WCH.

Topics reviewed in the FY11 refocus presentations included:

- Post Winter Holiday Refocus highlighting Slips and Fall awareness, Effective work control and Planning, effective Hazard Analysis and Safety and Quality as Core Values

- President's Day refocus combining the topics of preparing for heat extremes, getting back to basics and focusing on safety

- Memorial Day Refocus presentation highlighting the rise of recent first aid and recordable incidents and exploring the behavior that may have played a role in these occurrences.

- July 4th Refocus on heat stress, lacerations and commitment to closure.

- Summer refocus with a baseball theme to reiterate employees to stay focused and to raise the awareness of a nearing milestone of 5 million safe hours. The refocus information concentrated on the safety, radiological, and conduct of operations issues that were self-identified in July and August and to ensure that employees re-engage in the safety program. Emphasis was given on being "our brother's keeper" to watch out for our own and others safety. All employees from the President down to the workers in the field are accountable and responsible for safety and play a part in the safe team and culture for WCH.

- Labor Day Safety Refocus with topics including the recognition of 5 million safe work hours, Brother's Keeper, new LSIT initiatives, and vehicle incidents.

These presentations have been provided to other DOE contractors both on the Hanford Site and across the complex as helpful, useful safety tools.

3.7.5   Heat Stress Initiative

To assist in the preparation for rising temperatures in 2011, S&H developed a preparation checklist to assist the sites in ensuring that the necessary equipment, PPE, and preparations were made prior to encountering hot working conditions. SH-1-3.27, Winterization and Summer Temperature Preparations was developed for this purpose. This information procedure provided checklists utilized by each site location to help identify areas that additional supplies and preparations were necessary.

Site locations, to include the Fermi office location, took the lead in the preparation and safe work practices to prevent any heat related illnesses in the summer of 2011 through safety awareness campaigns. Sites concentrated on the necessary acclimatization and water consumption needed to stay hydrated and work in hot and humid conditions. Considerations were given to the personal protective equipment that was used in the field to reduce the strain put upon employees. Anti-contamination clothing was evaluated with new equipment procured to provide the needed protection while reducing the heat stress on the employees. The Fermi location launched a summer campaign to include office workers in the awareness and need to ensure that adequate and appropriate fluids were consumed to reduce the risk to heat stress conditions and symptoms.

This successful campaign educated workers and afforded WCH with zero heat-related incidents for FY11.

3.7.6   Vehicle Safety Initiative

Throughout FY11, WCH continued to focus on vehicle incidents. Awareness information via the Weekly Roundup was provided to all employees along with Flash notices when an incident occurred involving a WCH or government owned or leased vehicle. These incidents were also reviewed with the field safety representatives, the S&H Manager, and the SH&Q Director. Improvement actions were flowed out to the project locations with lessons learned and reminders provided to employees at Plan of the Day and Pre-Ev meetings.

While efforts continued in FY11, WCH still experienced numerous vehicle incidents. Because of the continuation of these incidents, WCH has re-established the 360 magnet campaign in all project locations. This campaign was successful in FY09 and FY10. Additional improvement actions are being considered and will be part of the improvements implemented in FY12.

3.7.7   Lessons Learned Campaign

In an effort to review and learn from lessons learned, WCH launched the Groundhog Day campaign. This campaign reviewed the recent incidents and reoccurring issues and provided the information on these events. Personnel were asked to review the list of hazards and the corresponding lessons learned associated with that hazard. The expectation for employees was to talk about the lesson and discuss methods to prevent the incident. This campaign was successful in reviewing the incidents over the last 24 months and raised awareness and provided additional controls for hazards in the field.

3.7.8   Onsite Safety Training

Cross training and safety and health professional development is critical in order to support the closure of the WCH contract. As progress continues and sites are completed, the S&H staff will be reduced accordingly which necessitates the need for remaining staff to be able to accomplish many functions. In response to this reality, WCH S&H enlisted off-site training to assist in expanding the knowledge base of current personnel. Training was provided at the WCH facilities or in the Tri-Cities to allow for numerous personnel to attend this training. Onsite training also reduced the overall cost to WCH by eliminating the travel expenses for this training. Additionally, WCH provided this training, as space was available, to other Hanford site contractors allowing for additional cost savings to DOE.

Training provided included:
- OSHA Recordkeeping
- URS Safety By Design
- Safety Trained Supervisor
- Crosby Hoisting and Rigging Training
- Crane Safety Awareness Training
- Accident Investigation

4.0 WORKER SAFETY AND HEALTH PLAN (10 CFR 851)

On an annual basis, the WCH Worker Safety and Health Plan (WSHP), as described in the ISMSD, is evaluated and assessed to determine if all requirements of the plan have been effectively implemented and outlined. Additionally, WCH is required to provide DOE any updates to the WSHP for review and approval.

The WCH WSHP demonstrates the integration of the overall S&H program elements with ISMS. The scope of the program plan is applicable to all WCH personnel and facilities. The program does not apply to vendors, delivery persons, and others who do not have service contracts with DOE or who are not subcontractors to such contractors.

Documentation of the current WCH WSHP is within the WCH ISMSD and was reviewed and updated, as necessary, as a part of the annual WCH ISMS review. All functional areas of the WCH WSHP were reviewed to ensure valid and consistent implementation of DOE S&H requirements. Updates to the WCH WSHP were limited to reference updates. No programmatic changes to the WCH WSHP were identified during the WCH ISMS review.

As part of the WCH WSHP annual review, all of the citations and references in the PSD-8, *Washington Closure Hanford (WCH) 10 CFR 851 Compliance Matrix,* were reviewed and updated where appropriate. This document is referenced within the ISMSD, Appendix G, the WCH WSHP, and Subcontractor S&H Requirements document Exhibit G. No major revisions were identified during the citation and reference review and update.

5.0 VOLUNTARY PROTECTION PROGRAM

VPP is a voluntary program and demonstrates the commitment of all three parent companies included in WCH for excellence in safety and health. Every employee has a prime responsibility to carry out assigned tasks consistent with the WCH S&H policy to prevent accidents, reduce exposure, and reduce noncompliance. WCH has both embraced the VPP philosophy and extended its commitment to S&H excellence through the maintenance of the DOE VPP Star Status. The primary driving force behind the WCH commitment to the VPP process is the employees and supporting subcontractors who are WCH's primary asset.

WCH has effectively prepared and incorporated the tenets of VPP into the ISMS program. Employees have embraced the ownership and pride in the WCH S&H program by owning the WCH safety program and continue to demonstrate their active role in maintaining their safety and the safety of their co-workers. The tenets of VPP were included in the annual WCH ISMS review and have been incorporated into the tenet of Safety Culture. Official notification of DOE VPP Star designation was received in June 2009.

An initiative to reinforce the functioning Integrated Safety Management System with the elements of VPP was conducted through an awareness campaign. Employees were asked to

complete scratch cards with questions designed to be thought provoking and encourage improvement in safety. This campaign is a carry over from FY10 and concluded in early FY11.

WCH mentored organizations and sites throughout FY11. With a WCH employee as a member of the National VPPPA Board of Directors and one supporting the communications committee for the Region X VPPPA Chapter, WCH continuously provides innovations and support across the country. WCH continues to be the official mentor of the Stoller Legacy Sites contract for DOE who successfully submitted their DOE VPP application in FY11 and is awaiting their on-site review in FY12. Mentoring continued at the Region X VPPPA conference where WCH provided two presentations on Employee Involvement and Sustaining Star Status.

The WCH star was on the rise at the annual Hanford Site Safety Exposition. With the theme that "Safety is Not Alien to WCH" demonstrating shooting for the stars with safety questions geared toward educating the children, WCH was able to provide valuable safety information to the youth that attended this important event. With over 70,000 people attending the expo, WCH was able to provide valuable safety information to thousands of children in the Tri-Cities.

WCH was recognized for calendar year 2010 with the award of Star of Excellence. This award is given in recognition for excellence in maintaining safety and health rates significantly below the industry average, maintaining innovative and creative ways to engage all levels of the workforce, and mentoring sites both current and actively pursuing VPP. This award is the highest honor that DOE awards its contractors on an annual basis. WCH is in an elite group of contractors who have earned the star of excellence award and are considered one of the best of the best in DOE. Additionally, a WCH was given the honor of receiving the DOE VPP Champion's Award. This is the highest individual award provided by DOE VPP Headquarters recognizing this employee for outstanding leadership, mentoring, innovation, and assistance to the DOE VPP Headquarters team on assessments and reviews.

The culture is monitored on a periodic basis throughout the year and includes all levels of employees. Improvement objectives for FY11 included assessments of programs that implement the tenets of VPP and outlined specific actions and activities accomplished to maintain the DOE VPP Star Status. The annual WCH ISMS program review, the management assessment conducted by WCH, and independent assessments fulfill the VPP criteria for an annual S&H Program assessment and ensures that each of the elements of VPP are reviewed and assessed to facilitate continuous improvement.

6.0 CONCLUSIONS

The WCH annual ISMS effectiveness review evaluated WCH procedures, policies, and manuals and the mechanisms by which full implementation are implemented. It was determined that the WCH ISMS is effectively implemented and integrates employee participation from WCH senior management through to the contract workers in the safety process and declares an effective and implemented Integrated Safety Management System. The current safety management programs implement and satisfy the DOE requirements for ISMS and adequately manage the work safely. Reference documents validating mechanisms and requirements documents are detailed and listed within the ISMSD and the compliance matrix.

7.0 REFERENCES

10 CFR 830, "Nuclear Safety Management," *Code of Federal Regulations,* as amended.

10 CFR 851, "Worker Safety and Health Program," *Code of Federal Regulations,* as amended.

29 CFR 1926, "Safety and Health Regulations for Construction," *Code of Federal Regulations,* as amended.

48 CFR 970.5223, "Integration of Environment, Safety, and Health into Work Planning and Execution," *Code of Federal Regulations*, as amended.

ACGIH, 2009, *TLVs and BEIs Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*, American Conference of Governmental Industrial Hygienists, Cincinnati, Ohio.

BSC-1, *Business Services and Communications,* Washington Closure Hanford, Richland, Washington.

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DOE-0336, 2008, *Hanford Site Lockout/Tagout*, U.S. Department of Energy, Washington D.C.

DOE G 414.1-3, *Suspect/Counterfeit Items Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1B, Quality Assurance*, as amended, U.S. Department of Energy, Washington D.C.

DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, as amended, U.S. Department of Energy, Washington D.C.

DOE M 440.1, *DOE Explosives Safety Manual*, Rev. 8, as amended, U.S. Department of Energy, Washington D.C.

DOE O 210.2, *DOE Corporate Operating Experience Program*, as amended, U.S. Department of Energy, Washington D.C.

DOE O 226.1A, *Implementation of Department of Energy Oversight Policy*, as amended, U.S. Department of Energy, Washington D.C.

DOE O 414.1, *Quality Assurance*, as amended, U.S. Department of Energy, Washington D.C.

DOE O 420.1B, *Facility Safety*, as amended, U.S. Department of Energy, Washington D.C.

DOE O 430.2B, *Departmental Energy, Renewable Energy and Transportation Management*, as amended, U.S. Department of Energy, Washington D.C.

DOE O 433.1, *Maintenance Management Program for DOE Nuclear Facilities*, as amended, U.S. Department of Energy, Washington D.C.

DOE O 450.1, *Environmental Protection Program*, as amended, U.S. Department of Energy, Washington D.C.

DOE O 5480.19, *Conduct of Operations Requirements for DOE Facilities*, as amended, U.S. Department of Energy, Washington, D.C.

DOE O 5480.20, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities,* as amended, U.S. Department of Energy, Washington, D.C.

DOE P 450.4, *Safety Management System Policy*, as amended, U.S. Department of Energy, Washington D.C.

DOE/RL-92-36, 2008, *Hanford Site Hoisting and Rigging Manual*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Letter 09-OOD-0092, 2009, "Contract No. DE-AC06-05RL14655 – RL Review of Washington Closure Hanford LLC Corrective Action Plan for Surveillance Report S-09-00D-RCP-004, Heat Stress," external letter to M. N. Brosee, Washington Closure Hanford, from J. J. Short, U.S. Department of Energy, Richland Operations Office, Richland, Washington, October 13.

PAS-1, *Project Activities and Support,* Washington Closure Hanford, Richland, Washington.

PAS-2, *Integrated Work Control Program*, Washington Closure Hanford, Richland, Washington.

PSD-7, *WCH Environmental Compliance System,* Washington Closure Hanford, Richland, Washington.

PSD-8, *Washington Closure Hanford (WCH) 10 CFR 851 Compliance Matrix*, Washington Closure Hanford, Richland, Washington.

QA-1, 2008, *Quality Assurance*, Washington Closure Hanford, Richland, Washington.

SH-1, *Safety and Health,* Washington Closure Hanford, Richland, Washington.

SH-100, *Industrial Hygiene Work Procedures,* Washington Closure Hanford, Richland, Washington.

WCH-4, 2010, *Integrated Safety and Management System Description*, Rev. 8, Washington Closure Hanford, Richland, Washington.

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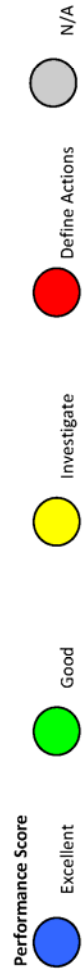WCH-307, 2011, *Assessment Program Plan Document*, Rev. 4, Washington Closure Hanford, Richland, Washington.

APPENDIX A

EM CORPORATE QA PERFORMANCE METRICS

APPENDIX A
EM CORPORATE QA PERFORMANCE METRICS

EM Corporate QA Performance Metrics
Quality Program Criteria Summary
October 2011

Site: _____ Washington Closure Hanford _____

Period: ___ FY11

Critical Decision				Criterion		Score	
1	2	3	4	10 CFR 830.122		Previous Period	Current Period
				Management	1. Program		🟢
					2. Personnel Training and Qualification		🔵
					3. Quality Improvement		🟢
					4. Documents and Records		🟢
				Performance	5. Work Processes		🟡
					6. Design		🟢
					7. Procurement		🟢
					8. Inspection & Acceptance Testing		🟢
				Assessment	9. Management Assessment		🟢
					10. Independent Assessment		🟢
				Supplements	Suspect /Counterfeit Items		🟢
					Software QA		🟢

Performance Score

🔵 Excellent 🟢 Good 🟡 Investigate 🔴 Define Actions ⚪ N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

	Criterion	Requirements
1	Program	1) Establish an organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing the work. 2) Establish management processes, including planning, scheduling, and providing resources for the work.
2	Personnel Training & Qualification	1) Train and qualify personnel to be capable of performing their assigned work. 2) Provide continuing training to personnel to maintain their job proficiency.
3	Quality Improvement	1) Establish and implement processes to detect and prevent quality problems. 2) Identify, control, and correct items, services, and processes that do not meet established requirements. 3) Identify the causes of problems and work to prevent recurrence as a part of correcting the problem. 4) Review item characteristics, process implementation, and other quality-related information to identify items, services, and processes needing improvement.
4	Documents and Records	1) Prepare, review, approve, issue, use, and revise documents to prescribe processes, specify requirements, or establish design. 2) Specify, prepare, review, approve, and maintain records.
5	Work Processes	1) Perform work consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements, using approved instructions, procedures, or other appropriate means. 2) Identify and control items to ensure their proper use. 3) Maintain items to prevent their damage, loss, or deterioration. 4) Calibrate and maintain equipment used for process monitoring or data collection. 5) Verify or validate work before approval and implementation of the design.
6	Design	1) Design items and processes using sound engineering/scientific principles and appropriate standards. 2) Incorporate applicable requirements and design bases in design work and design changes. 3) Identify and control design interfaces. 4) Verify or validate the adequacy of design products using individuals or groups other than those who performed the work.
7	Procurement	1) Procure items and services that meet established requirements and perform as specified. 2) Evaluate and select prospective suppliers on the basis of specified criteria. 3) Establish and implement processes to ensure that approved suppliers continue to provide acceptable items and services.
8	Inspection & Acceptance Testing	1) Inspect and test specified items, services, and processes using established acceptance and performance criteria. 2) Calibrate and maintain equipment used for inspections and tests.
9	Management Assessment	Ensure managers assess their management processes and identify and correct problems that hinder the organization from achieving its objectives.
10	Independent Assessment	1) Plan and conduct independent assessments to measure item and service quality, to measure the adequacy of work performance, and to promote improvement. 2) Establish sufficient authority, and freedom from line management, for the group performing independent assessments. 3) Ensure persons who perform independent assessments are technically qualified and knowledgeable in the areas to be assessed.
	Suspect/ Counterfeit Items	An S/CI prevention process must be developed and implemented as a part of the organization's quality assurance program (QAP) and commensurate with the facility/activity hazards and mission impact. The QAP must be applied to identifying and analyzing S/CI's, removing them, and preventing S/CI's from being supplied to DOE/NNSA and its contractors.
	Software Quality Assurance	Safety software quality requirements are necessary to ensure that DOE/NNSA safety software in nuclear facilities performs its intended specific safety functions in relation to structures, systems, or components (SSCs) and that the classification, design, and analysis associated with nuclear facility operations is correct
	Corrective Action	To prescribe process requirements and responsibilities for DOE line managers to perform corrective actions that effectively resolve safety issues.

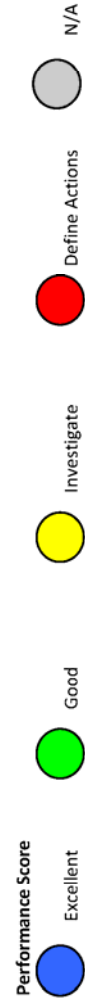**Performance Score**

Excellent   Good   Investigate   Define Actions   N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

MANAGEMENT/ PROGRAM [10 CFR 830 Criterion #1]				SCORE
ASME NQA-1, 2004 1. Organization 2. Quality Assurance Program	**Supported ISM Core Functions/Guiding Principles** Define Work Perform Work within Controls Clear Roles and Responsibilities Identify/Analyze Hazards Feedback/Continuous Improvement Competence Commensurate with Responsibilities Develop/Implement Controls Line Management Responsibility			🟢

Lines of Inquiry	Response		Score
	Basis	Supporting Documents	

Lines of Inquiry	Basis	Supporting Documents	Score
A. The quality management system (QMS) defines and documents the established organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing the work including overall expectations for effective implementation of the quality assurance program.	A. The QAPD directly addresses organizational structure for WCH and functional responsibilities for QA program specific implementation. The QAPD defers to the Project Management Plan for general functional responsibilities, levels of authority, and interfaces. The QMS is compliant with DOE 414.1C, NQA-1 2004 with addendums through 2007, and with EM-QA-001. The QAPD was revised to address DOE directed changes regarding weaknesses in the areas of Records and Maintenance.	EM-64 Audit of QA program, EM-AUDIT-2008-018 (January 2009) MA-2009-019 – Quality Assurance Program Health Assessment (September 2009)	🟢
B. The QMS describes a quality assurance organization that has sufficient resources and qualifications to perform its functions.	B. The QAPD identifies the QA organization and describes the roles and responsibilities of the QA organization. Specific training requirements for QA Inspection and Assessment personnel are addressed. C. The QAPD describes the grading process and how it is implemented at WCH. Due to the closure contract nature of WCH, a tiered or multi-level approach has not been developed at WCH (no QA levels). However, key processes that benefit from grading such as training, work control, procurement, and assessments have been developed reflecting a varied approach based on risk and consequences to ensure hazards associated with work activities are appropriately addressed. These processes are subject to QA review and approval and also to routine QA oversight.	MA-2010-009 – Quality Assurance Program Health Assessment (August 2010)	🔵
C. The QMS defines a process for grading the application of requirements and this process adequately addresses hazards and mission.	Implementation of organization and graded approach is deemed effective based on completion of the EM-64 Quality Audit and Annual QA Declaration Assessment. Overall grade of good was selected due to some noted weaknesses in the program, and challenges with staffing and the implementation of key processes such as Procurement, Quality Improvement, and Assessments.		🟢

Performance Score

🔵 Excellent   🟢 Good   🟡 Investigate   🔴 Define Actions   ⚪ N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

MANAGEMENT/ PERSONNEL TRAINING AND QUALIFICATION [10 CFR 830 Criterion #2]

ASME NQA-1, 2004
2. Quality Assurance Program

Supported ISM Core Functions/Guiding Principles

Define Work	Perform Work within Controls	Clear Roles and Responsibilities
Identify/Analyze Hazards	Feedback/Continuous Improvement	Competence Commensurate with Responsibilities
Develop/Implement Controls	Line Management Responsibility	

Lines of Inquiry	Response — Basis	Supporting Documents	Score
A. The methodology is well described for establishing requirements to indoctrinate, train, qualify and maintain proficiency of personnel performing or managing activities affecting quality.	A. The QAPD describes indoctrination, training and qualification of personnel performing or managing activities affecting quality. Project has a Training Implementation Matrix that demonstrated implementation of DOE O 426.2 supported by Business Services procedures for the establishment of training requirements and records management.	Independent Assessment of Training Program QA&S-2010-004 (November 2010)	(blue/green)
B. Adequate resources have been identified to support the selection, training, and qualification of personnel conducting work.	B. Human Resources and Training organization provide the infrastructure for obtaining qualified personnel and tracking completion of assigned training. A mix of internal subject matter expert led training and external resources are utilized to provide training and qualification of personnel conducting work. Job assignments are controlled via the first line supervisor who is trained and qualified.	Surveillances: Overview of Auditing Methods for Lead Auditors Training at HAMMER QA&S-2011-S034 (May 2011)	(blue/green)
C. Requirements are defined and implemented for the qualification and/or certification of personnel in the various functional areas (e.g., audit personnel, subject matter experts, inspection and test personnel, welders, etc.).	C. Each employee has a general Training Position Description that identifies training requirements and a specific Training Assignment Tool that identifies any unique needs based on specific assignments. Specific areas such as assessors, inspectors, welders, have a qualification/certification process to ensure they are appropriately trained and qualified.	Field Work Supervisor (FWS) Identification and IWCP Training QA&S-2011-S044 (August 2011)	(green)
	Implementation has improved based on results of a Training Program assessment, supplemented with QA verifications of training processes and field implementation. Programmatic weaknesses previously identified by management assessments were corrected, and the approach to training strengthened. The training program is demonstrating increasing maturity; while it is noted that opportunities for improvement exist, such as training of field supervisory personnel. The Hammer Training facility continues to provide consistent, specialized training for workers exposed to industrial, radiological, and chemical hazards. General process training continues to be provided by Subject Matter Experts, supplemented by the use of industry training providers.		

Performance Score

Excellent (blue)	Good (green)	Investigate (yellow)	Define Actions (red)	N/A (grey)

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

MANAGEMENT/ QUALITY IMPROVEMENT [10 CFR 830 Criterion #3] (2 Pages)			SCORE
ASME NQA-1, 2004 2. Quality Assurance Program 15. Control of Nonconforming Items	16. Corrective Action	**Supported ISM Core Functions/Guiding Principles** Feedback/Continuous Improvement Operations Authorization	🟢
Lines of Inquiry	**Response**		
	Basis	Supporting Documents	Score
A The organization has established, implemented, and documented processes to detect and prevent quality problems such as conditions adverse to quality and nonconforming items.	A. WCH's corrective action management process describes the Issue Form process and is integrated with nonconformance processes. Overall health is monitored via indicators which include leading indicators on health of program. Additionally, key project processes have performance metrics to identify adverse trends. These key metrics are presented to senior management on a monthly basis by the functional owners. Improvement from green to blue due to the decrease in the amount of time it takes to perform analysis of issues, and due to the greatly reduced backlog of issues in verification status.	RL Surveillance on Corrective Action Effectiveness S-09-AMSE-WCH-QA-001 (August 2009) Independent Assessment of WCH Quality Improvement Program QA&S-2009-007 (April 2010)	🔵
B The QMS describes methods for addressing cause, extent, and remedial and preventative corrective actions for conditions adverse to quality to prevent recurrence.	B. The QAPD addresses cause, remedial and preventive actions. The IF process addresses extent of condition. The process also allows for improvement opportunities not tied to deficiencies. While the program and process is in place, past assessments identified a need to improve the documentation of analysis, alignment of corrective actions to cause code, and implementation of extent of condition. WCH's process for evaluating issue extent of condition was compared against DOE expectations, revealing WCH's approach is in alignment and the process is sound. However, follow up surveillances performed by WCH identified implementation of the process continues to be a challenge, and as such, awareness and verification efforts have been improved.	RL Surveillance on Feedback, & Continuous Improvement Corrective Action/Issue Management S-10-OOD-RCP-001 (April 2010)	🟡
C A process is identified to review process implementation, item characteristics, and other quality-related information to effect continuous improvement to the QMP.	C. Procurement, Receipt Inspection and NCR processes address the review of item characteristics obtained for use at WCH. Deficiencies identified are entered into the corrective action system for tracking of resolution. Process implementation issues identified by event/condition or assessments are also entered into the CAMs process. Trending processes and metrics are used to review quality data.		🟢

Performance Score

🔵 Excellent 🟢 Good 🟡 Investigate 🔴 Define Actions ⚪ N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

MANAGEMENT/ QUALITY IMPROVEMENT [10 CFR 830 Criterion #3] (2 Pages)			SCORE
Lines of Inquiry	Response		
	Basis	Supporting Documents	Score
D Controls provide for identification, documentation, evaluation, notification to affected organizations, segregation when practical, and disposition of nonconforming items.	D. NCR process addresses identification, documentation, evaluation, segregation when practical, and disposition of nonconforming items, and for notification to affected organizations. Nonconforming issues are entered into the CAMs process for tracking/trending purposes. E. Performance Indicators are established to monitor usage, significance levels, timeliness, and overall health of the CAMs process. A subset of these performance indicators are presented to senior management on a monthly basis ensuring the continued use of the system. Past assessments challenged the overall effectiveness of implementation which were not supported by the Performance Indicators. Enhancements in trend analysis resulting in a more thorough monthly trend analysis report, coupled with the recent implementation of a WCH health report, improved the score from yellow to green.	WCH Surveillance on Analysis and Corrective Action Planning of Adverse Conditions Approved in September and October 2010 QA&S-2010-S059 (December 2010)	(blue)
E Performance analysis system monitors the health of the quality improvement element and provides feedback to the affected and related organizational entities.	F. NCR, CAMs, and Trending programs are in place. Metrics are used to monitor the health of the CAMs process. Trending information and recommendations are presented to senior management.	Management Assessment of Contractor Assurance System MA-2011-005 (March 2011)	(green)
F A nonconformance and corrective action tracking and trending program is in place and effective.	Overall, Quality Improvement is deemed to be good and this area's score has improved from yellow to green. Program health is deemed acceptable based on results of an Independent Assessment of the WCH Quality Improvement Program (April 2010), a Management Assessment of the Contractor Assurance System (March 2011), monthly metrics indicating healthy management of issues, and QA verification of process alignment with DOE expectations, and continued surveillance of process implementation. Periodic assessments by DOE/RL reveal marked improvements in the management and implementation of the CAMs process.	WCH Surveillance on Analysis and Corrective Action Planning of Adverse Conditions Approved in January and February 2011 QA&S-2011-S027 (April 2011)	(yellow)

Performance Score

Excellent (blue)   Good (green)   Investigate (yellow)   Define Actions (red)   N/A (grey)

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

MANAGEMENT/ DOCUMENTS AND RECORDS [10 CFR 830 Criterion #4]	SCORE

ASME NQA-1, 2004	Supported ISM Core Functions/Guiding Principles	
5. Instructions, Procedures, and Drawings 6. Document Control 17. Quality Assurance Records	Define Work Identify/Analyze Hazards Develop/Implement Controls	Perform Work within Controls Balanced Priorities Identification of Safety Standards	Hazard Controls Tailored to Work Operations Authorization

Lines of Inquiry	Response		Score
	Basis	Supporting Documents	

Functions and activities affecting quality and services are effectively described and performed in approved, documented, and controlled instructions, procedures, or drawings that include or reference appropriate quantitative or qualitative acceptance criteria for determining that prescribed activities have been satisfactorily accomplished.

A Quality assurance records are traceable to associated items and completed work activities from applicable documents, such as design specifications, procurement documents, test procedures, and operational procedures; properly identified, classified, and specified; authenticated, controlled, and maintained; and their final disposition is specified.

B Documents have been developed and effectively implemented that prescribe processes to oversee contractors and suppliers.

C The QMS describes how procedures are prepared, reviewed, approved, issued, used, and revised to prescribe processes, specify requirements, or establish design.

D

Response Basis:

A. All requirements contained within the QAPD have been verified to be implemented in plans, policies, processes, procedures and appropriately address acceptance criteria/expectations for performance.

B. Records Management Plan appropriately addresses, and implements the controls necessary to ensure that records are traceable to associated items and completed work activities. The record inventory and disposition schedule (RIDS) is in place and is being appropriately implemented. Areas for improvement exist as the last Independent Assessment identified some weaknesses in implementation of the document control/records management process, and adherence to procedural requirements was reinforced. Additionally, several Industrial Hygiene record types have not been submitted as records to Document Control. Positive indicators include consistent utilization of current form versions, and continuity of information and accessibility of records as the electronic document management system was upgraded. The QAPD was revised to include, or clearly exclude, some Records Management requirements associated with NQA-1 2007 addendum that were not originally addressed. This attribute is more appropriately captured under element 7, procurement.

C. Four documents address processes for overseeing contractors and suppliers. Quality Program requirements document identifies applicable elements that are flowed down. Supplier evaluation documents the in-house review of suppliers program. Surveillance/assessment processes address monitoring of supplier performance. Subcontractor deficiency reports address specific issues that the supplier must provide analysis and corrective action to address performance weaknesses. A recent DOE/RL assessment positively noted that WCH has developed systematic approaches to ensure subcontractors meet quality requirements.

D. The QAPD establishes controls for the generation of procedures and the implementation matrix identifies those procedures that implement the requirements for the preparation, review, approval, issuance, and revision of procedures. The last Independent Assessment identified weaknesses in implementation of the procedure revision process, and adherence to procedural requirements was reinforced; therefore blue was downgraded to green.

Overall, implementation is deemed acceptable based on results of the referenced assessments and surveillances.

Supporting Documents:

RL Surveillance of Procurement and Records Management Activities S-10-AMSE-WCH-QA-002 (May 2010)

Management Assessment on Document Control MA-2010-011 (September 2010)

Independent Assessment Document Control and Records Management QA&S-2011-002 (March 2011)

RL Surveillance on WCH Project Quality Assurance Performance Surveillances S-11-AMSE-WCH-001 (March 2011)

WCH Surveillance on Use of Current Version of Forms QA&S-2011-S027 (May 2011)

Performance Score

Excellent Good Investigate Define Actions N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

PERFORMANCE/ WORK PROCESSES [10 CFR 830 Criterion #5] (2 Pages)		SCORE 🟡
ASME NQA-1, 2004	**Supported ISM Core Functions/Guiding Principles**	
5. Instructions, Procedures, & Drawings 8. Identification & Control of Items 9. Control of Special Processes 12. Control of Measuring & Test Equipment 13. Handling, Storage, & Shipping 14. Inspection, Test, & Operating Status Subpart 2.7 SQA	Define Work Identify/Analyze Hazards Develop/Implement Controls Perform Work within Controls Balanced Priorities Identification of Safety Standards Hazard Controls Tailored to Work Operations Authorization	

Lines of Inquiry	Response		
	Basis	Supporting Documents	Score
Core functions and guiding principles of the DOE Integrated Safety Management System are addressed consistent with DOE O 450.1, *Environmental Protection Program*, DOE P 450.4, *Safety Management System Policy*, and applicable chapters in DOE O 5480.19, *Conduct of Operations Requirements for DOE Facilities*, such that work is performed consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements	A. WCH-4, Integrated Environment, Safety, and Health Management System Description addresses the core functions and guiding principles of DOE O 450.1, DOE P 450.4 and applicable chapters in DOE O 422.1 such that work is performed consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements using approved instructions, procedures, or other appropriate means. Although significant efforts have been made to improve the implementation of the work control program and updated to reflect the new URS work control standards, implementation continues to fall short of expectations. B. The QAPD incorporates the key attributes of DOE 414.1C for control of suspect counterfeit items and DOE G 414.1-3 was utilized in the development of processes to prevent the introduction and use of suspect counterfeit items. C. Material control processes are established to provide protection of equipment to prevent damage and loss. The Maintenance Implementation Plan addresses DOE O 433.1 requirements and the approach to inspect and preserve facilities. Few facilities are under a maintenance program due to the general nature of WCH activities where we are focused on field remediation and demolition activities.	QA&S-2009-003, Special Processes, Welding (July 2009) Type B Accident Investigation 336 Fall Event (August 2009) Management Assessment – Integrated Work Control MA-2009-024 (October 2009)	🟡
The QMS provides methods to identify and control items including S/CI, to ensure their proper use consistent with DOE G 414.1-3 and it addresses suspect counterfeit items.			🟢
The method to maintain items to prevent their damage, loss, or deterioration is adequately described. This method addresses the requirements (e.g., DOE O 433.1, *Maintenance Management Program for DOE Nuclear Facilities*).			🟢

Performance Score

🔵 Excellent 🟢 Good 🟡 Investigate 🔴 Define Actions ⚪ N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

PERFORMANCE/WORK PROCESSES [10 CFR 830 Criterion #5] (2 Pages)			
Lines of Inquiry	Response		Score
	Basis	Supporting Documents	
D	Special processes that control or verify quality, such as those used in welding, heat treating, and nondestructive examination, are performed by qualified personnel using approved procedures or instructions compliant with the requirements of applicable codes and standards, including acceptance criteria.	D. Requirements for special processes that control or verify quality, such as those used in welding, heat treating, and nondestructive examination, are described in the QAPD. WCH only performs non-consequential/ non-structural welding – special processes warranting controls are subcontracted. Requirements flow-down and verification activities are performed to ensure these special processes are performed by qualified personnel using approved procedures or instructions compliant with the requirements of applicable codes and standards, including acceptance criteria for the process.	Independent Assessment of Measuring and Test Equipment QA&S 2009-004 (Sept 2009) Mid Point Effectiveness Assessment Corrective Actions associated with Type B Accident Investigation Building 336 Fall Event MA-2009-28-SH&Q (Dec. 2009)	🟢
E	Tools, gauges, instruments, and other measuring and test equipment used for activities affecting quality are controlled and calibrated at specific periods, adjusted and maintained to required accuracy limits.	E. WCH has a tool crib and associated procedures in place to ensure that tools, gauges, instruments and other measuring and test equipment are controlled and calibrated at specific periods, adjusted and maintained to required accuracy limits. F. Items identified as non-conforming are tagged and controlled to ensure resolution prior to use. Testing activities are performed by subcontractors when utilized with WCH oversight. Inspection and testing activities are documented to ensure traceability. In process inspections/tests, when required, are incorporated into work instructions with controls to ensure control of items that have not passed such that they are not inadvertently installed, used, or operated.	End Point Effectiveness Assessment Corrective Actions associated with Type B Accident Investigation Building 336 Fall Event MA-2010-003 (May 2010)	🟢
F	Status of inspection and test activities is identified either on the items or in documents traceable to the items where it is necessary to ensure that required inspections and tests are performed and to ensure that items which have not passed the required inspections and tests are not inadvertently installed, used, or operated.	Implementation is deemed at risk due to continued challenges associated with the adequacy of implementation of the IWCP. Work Process, with the exception of IWCP, is deemed acceptable.	Management Assessment of Work Planning and Control MA-2010-018 (May 2011) Independent Assessment of Work Processes – Identification and Control of Items QA&S-2011-003 (June 2011)	🟢

Performance Score

🔵 Excellent   🟢 Good   🟡 Investigate   🔴 Define Actions   ⚪ N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

PERFORMANCE/ DESIGN [10 CFR 830 Criterion #6] (2 Pages)		SCORE

ASME NQA-1, 2004	Supported ISM Core Functions/Guiding Principles		
3. Design Control Subpart 2.7 SQA	Define Work Identify/Analyze Hazards Develop/Implement Controls	Perform Work within Controls Balanced Priorities Identification of Safety Standards	Hazard Controls Tailored to Work Operations Authorization

Lines of Inquiry	Response		
	Basis		Supporting Documents
The QMS describes a process for design verification and/or validation for design products including software related to safety systems, before approval and implementation of the design. The process requires the use of individuals or groups other than those who performed the work.	A.	Engineering processes are in place to ensure appropriate control of design inputs, process, analyses, interface control, verification, use of computer programs in support of design, change control, and documentation and records. At the closure project, typical design elements are applied to the project definition for remediation of the area. Design input would be characterization data of the area to remediate, uncertainties, end state expectations, etc.	DOE/RL Safety & Engineering Sub-Tier Contractor Oversight Surveillance S-10-SED-WCH-030 (Sept. 2010)
Design items and processes use sound engineering/scientific principles and appropriate Standards and Orders (i.e., DOE O 420.1B, *Facility Safety*). The process addresses change control (changes to design inputs, final designs, field changes and temporary and permanent modifications to operating facilities).	B.	Design items and processes use sound engineering/scientific principles and appropriate Standards and Orders. The process addresses change control throughout the design life cycle.	Management Assessment on Criticality Safety Program MA-2010-013 (Sept. 2010) Management Assessment on Design Process & Control, MA-2011-006 (April 2011)
Design interfaces are identified and controlled, within the design authority and externally with customers and suppliers, including subcontractors.	C.	Physical and functional design interfaces are identified, documented, and controlled. Administrative interfaces, which include authorities, responsibilities, and lines of communication between project team members, are defined in sufficient detail to identify and establish relationships and authorities of the team members.	Independent Assessment on Identification & Control of Items QA&S-2011-003 (June 2011)

Performance Score

- Excellent
- Good
- Investigate
- Define Actions
- N/A

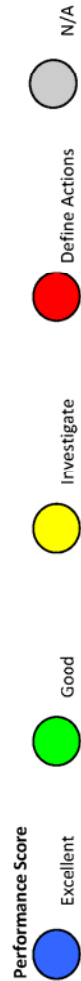**EM Corporate QA Performance Metrics**
10 CFR 830.122 & DOE O 414.1C

PERFORMANCE/ DESIGN [10 CFR 830 Criterion #6] (2 Pages)			SCORE
Lines of Inquiry	Response		Score
	Basis	Supporting Documents	
D. Design verification evaluations are tailored as a function of importance to safety, complexity of the design, degree of standardization, state-of-the-art, and similarity with previously proved designs.	D. The extent of the design verification is commensurate with the design's complexity: to include it's importance to safety and the environment, degree of standardization, state-of-the-art, and similarity with previously proved designs E. System Engineering and Configuration Management processes are in place and implemented at WCH. Challenges in this area are primarily with subcontractor work scopes to maintain configuration management of temporary infrastructure systems such as lighting and trailers. Recent assessments (internal and external) continue to identify challenges with implementation of Configuration Management.	Surveillances: Design Change Control and Implementation QA&S-2010-S037 (July 2010) D4-100N/ISS Construction Compliance to Design QA&S-2011-S005 (January 2011)	🟢 (Excellent/Good)
E. Procedures implementing configuration management requirements are established and documented at the earliest practical time prior to facility operation, including authority and responsibilities of the organizations whose functions affect the configuration of the facility, such as operations, design, maintenance, construction, licensing, and procurement.	F. Use of computer programs in support of design is specifically addressed as part of the QAPD and engineering implementing processes. General software controls and safety software controls are addressed in the QAPD and implemented via Information Technology plans, policies, and processes. Implementation is deemed acceptable based on results of Management Assessments on Criticality Safety and Design Process and Control (April/June 2011), DOE RL Safety & Engineering assessment of subcontractor processes (Sept 2010), QA Independent Assessment of Identification & Control of Items (June 2011), and QA verifications of subcontractor design change control and compliance to design (July 2010/Jan 2011).		🟡 (Good/Investigate)
F. Software design requirements are identified and documented and their selection reviewed and approved (operating system, function, interfaces, performance requirements, installation considerations, design inputs, and any design constraints of the computer program).			🟢 (Excellent/Good)

Performance Score

🔵 Excellent 🟢 Good 🟡 Investigate 🔴 Define Actions ⚪ N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

PERFORMANCE/ PROCUREMENT [10 CFR 830 Criterion #7]		SCORE

ASME NQA-1, 2004

Supported ISM Core Functions/Guiding Principles

Define Work	Perform Work within Controls	Hazard Controls Tailored to Work
Identify/Analyze Hazards	Balanced Priorities	Operations Authorization
Develop/Implement Controls	Identification of Safety Standards	

4. Procurement Document Control
7. Control of Purchased Items and Services
Subpart 2.7 SQA

Response

Lines of Inquiry	Basis	Supporting Documents	Score
A. The requirements for the procurement of items and services are established. The requirements include performance and quality specifications provided by the design authority and quality organization. The requirements ensure that procured items and services will meet established requirements and perform as expected.	A. Engineering processes describe the request for services and items and does establish the expectation to identify requirements for performance and quality specifications. Procurement processes provide the mechanisms to appropriately flowdown requirements to prospective suppliers. A process change was implemented in the identification and flow-down of quality expectations to service providers, with positive results. B. The procurement process ensures the evaluation of bids and program requirements prior to award. The WCH QA strategy of managing at risk procurements by maintaining strong, active engagement in subcontractor activities was determined by EM to resolve the prior conflict between NQA-1 evaluations and the small business contract desires of DOE. C. Receipt inspection and oversight processes ensure satisfactory performance. Graded application is used such that construction activities have more rigor associated with independent verification of quality attributes than demolition related activities. Some previous EM identified weaknesses in the clarity by which expectations are implemented were addressed. Due to increased clarity in supplier performance expectations, coupled with demonstrated process and implementation improvements in supplier assurance, which have been independently verified, these areas are upgraded to green. Implementation is deemed acceptable based on results of an Independent Assessment of Procurement (March 2010), DOE RL assessments of WCH Procurement Process and WCH Project QA Performance Review, and QA verification of SSC compliance (Jan 2010). Procurement Roles and Responsibility associated with management review was recently changes and a follow-up assessment will be performed.	Independent Assessment of Procurement, QA&S-2009-008 (March 2010) DOE RL Assessment WCH Procurement Process S-09-AMSE-WCH-PRO-002 (November 2009) DOE RL Assessment WCH Project QA Performance Review S-11-AMSE-WCH-001 (March 2011) Surveillance: Overview of Procurement for the D4 VSS System (SS/SC) QA&S-2010-S006 (January 2010)	
B. The system to evaluate and select prospective suppliers based on specified criteria performs satisfactorily.			
C. Processes are established and implemented to ensure that approved suppliers continue to provide acceptable items and services. Application is graded to ensure safety-related items and mission critical items are subject to more rigorous methods (e.g., inspection and testing at the manufacturer and upon receipt).			

Performance Score
Excellent · Good · Investigate · Define Actions · N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

PERFORMANCE /INSPECTION AND ACCEPTANCE TESTING [10 CFR 830 Criterion #8]		SCORE 🟢
ASME NQA-1, 2004	**Supported ISM Core Functions/Guiding Principles**	
8. Identification & Control of Items 10. Inspection 11. Test Control	Feedback/Continuous Improvement Operations Authorization	
12. Control of Measuring and Test Equipment Subpart 2.7 SQA		

Response

Basis	Supporting Documents	Score
A. Operating facilities have inspection processes established with acceptance criteria identified. Items and services have acceptance criteria identified in procurement documents and are verified by receipt inspections (items) or review/acceptance of deliverables (services).	Independent Assessment Inspection and Acceptance Testing QA&S-2009-001 (March 2009)	🟢
B. Purchase orders, inspection plans, and submittals are documented and are performing satisfactorily.		
C. WCH has a tool crib and associated procedures in place to ensure that tools, gauges, instruments and other measuring and test equipment are controlled and calibrated at specific periods, adjusted and maintained to required accuracy limits. Where inspection or testing is performed as part of the subcontractor's scope, process requirements for control of inspection and test equipment is flowed down and verified.	Independent Assessment of Measuring and Test Equipment QA&S 2009-004 (Sept 2009)	
Previous Independent Assessments on work control implementation and routine surveillances by QA&S on M&TE controls, receipt inspections, and S/CI implementation support overall determination of acceptable implementation. Additionally, an IA on Inspection and Acceptance testing was performed, with a focus on the cell construction efforts, identified satisfactory implementation.		

Lines of Inquiry

		Score
A	Inspections and tests are specified for items, services, and processes. Acceptance and performance criteria are established and used.	🟢
B	The system for documenting the results of inspections and tests performs satisfactorily.	🟢
C	Inspection and test equipment is controlled by a process to ensure it is calibrated and maintained.	🟢

Performance Score

Excellent (blue) • Good (green) • Investigate (yellow) • Define Actions (red) • N/A (gray)

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

ASSESSMENT/ MANAGEMENT ASSESSMENT [10 CFR 830 Criterion #9]	SCORE 🟢
ASME NQA-1, 2004 2. Quality Assurance Program 18. Audits	**Supported ISM Core Functions/Guiding Principles** Feedback/Continuous Improvement Operations Authorization

Response

Lines of Inquiry	Basis	Supporting Documents	Score
A. The QMS describes how managers, at all levels, assess their management processes.	A. The QAPD establishes the expectation for managers, at all levels, to assess their programs. Procedures provide methods for performance of management assessments at the program/system level and self assessments at the system/process level. B. Issues identified during assessments are entered into the CAM system for evaluation and resolution. C. Results of assessment program performance is monitored and reported to senior management on a monthly basis. Managers are scheduled, by name, to perform management assessments and self assessments. Level of detail and adequacy of assessments are areas that need to be improved.	QA&S-2010-002, Independent Assessment of WCH Assessment Program	🟢
B. The QMS provide for the identification and correction of problems that hinder the organization from achieving its objectives.	Although the Independent Assessment of the WCH Assessment Program identified one finding regarding the format of Management Assessments, planning, performance and reporting was deemed acceptable. While the program posture is healthy, concerns with the depth and critical assessment of the assessors continue to be raised and improvements are warranted.		🟢
C. Managers take responsibility for, and directly participate in, the assessments.			🟡

Performance Score
Excellent (blue) | Good (green) | Investigate (yellow) | Define Actions (red) | N/A (gray)

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

ASSESSMENT/ INDEPENDENT ASSESSMENT [10 CFR 830 Criterion #10]	SCORE

ASME NQA-1, 2004	Supported ISM Core Functions/Guiding Principles
1. Organization 2. Quality Assurance Program 10. Inspection 11. Test Control	15. Control of Nonconforming Items 16. Corrective Action 18. Audits	Feedback/Continuous Improvement Operations Authorization

Response

Lines of Inquiry	Basis	Supporting Documents	Score
A Independent assessments (e.g., audits) are planned and conducted to measure item and service quality, to measure the adequacy of work performance, and to promote improvement.	A. Independent Assessments are identified as part of the annual scheduling process and are conducted to measure item and service quality with a focus on performance and continuous improvement	ISMS Phase II Verification (Nov 2007)	
B The organization responds on assessments in a manner that results in continuous improvement.	B. Issues identified during assessments are entered into the CAMs system for evaluation and resolution. QA review and acceptance of resolution and final closeout of QA issues ensures positive results.	A-10-OOD-WCH-001, Assessment of the Effectiveness of the Building 336 Corrective Actions	
C The group performing independent assessments has sufficient authority and freedom from line management (i.e., not directly responsible for the work being assessed) and the persons who perform independent assessments are technically qualified and knowledgeable in the areas to be assessed.	C. Independent Assessors are certified by the QA Manager and are provided sufficient authority and freedom from line management. Individual assessor experience is used to ensure technically qualified personnel are performing assessments and subject matter experts are utilized as necessary to augment any knowledge weaknesses.	QA&S-2010-002, Independent Assessment of WCH Assessment Program	
D measures to prevent recurrence of significant conditions adverse to quality, and notify the appropriate organization in writing of action taken or planned.	D. All issues identified during assessments are entered into the CAMs system for evaluation and resolution. QA review and acceptance of resolution and final closeout ensures positive results. WCH has a good model (training, planning, and procedures). However, an Independent Assessment identified a number of issues regarding the performance of assessments not meeting expectations. As part of a corrective action, an internal communication was issued regarding expectations and evaluations of assessments are ongoing to review performance.		

(Line of Inquiry D label on page also reads: "Management of the audited organization or activity investigate adverse audit findings, schedule corrective action, including measures to prevent recurrence of significant conditions adverse to quality, and notify the appropriate organization in writing of action taken or planned.")

Performance Score

- Excellent (blue)
- Good (green)
- Investigate (yellow)
- Define Actions (red)
- N/A (gray)

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

SUSPECT / COUNTERFEIT ITEMS (S/CI) [DOE O 414.1C, Section 4 & Attachment 3]		SCORE
ASME NQA-1, 2004 7. Control of Purchased Items & Services 8. Identification & Control of Items	10. Inspection 15. Control of Nonconforming Items	🟢

Lines of Inquiry	Response		
	Basis	**Supporting Documents**	**Score**
A. An S/CI process is in place to adequately identify problems, control non conforming items and prevent their use.	A. WCH QAPD identifies S/CI requirements in section 11 and the implementing procedures reflect the expectations. Key elements of inspection, use of NCR process, and control of items are addressed. B. Periodic assessments are performed, augmented with an Independent assessment of program implementation. C. All S/CI issues are captured on an NCR which requires and IF to be issued. The IF is used to track issue resolution and closure.	Lessons Learned: Reporting S/CI's Identified by Subcontractors. 7/22/11 Surveillances: 300 FR 2009-S053Field remediation 100D SEC Program Implementation	🟢
B. Oversight of the S/CI process is performed to ensure it is functioning adequately.	The overall implementation is deemed acceptable based on past assessment activities, improvement initiatives associated with training warehousemen, engineers, electricians, and vendors on S/CI program elements. Formal S/CI training performed by the DOE S/CI SME Rodger Moerman including presentations by the local Hanford Inspector General Agents and Under Writers Laboratory (UL) SME was held in January 2011.	200 D4 QA&S-2010-S060 Overview For Possible S/CI in Warehouse Storage ERDF QA&S-2011-S022 Acceptance & Inspection of subcontractor items storage including no S/CI	🟢
C. Corrective actions for S/CI identified issues are adequately performed and tracked to ensure closure and provide lessons learned.		Self Assessments: HAMMER Training course #170720 Surveillance QA&S2010-SA007	🟢

Performance Score

🔵 Excellent 🟢 Good 🟡 Investigate 🔴 Define Actions ⚪ N/A

EM Corporate QA Performance Metrics
10 CFR 830.122 & DOE O 414.1C

SAFETY SOFTWARE QUALITY (SQA) REQUIREMENTS [DOE O 414.1C, Section 5 & Attachment 5]	SCORE
ASME NQA-1, 2004	🟢
3. Design 5. Instructions, Procedures and Drawings	7. Control of Purchased Items & Services 11. Test Control	

Lines of Inquiry

Response

Lines of Inquiry	Basis	Supporting Documents	Score
A Safety software quality assurance requirements are adequately incorporated into a formal QA program.	A. Safety Software requirements are incorporated into the QAPD, using 414.1C grading process. B. WCH's Safety Software baseline is complete and meets appropriate requirements. C. The most recent Independent Assessment verified overall compliance with some minor alignment weaknesses. Overall implementation is deemed acceptable based on results of the Independent Assessment on software (July 2009), DOE RL assessment on Safety Software Controls (August 2010). The Independent Assessment in 2009 also identified some minor alignment issues. QAPD and implementing processes were updated to address deficiencies. The 2010 DOE RL assessment a) found no issues, b) identified one good practice, and c) judged the recent WCH self-assessments as adequate and stated that each was thorough and critical.	Independent Assessment Software IA-QA&S-2009-002 Surveillance Software Quality Assurance, MICROSHIELD, RADCALC, and WMIS QA&S-2009-S014	🟢
B Safety software utilized by contractor has DOE software quality assurance requirements applied.		Surveillance Safety Software Assessment on Documentation and Life Cycle Standards for Hotspot, SAP2000, and RadCon Field Data Management System (RFDM) PS-2011-SA009	🟢
C Management and/or Independent assessments performed, specifically address safety software quality requirements		DOE RL Surveillance of the WCH Software Quality Assurance Program S-10-AMSE-WCH-012	🟢

Performance Score

🔵 Excellent 🟢 Good 🟡 Investigate 🔴 Define Actions ⚪ N/A

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M. S. French	A3-04
J. E. Parsons	A5-17
R. A. Stimmel	A7-80

<u>Washington Closure Hanford</u>

H. M. Hassel	H4-25
K. D. Jenkins	H4-25
C. A. Johnson	H4-24
E. J. Millikin	H4-25
S. A. Thursby	H4-25
G. A. Sly	H4-25

Document Control	H4-11
DOE-RL Public Reading Room	H2-53
Hanford Technical Library	P8-55