

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1



## **Richland Operations Site Action Plan**

**Commitment 23, Work Planning and Control  
DNSFB Recommendation 2004-1**

A handwritten signature in black ink, appearing to read "Keith Klein", is written over a horizontal line.

**Approved, Keith Klein, Manager  
Richland Operations**

NOTE: Change Control for this Site Action Plan resides with the Field Office Manager (or designee), with a cc: to EM-3.2.

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1

## Executive Summary

### Evaluation Process

This assessment was conducted as part of the U.S. Department of Energy, Richland Operations Office (RL) response to Commitment #23 of the Department of Energy's Implementation Plan (IP) for Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1, "Oversight of Complex, High-Hazard Nuclear Operations." This assessment was conducted in accordance with the instructions provided in the November 18, 2005, DOE Headquarters memorandum from the Chief Operating Officer for Environmental Management. Specific direction was provided to perform a review of the DOE field office and contractor in the area of work planning and control. RL staff determined that the best approach to evaluate against the CRAD was to perform an RL self-assessment for DOE performance and a Core Surveillance, described below, performed against Fluor Hanford, Inc. (FHI) projects. Washington Closure Hanford, LLC (WCH) was not evaluated at this time due to the recent contract transition and impending ISMS verification scheduled for FY 2006. WCH ISMS verification actions have been incorporated into this action plan.

Work planning has been a focus area of RL oversight throughout FY 2005. Efforts to improve hazardous energy control identified weaknesses in the work control program and the need for additional oversight in this area. RL performed an assessment and core surveillance of work planning/work control in the last year. In each case, a surveillance guide was developed and performed simultaneously at a number of FHI projects to determine individual and sitewide issues. RL had a core surveillance scheduled for March 2006 that was rescheduled to December 2005 to perform the 2004-1 directed oversight of contractor work planning implementation. To support planning for this oversight, RL incorporated the 2004-1 WPC CRAD and considered for incorporation elements of the NNSA "Activity Level Work Planning and Control Processes Manual" into the existing RL work planning surveillance guide and directed the DOE Facility Representatives to perform the requested oversight against the seven RL Federal projects. The results of the individual surveillances were evaluated for crosscutting or programmatic issues in the form of a roll-up evaluation. The roll-up and individual surveillance reports were transmitted to FHI for action. This action plan contains the actions to address the programmatic opportunities for improvement and does not include the individual facility resolution of specific issues identified in each surveillance report. Those items will be evaluated and resolved at the facility level through the corrective action management process.

February 3, 2006

Site Action Plan

WP&amp;C Commitment 23 – DNFSB Recommendation 2004-1

## Overall Evaluation Summary

The results of this assessment determined that RL meets the objectives for CRAD-1 and CRAD-2 with one opportunity for improvement noted. FHI was found to meet the objectives of CRAD-3 through CRAD-7 with opportunities for improvement noted in the assessment area of CRAD-5. Actions were incorporated into the plan to address performance of an ISMS verification for WCH to include work planning and control aspects of ISMS implementation. The following table provides the results of this assessment.

<u>CRAD #</u>	<u>Objective Met</u>	<u>Objective Partially Met</u>	<u>Objective Not Met</u>	<u>Comments</u>
1	X			2 OFIs noted
2	X			No issues noted
3	X			1 OFI noted
4	X			No issues noted
5		X		1 OFI noted
6	X			No issues noted
7	X			No issues noted

### Summary of Results for WPC 1 and 2:

WPC-1 and -2 Work Planning and Control Oversight: RL performed a self-assessment against the CRADS to evaluate this area. The self-assessment found processes are in place to ensure evaluation and oversight of contractor work planning. Oversight planning includes consideration of risk, hazards and complexity of the work activity, and the identification of performance issues. Evidence exists that oversight is performed and used to support trending and tracking of issues, continuous improvement, and contractual actions, when necessary. Based upon the results of the self-assessment, RL has adequate mechanisms to perform oversight of all aspects of work planning, including processes to document, trend, and resolve issues. No weaknesses were identified by the self-assessment, however, an opportunity for improvement is identified to incorporate this CRAD into the existing RL work planning surveillance guide for use during the annual Core Surveillance. Following the completion of the assessments related to this commitment, the DNFSB performed work planning oversight for two FHI projects. The discussions related to this oversight highlighted the need for RL to have a work planning Subject Matter Expert to provide continuous leadership and expertise to support a rigorous and effective site work planning program. Thus, an additional OFI has been captured in this action plan to establish an RL work planning SME.

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1

**Summary of Results for WPC 3 through 7:**

In December 2005, RL completed eight surveillances on FHI facilities utilizing Surveillance Guide MAS 10.4, “Work Planning and Work Control.” The surveillance guide that was used had been revised to incorporate the 2004-1 work planning and control CRAD. The surveillances resulted in nine Findings and sixteen Observations which were evaluated for crosscutting issues/concerns. The evaluation resulted in a concern related to weaknesses in the process for identifying hazards and implementation of controls into work instructions. This concern and two others were identified by RL in June 2005, and FHI addressed in a Corrective Action Plan (CAP) submitted to RL in August 2005. One action in the CAP was for FHI to perform an assessment of the adequacy of field work at all projects to determine whether work is performed in accordance with requirements. The outcome of each Performance Objective is summarized below:

WPC-3 Work Control Program Documentation: FHI has established a documented work planning and control program in HNF-PRO-12115, Work Management and HNF-PRO-079, Job Hazard Analysis, and individual projects have implementing procedures. Personnel are trained to the work control requirements. The program includes a post-job review and a vehicle for incorporation of lessons learned into work packages. Qualification requirements for Work Control Managers and Planners have not been established, but this is included in the FHI CAP and was incorporated in this Action Plan. The December 2005 RL surveillances did not identify any additional concerns.

WPC-4 Work Planning and Control Activity (Definition and Hazard Identification): FHI utilizes the Automated Job Hazard Analysis (AJHA) program to identify hazards and their associated controls. RL observed AJHA development and field walk-downs for activity for varying complexities. In general, the AJHA tool is effectively utilized in conjunction with a walk-down of the proposed activity by an integrated team. Upset conditions are being considered. Information from the walk-downs is used to develop the work package, but additional attention is needed as discussed in WPC-5. RL review found isolated instances of projects not integrating hazard information into a recovery plan, changes made to a completed AJHA during ALARA committee review, and an AJHA that did not reflect work conditions. These isolated events did not represent a programmatic concern.

WPC-5 Work Planning and Control Process: RL reviewed the work package development process, completed work packages, and interface between the identification of controls, and incorporation into the work package. Most work packages included a clear scope, proper sequencing, incorporated requirements, and controls which were identified prior to the applicable step in the procedure. A review by RL identified issues at different facilities with inadequate identification of isolation boundaries for Lockout/Tagout. A finding and several observations were identified related to controls not being incorporated adequately into the AJHA and associated work package. This weakness was identified as a repeat concern. However, no additional actions are deemed to be warranted at this time because FHI is in the process of implementing corrective actions. RL will continue to monitor corrective action progress as part of routine oversight. The following issues associated with this CRAD were identified in the surveillances:

February 3, 2006  
Site Action Plan

WP&C Commitment 23 – DNFSB Recommendation 2004-1

- **S-06-OOD-CENTPLAT-002-O01** Lack of timely reviews/approvals of work packages.
- **S-06-OOD-SWOC-002-O03** Actual man-hours worked was double the planning estimate.
- **S-06-OOD-SNF-002-O01** Planners consistently underestimated craft and support personnel hours.
- **S-06-OOD-CENTPLAT-002-F01** Poor work planning evident in insufficient LO/TO isolation boundary identification.
- **S-06-OOD-SWOC-002-F01** The two lockout points identified in W1-05-06596 were inadequate to completely isolate the electrical power and remove the potential hazards to personnel who would be performing the task described in the Work Document.
- **S-06-OOD-PFP-002-O02** Vague work instructions or controls were identified in two work packages.
- **S-06-OOD-200LWP-LPCS-002-O01** Work package did not contain all necessary information.
- **S-06-OOD-SNF-002-F02** 105-KE management personnel failed to recognize and apply the Unreviewed Safety Question (USQ) process.
- **S-06-OOD-FFTF-002-F01** Controls identified during the work package planning process (Automated Job Hazard Analysis) were not being consistently incorporated into work instructions.
- **S-06-OOD-CENTPLAT-002-O03** Lack of specific precautions/limitations specified in work package regarding weight limitations of equipment.

WPC-6 Work Planning and Control Oversight: RL performed considerable oversight of performance of work activities during the completed surveillances. Reviews indicated supervisors and workers were knowledgeable of their work control documents and processes. Operations work control authorities at FHI facilities reviewed work documents to ensure scheduled work activities could be performed safely, and authorized release of work documents prior to commencement of work. Pre-job briefings are being performed on a consistent basis, the level of detail of the briefings is appropriate for the scope of the work and found to be satisfactorily conducted. First line supervisors and workers understand their stop-work authority. A couple of instances were noted with fieldwork supervisors and workers not following work control document instructions as written, nor following their change control process to make required changes to work documents when discrepancies were noted. One example was noted where personnel were not using the Activity Level Feedback Database of the Automated Job Hazard Analysis (AJHA) to provide lessons learned to other users. These isolated events were not of significance to be deemed a programmatic concern.

WPC-7 Work Planning and Control Oversight: FHI has an established process to perform timely assessments/surveillances of the work planning and control process. As part of each surveillance, an evaluation of the contractors' self-assessment program in the area under review is required. Of the eight surveillances conducted as part of the work planning and work control review, only the PFP Project self-assessment process was found to be inadequate in this area. The contractor generally schedules and performs self-assessments and independent assessments of the work control process. These assessments are included in the Integrated Evaluation Plan which is reviewed by RL. Issues that are identified in these assessments are processed through corrective action management

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1

and the contractor tracks and trends the results of the oversight activities. Line managers periodically review approved work control documents and perform surveillances of in-field activities. Other than a minor issue with the lack of self assessments at the Plutonium Finishing Plant (PFP), this was not an area noted as weak or needing improvement.

**Conclusion:**

In general, work planning and control at FHI facilities is being performed adequately to ensure work at the activity level is controlled. FHI's work control program is documented, and staff members are training to the automated job hazard analysis process. Proposed work activities are adequately defined, but continued weakness was observed in the process for identifying hazards and the implementation of controls into work instructions. RL believes the FHI activities in the Action Plan will adequately address the programmatic weakness. Contractor personnel generally perform work in accordance with approved work control documents and line management assesses performance of their work against work control programmatic requirements. No weaknesses in the RL oversight program were identified.

In addition, in January, the DNFSB performed an assessment of work planning and control at two RL projects, K-Basins and PFP, using the NNSA "Activity Level Work Planning and Control Processes Manual." Initial feedback validated RL oversight results, although the formal outbrief is scheduled for February 8, 2006. The review did highlight a potential need for a RL work planning subject matter expert. RL management has added this opportunity for improvement and corresponding action to this action plan to support continuous improvement of work planning.

Section I contains those actions important to improving the effectiveness of the RL work planning and control oversight.

Section II contains those actions necessary to verify WCH ISMS, including work planning, implementation.

Section III contains those actions important to improving the effectiveness of FHI work planning processes.

Section IV contains RL work planning and control "Good Practices" for sharing across the DOE.

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1

**SECTION I – DOE Oversight**

**Performance Objective WPC-1: DOE Work Planning and Control Oversight**

Opportunity for Improvement #1

RL uses an existing work planning surveillance guide and core surveillance approach to regularly perform oversight of contractor work planning program implementation. The 2004-1 CRAD will be incorporated into the existing surveillance guide to strengthen RL oversight.

DOE Action	Deliverable	Due Date	Owner/Org
Incorporate the 2004-1 work planning and control CRAD into the RL work planning surveillance guide for use during future Core Surveillance oversight.	Updated surveillance guide for use by RL staff.	Complete	Rob Hastings, RL

Responsible Manager: Operations Oversight Division

Opportunity for Improvement #2

Performance of the 2004-1 work planning assessment and subsequent DNFSB oversight have highlighted the need for a RL work planning subject matter expert to maintain work planning expertise and drive programmatic continuous improvement.

DOE Action	Deliverable	Due Date	Owner/Org
Establish a RL work planning subject matter expert	Revisions to RIMS to identify and define a RL work management subject matter expert	July 28, 2006	Rob Hastings, RL

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1

Responsible Manager: Operations Oversight Division

**Performance Objective WPC-2: DOE Work Planning and Control Oversight**

No opportunities for improvement noted at this time.

**SECTION II – Washington Closure Hanford (WCH)**

**Performance Objective WPC-3: Work Control Program Documentation**

Opportunity for Improvement #1

WCH recently received the contract for RL River Corridor Closure workscope and is, therefore, in the process of developing an ISMS system description for all WCH workscope. Based upon this process, an opportunity for improvement has been identified to capture the need for ISMS verification of WCH in FY 2006.

DOE Action	Deliverable	Due Date	Owner/Org
Complete the WCH ISMS phase I verification	Phase I ISMS verification report	May 30, 2006	Doug Shoop, RL
Complete WCH ISMS Phase II verification	Phase II ISMS verification report	September 30, 2006	Doug Shoop, RL

Responsible Manager: Assistant Manager for Safety and Engineering

**Performance Objective WPC-4: Work Planning and Control Activity; Definition and Hazard Activity**

No opportunities for improvement noted at this time.

**Performance Objective WPC-5: Work Planning and Control Oversight Process**

No opportunities for improvement noted at this time.

**Performance Objective WPC-6: Work Planning and Control Oversight**

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1

No opportunities for improvement noted at this time.

**Performance Objective WPC-7: Work Planning and Control Contractor Oversight**

No opportunities for improvement noted at this time.

**SECTION III – Fluor Hanford, Inc. (FHI)**

**Performance Objective WPC-3: Work Control Program Documentation**

No opportunities for improvement noted at this time.

**Performance Objective WPC-4: Work Planning and Control Activity; Definition and Hazard Activity**

No opportunities for improvement noted at this time.

**Performance Objective WPC-5: Work Planning and Control Oversight Process**

Opportunity for Improvement #1

RL reviewed the work package development process, completed work packages, and interface between the identification of controls and incorporation into the work package. Most work packages included a clear scope, proper sequencing, incorporated requirements, and controls which were identified prior to the applicable step in the procedure. RL's review identified issues at different facilities with inadequate identification of isolation boundaries for Lockout/Tagout. A finding and several observations were related to controls identified in the AJHA not being incorporated adequately into the work package. This weakness was identified as a repeat concern. However, no additional actions are deemed to be warranted at this time because FHI is in the process the implementing corrective actions. RL will continue to monitor progress as part of routine oversight and continue to document in the Operational Awareness database. Based upon the continued weaknesses in hazard identification and control, an opportunity for improvement has been identified to capture the need for a systematic set of actions to improve performance.

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1

FHI Action	Deliverable	Due Date	Owner/Org
Perform assessment of adequacy of fieldwork. This action is intended to determine the extent of the weakness to ensure actions will be effective.	Copy of the completed assessment.	February 28, 2006	R. Kaldor
Develop performance indicators to evaluate effectiveness of work management program. These indicators are intended to provide routine evaluation of work planning performance for early identification and resolution of issues.	Copy of the approved indicators.	Complete	R. Kaldor
Develop an Implementation Plan based upon results of the assessment. It is expected that some additional actions will result from the assessment to define the full extent of the condition.	Copy of the implementation plan and incorporation of additional action into deficiency tracking system.	April 15, 2006	R. Kaldor
Update training needs analysis and qualification standards for planners. It is clear that additional rigor in training and qualification requirements for planners is necessary to ensure consistent performance of work planning in accordance with site procedures.	Copy of the updated needs analysis.	May 30, 2006	R. Kaldor
Reinforce management's expectations for completing work record entries. Immediate communication of expectations is expected to provide immediate improvement in consistent documentation of work record entries.	Copy of the work record management expectation as communicated to staff.	Complete	G. Griffin

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1

Reinforce management's emphasis on importance of post job reviews. Immediate communication of post job expectations is expected to provide initial improvement in performance and use of post job information.	Copy of the post job information communicated to staff.	Complete	G. Griffin
Conduct self assessment of conduct of post job reviews. This assessment is designed to determine the extent of the weakness and effectiveness of management communication of effectiveness.	Copy of the self-assessment	February 28, 2006	R. Kaldor
Determine method of documenting decision on hazards analysis. This action is intended to establish consistency in how hazard analysis decisions are documented and communicated.	Copy of the hazard analysis decision document.	Complete	G. Griffin
Communicate expectations for a hazards analysis to support work planning. This action reiterated the expectation for hazards analysis while the overall process is improved.	Copy of the hazards analysis expectations communicated to staff.	Complete	D. Wiatrak
Reinforce requirements for electrical work into work planning hazard identification and control. This action reiterated how electrical hazards are evaluated and controls identified in the work planning process	Copy of the electrical work planning requirements communicated to staff.	Complete	P. Garelo

Responsible Manager: FHI Vice President of Safety and Health

February 3, 2006  
Site Action Plan  
WP&C Commitment 23 – DNFSB Recommendation 2004-1

DOE Action	Deliverable	Due Date	Owner/Org
Perform RL verification of work control and hazardous energy control integration action plan effectiveness.	DOE-RL verification documentation.	June 15, 2006	Doug Shoop, RL

Responsible Manager: Operations Oversight Division

**Performance Objective WPC-6: Work Planning and Control Oversight**

No opportunities for improvement noted at this time.

**Performance Objective WPC-7: Work Planning and Control Contractor Oversight**

No opportunities for improvement noted at this time.

**SECTION IV – DOE-RL WP&C Good Practices**

Good Practice(s)	Site Point of Contact
Good Practice #1: FHI has been recognized in the past for excellent worker involvement in work planning and the implementation of Enhanced Work Planning using the Automated Job Hazards Analysis tool.	Reed Kaldor, FHI: (509)-372-1992
Good Practice #2: Consistent with Behavior Based Safety Training, FHI has implemented a strong Zero Accident Council at the contractor and project level with noteworthy commitment across management and the bargaining unit that drives safety throughout FHI	Tony Umek, FHI: (509)-373-5983
Good Practice #3: RL uses a Core Surveillance process to evaluate multiple facilities simultaneously against a common surveillance guide/CRAD. The results of the oversight are evaluated for cross-cutting and programmatic issues that are then transmitted to the contractor for evaluation and action.	Rob Hastings, RL: (509)-376-9824