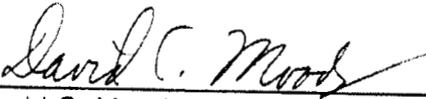


Carlsbad Field Office Site Action Plan
Commitment 23, WP&WC – DNSFB Recommendation 2004-1

Carlsbad Field Office
Site Action Plan
Commitment 23, Work Planning and Work Control
DNSFB Recommendation 2004-1

Approved: 
David C. Moody, Manager, Carlsbad Field Office

Note: Change Control for this Site Action Plan (SAP) resides with the Field Office Manager.

EXECUTIVE SUMMARY

Evaluation Process

This assessment was conducted as part of the Carlsbad Field Office (CBFO) response to Commitment #23 of the Department of Energy's Implementation Plan for Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1, *Oversight of Complex, High-Hazard Nuclear Operations*. This assessment was conducted in accordance with 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. The assessment team utilized existing assessment data, and conducting a focused assessment of specific components as required to fully evaluate all work planning and control processes utilized at the Waste Isolation Pilot Plant (WIPP).

The assessment is the product of a team effort with participation by personnel from the CBFO, the CBFO Technical Assistance Contractor (CTAC), and the Management and Operating (M&O) Contractor. The assessment team included: 1) the Director of the CBFO Office of Disposal with 20 years geotechnical and environmental management experience, NQA-1 lead auditor training, and completed technical qualifications; 2) the CBFO Safety Officer with 25 years industrial and nuclear safety experience, bachelor's of science with a chemistry major and mathematics minor, and completed technical qualifications as safety officer and nuclear safety specialist; 3) a CTAC senior professional engineer with NQA-1 lead auditor training, 30 years experience in industrial operations management and in safety and environmental compliance; and 4) an M&O contractor senior engineer/VPP Program Coordinator for the WIPP Site with ASQ lead auditor certification, OSHA lead safety assessment certification, DOE Radiological Programs Assessor Certification, and over 20 years experience in safety and quality assurance.

Overall Evaluation Summary

The results of the WIPP assessment determined that CBFO meets objectives WPC 1 and 2 of the prescribed work planning and control Criteria Review and Approach Document (CRAD) with no issues noted. Washington TRU Solutions, the WIPP M&O contractor, was found to meet the objectives WPC 3 through 7 of the prescribed work planning and control

Carlsbad Field Office Site Action Plan
Commitment 23, WP&WC – DNFSB Recommendation 2004-1

CRAD with one opportunity for improvement (OFI) noted involving the fact that some new technical safety TSRs are still in the process of being implemented at WIPP and with several specific strengths or best practices noted.

Work Planning and Control CRAD

Objective #	Objective Met	Objective Partially Met	Objective Not Met	Comments
WPC 1.	X			No OFI's Noted
WPC 2.	X			No OFI's Noted
WPC 3.	X			No OFI's Noted
WPC 4.	X			No OFI's Noted, 1 Strength
WPC 5.	X			1 OFI, 1 Strength
WPC 6.	X			No OFI's Noted, 1 Best Practice
WPC 7.	X			No OFI's Noted

At the WIPP site, all the work planning and work control processes fall under the same programs allowing a consistency in implementation that provides a strong foundation for overall effectiveness and compliance with the prescribed performance objectives. WIPP procedures adequately delineate responsibilities of the personnel involved in the work control program including initiating, analyzing, and developing work control packages. The process establishes in-depth reviews from field personnel to first line management and the approvals necessary for the various types of work packages to ensure risks are identified and mitigated. Preliminary walk-downs, work area inspections, pre-job briefings, and other prerequisites including required training and limitations, are incorporated fully into the work planning processes. The overall work planning process is effective in generating work control documents that lead to safe and efficient completion of work activities. Work in progress is overseen by direct line management supervision, senior management walk-arounds, CBFO field oversight, inspections, surveillances, and formal audits. These oversight activities and other avenues such as performance indicators and post job reviews are trended and lessons learned implemented. Subsequently continuous improvement in work planning and work control is part of the routine process at WIPP.

Carlsbad Field Office Site Action Plan
Commitment 23, WP&WC – DNFSB Recommendation 2004-1

Objective 1

The DOE field element has an established process that ensures effective oversight of the contractor's work planning and control process.

Discussion:

The Carlsbad Field Office *Contractor Oversight Plan* (DOE/CBFO 04-3299) defines the process used by CBFO to oversee contractor work activities to verify that work is performed in a safe, secure and effective manner. DOE/WIPP 98-2287 the *CBFO Functions, Responsibilities, and Authorities Manual* (FRAM) defines responsibilities of field element personnel assigned safety oversight of contractor work planning and work control processes. CBFO established and utilizes these two documented processes to provide for, among with other outcomes, effective safety oversight of contractor work planning and work control at WIPP. The CBFO Contractor Oversight Plan and FRAM, and the objective evidence of their implementation at WIPP, which was reviewed in assessments associated with Commitment 23, satisfy this performance objective. Therefore, no opportunities for improvement were identified for this objective, and no currently open corrective actions from previous assessments were discovered related to this performance objective.

Objective 2

The DOE field element performs effective oversight of the contractor's work planning and control process.

Opportunity for Improvement:

No opportunities for improvement were identified for this objective, and no currently open corrective actions from previous assessments were discovered that are related to this objective. During fiscal year 2005, CBFO provided oversight for 24 operations assessments by the technical assistance contractor and conducted 8 direct assessments. For FY06 there are 16 operational assessments planned and 12 CBFO oversight assessments of the M&O Contractor. Implementation of the CBFO Contractor Oversight Program Plan, CBFO documented assessments, CBFO and independent ISMS reviews, and multiple work-place oversight activities conducted daily on an ongoing basis by CBFO technical staff deployed in Carlsbad and at the WIPP Site form the core for effective oversight of the contractors' work planning and control processes.

Carlsbad Field Office Site Action Plan
Commitment 23, WP&WC – DNFSB Recommendation 2004-1

Objective 3

The contractor has developed an effective work planning and control process.

Opportunity for Improvement:

Washington TRU Solutions LLC, the management and operating contractor (MOC) at WIPP, has developed and implemented an effective work planning and control process. WIPP Procedure (WP) 10-2, Rev. 11, *Maintenance Operations Instruction Manual*, (MOIM) and WP 10-WC3011, Rev. 16, *Maintenance Process*, were reviewed to verify that the procedures contain the necessary attributes of an effective work control program. The procedures adequately delineate the roles and responsibilities of the personnel involved in the work control program including initiating, analyzing, and developing work control documents. The process establishes the level of review and approval necessary for the various types of work packages from skill of the craft, to preventive maintenance, corrective maintenance, up to major modifications.

There were no opportunities for improvement identified for this objective. No open corrective actions or initiatives from previous reviews or assessments related to this objective were discovered.

Objective 4

Proposed work activities are adequately defined and analyzed to identify hazards and their associated controls.

Opportunity for Improvement:

A review verified that this objective is effectively met. In 2004, a Type B Investigation of an accident resulting in an injury to a WIPP underground miner led to the formulation of corrective actions to address findings of the investigations. A number of those corrective actions were connected to defining work activities and to analyzing and mitigating hazards. All corrective actions connected to the investigation have been implemented and closed by the management and operating contractor at WIPP, and independently verified by CBFO. Those corrective/verification activities have resulted in improved job hazard analysis at WIPP.

No current opportunities for improvement were identified for this objective. No open corrective actions or initiatives from previous reviews or assessments related to this objective were discovered.

Carlsbad Field Office Site Action Plan
Commitment 23, WP&WC – DNFSB Recommendation 2004-1

Strength:

A particular strength was noted that as mitigation actions were identified to be taken in case of specific hazards identified in the work package, each worker to be conducting the work involved in that package had to additionally sign at each mitigation step to ensure they understood the importance of that aspect in the package.

Objective 5

The contractor work planning process generates work control documents that lead to safe and efficient completion of work activities.

Opportunity for Improvement:

The work planning processes of the WIPP MOC and subcontractors are effective. An opportunity for improvement was identified related to this objective to incorporate safety basis requirements into work control documents. Since a new revision to the WIPP Documented Safety Analysis for contact-handled waste disposal operations includes new technical safety requirements (TSRs) that are in the process of being implemented at WIPP, the necessity to conduct a surveillance to verify full implementation of the new TSRs was identified as an opportunity for improvement for this objective. Implementation of TSRs will be assessed in the planned surveillance to verify that the application of TRSs to work planning processes result in their incorporation into work control documents in accordance with the criteria of this objective. No open existing corrective actions or initiatives related to this objective were identified.

Action Description	Deliverable(s)	Due Date	Owner
Verification of TSR Implementation	Surveillance Report	4/28/06	WTS Quality Assurance Manager

Strength:

The requirement for completion of a table identifying measurement and test equipment (M&TE) specifics such as instrument number, calibration date, and signature for each M&TE used to conduct the activities identified in the work package is considered a strength.

Objective 6

Carlsbad Field Office Site Action Plan
Commitment 23, WP&WC – DNFSB Recommendation 2004-1

Contractor personnel perform work in accordance with approved work control documents.

Opportunity for Improvement:

This objective was verified through document reviews, interviews, and observing work in progress. In addition, quality assurance trending has demonstrated continued improvement in procedural compliance. No previously existing corrective actions or initiatives related to this objective were discovered. No opportunities for improvement were identified for this objective.

Strengths:

The WIPP Lessons Learned Program, which was acknowledged as evidence addressing the criteria for this objective, was specifically noted as a Best Practice by the DOE EH VPP review team in the fall of 2005.

Objective 7

The contractor has an established processes that requires line management and assessment personnel to perform timely assessments/surveillances of the work planning and control process, including periodic reviews of active and in-development work control documents.

Opportunity for Improvement:

No opportunities for improvement were identified for this objective.

This objective was fully met through assessments/surveillances conducted in accordance with WIPP Procedure (WP) 13-1, the *WTS Quality Assurance Program Description*. These assessments/surveillances include independent assessments, management assessments, and informal walk-downs and reviews. No previous existing corrective actions or initiatives were discovered that are related to this objective.



**Idaho Operations Office and
Idaho National Laboratory Site
Site Action Plan**

**Commitment 23, Work Planning and Control
Commitment 25, Feedback and Improvement**

DNSFB Recommendation 2004-1

A handwritten signature in black ink, appearing to read "E D Sellers".

Approved, E. D. Sellers, Manager

Executive Summary

Evaluation Process

Three of the Performance Objectives (PO), consisting of nineteen individual review criterion, associated with Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1, Oversight of Complex, High-Hazard Nuclear Operations, Commitment 23 and Commitment 25, pertain specifically to Department of Energy Idaho Operations Office (DOE-ID) performance. A team consisting of fifteen DOE-ID employees performed a self-assessment of those Performance Objectives using review criteria provided in memoranda issued by Under Secretary Garman.

Overall Evaluation Summary

The DOE-ID self-assessment team concluded that Work Planning and Control (WPC) PO-1 Criterion 3, WPC PO-1 Criterion 4, Feedback and Improvement (F&I) PO-3 Criterion 1, F&I PO-3 Criterion 6, F&I PO-3 Criterion 8, F&I PO-3 Criterion 9, F&I PO-3 Criterion 10, and F&I PO-3 Criterion 11 were Fully Met; WPC PO-1 Criterion 1, WPC PO-1 Criterion 3.a, WPC PO-2 Criterion 1, WPC PO-2 Criterion 2, WPC PO-2 Criterion 3, F&I PO-3 Criterion 2, F&I PO-3 Criterion 3, F&I PO-3 Criterion 4, F&I PO-3 Criterion 5, and F&I PO-3 Criterion 7 were Partially Met, and WPC PO-1 Criterion 2 was Not Met.

For each instance when full compliance with a review criterion was not obtained, the DOE-ID self-assessment team provided a recommendation that could be used for developing a corrective action plan. The DOE-ID self-assessment team also concluded that, in most instances, a process for obtaining full compliance with the review criteria exists within DOE-ID and is available for implementation.

There were 17 recommendations (opportunities for improvement) identified. These recommendations were presented to Idaho Issues Review Board (IIRB) on January 18, 2006, for evaluation. All recommendations were accepted by the IIRB and were assigned responsible and issue managers to prepare action plans.

February 8, 2006
Site Action Plan

WP&C Commitment 23 & F&I Commitment 25 – DNFSB Recommendation 2004-1

SECTION I – DOE-ID Oversight

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

Opportunity for Improvement #1

DOE-ID should provide guidance on the continued maintenance and use of the previous ESH&QA Oversight Plan.
(ICATS 064-01-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Identify those oversight elements for FR's previously addressed in the AM Manuals, Chapter 4, and revise WI-133 to implement in the Oversight Plan.	An issued revision to WI-133 that incorporates the oversight elements from the previous AM Manuals.	03/15/2006	R.D.E. Newbry, FR Team Leader (SOSO)

Responsible Manager: R.M. Stallman, Senior Operations and Safety Officer (SOSO)

Opportunity for Improvement #2

DOE-ID should revise OD-101, Functions, Responsibilities, and Authorities, to reflect the current reporting chain for DOE-ID NE FRs. (ICATS 064-14-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Revise DOE-ID IDMS OD-101, Functions, Responsibilities, and Authorities, to reflect the reporting chain for DOE-ID NE FRs as identified in the DOE-ID organizational chart dated January 2006.	An issued revision to DOE-ID IDMS OD-101, Functions, Responsibilities, and Authorities, reflecting the reporting chain for DOE-ID NE FRs as identified in the DOE-ID organizational chart dated January 2006.	05/01/2006	M.D. Hicks, Quality and Safety Division

Responsible Manager: G.L. Beausoleil, Quality and Safety Division

Opportunity for Improvement #3

DOE-ID should evaluate how work planning and control oversight will continue to be selected based upon the degree of risk, hazards, and complexity of work activity.
(ICATS 064-02-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Evaluate whether work planning and control oversight will continue to be selected and performed based upon risk determination, or if all stages as specified in the criterion need to be performed, regardless of risk. Based on results of the evaluation, provide additional guidance for work planning and control oversight activities in work instructions.	Issue new or revise current work instructions to provide additional guidance for work planning and control oversight activities.	03/15/2006	R.D.E. Newbry, FR Team Leader (SOSO)

Responsible Manager: R.M. Stallman, Senior Operations and Safety Officer (SOSO)

February 8, 2006
 Site Action Plan

WP&C Commitment 23 & F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #4

The DOE-ID Technical Qualification Program should be modified to ensure that candidates who are expected to provide oversight of the contractor work control processes are knowledgeable of those processes.

(ICATS 064-03-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
(1) Identify DOE-ID positions that require demonstrated knowledge of the contractor work control processes.	Signed facility specific qualification standards with work control criterion incorporated.	03/31/2006	C.S. Henning, Human Resource Team
(2) Determine level of knowledge required for each position.			
(3) Cross-walk identified positions to TQP functional areas to determine which TQP standards must be modified.			
(4) Modify standard to include criterion for candidate to demonstrate either a working or familiarity level of knowledge of the contractor work control processes.			

Responsible Manager: D.W. Desautel, Human Resources Team

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

Opportunity for Improvement #1

DOE-ID should develop a formal process for tracking and trending the results of oversight of the contractor's work planning and control process.

(ICATS 064-05-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Implement Pegasus that has tracking and trending features.	Pegasus in place and operating.	04/01/2006	R.D.E. Newbry, FR Team Leader (SOSO)

Responsible Manager: R.M. Stallman, Senior Operations and Safety Officer (SOSO)

February 8, 2006
 Site Action Plan
 WP&C Commitment 23 & F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #2

DOE-ID should consider maintaining Performance Metrics summaries on the O-drive as a read-only copy to allow easier review by personnel involved in oversight.
 (ICATS 064-06-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
(1) Create a link for the Operational Performance Metrics Reports on the internal DOE-ID web page.	Ability to access from the web page.	1/31/06 Complete	K. Brown/ITST
(2) Ensure the DOE-ID IDMS documentation contains appropriate instruction(s) for Performance Oversight Lead (POL) to transmit monthly performance data to the DOE-ID Web master for posting on the DOE-ID internal web page.	The DOE-ID IDMS document is issued and contains instruction(s) for the POL to transmit performance data to the DOE-ID web master.	3/31/06	P. Contreras/QSD

Responsible Manager: W. D. Jensen, Information Technology Services Team (ITST)

Performance Objective F&I-3: DOE-ID Line Management Oversight

Opportunity for Improvement #1

DOE-ID NE should document the process for transmitting oversight information to the contractor.
 (ICATS 064-16-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Revise Work Instructions 122 (Conduct of Operational Oversight Activities) and 123 (Monthly Review of EM/ICP Oversight Results) to include the NE side for transmitting oversight information to the contractor.	Revised Work Instructions 122 and 123 are in place that includes the NE side for transmitting oversight information to the contractor.	03/01/2006	R.D.E. Newbry, FR Team Leader (SOSO)

Responsible Manager: R.M. Stallman, Senior Operations and Safety Officer (SOSO)

February 8, 2006

Site Action Plan

WP&C Commitment 23 & F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #2

DOE-ID should develop a procedure/instruction for determining what DOE identified issues are of sufficient magnitude to merit transmittal to senior contractor management by the CO.

(ICATS 064-07-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Develop and implement a process/procedure that applies severity weighting to findings and concerns that merit formal transmittal to senior contractor management.	A procedure is in place that applies severity weighting to findings and concerns that merit formal transmittal to senior contractor.	04/01/2006	R.D.E. Newbry, FR Team Leader (SOSO)

Responsible Manager: R.M. Stallman, Senior Operations and Safety Officer (SOSO)

Opportunity for Improvement #3

DOE-ID should develop a process and implement a procedure for verification and validation of corrective actions for contractor (ORPs and NTS issues) and DOE-ID identified issues that applies to both NE and EM.

(ICATS 064-08-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Develop a process, and implement a procedure for verification and validation of corrective actions for contractor (ORPs and NTS issues) and DOE-ID identified issues that applies to both NE and EM.	Procedure issued that requires verification and validation of corrective actions for contractor (ORPs and NTS issues) and DOE-ID identified issues that applies to both NE and EM.	04/01/2006	R.D.E. Newbry, FR Team Leader (SOSO)

Responsible Manager: R.M. Stallman, Senior Operations and Safety Officer (SOSO)

Opportunity for Improvement #4

DOE-ID NE should provide guidance on corrective action associated activities (documentation, reporting, and closure).

(ICATS 064-17-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Implement guidance on corrective action associated activities (documentation, reporting, and closure).	Procedure issued that provides guidance on corrective action associated activities (documentation, reporting, and closure).	04/01/2006	R.D.E. Newbry, FR Team Leader (SOSO)

Responsible Manager: R.M. Stallman, Senior Operations and Safety Officer (SOSO)

February 8, 2006
Site Action Plan

WP&C Commitment 23 & F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #5

DOE-ID should fully implement WI-108, ID Lessons Learned.
(ICATS 064-10-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
(1) QSD Management has identified a Lessons Learned Coordinator.	Formal appointment of lessons learned coordination duties by memorandum from the QSD Division Director.	02/10/2006 Complete	G.L. Beausoleil, Quality and Safety Division
(2) The Lessons Learned Coordinator will include lessons learned, and external events of relevance to ID into the existing Daily Summary and Weekly Summary.	Copies of Daily Summary and Weekly documentation including lessons learned and external events of relevance.	02/17/2006	H.M. Worrell, Quality and Safety Division
(3) Solicit feedback on relevance and distribution of the summaries.	Feedback from ID organizations concerning the effectiveness of the Daily Summary and Weekly for the dissemination of lessons learned information.	04/07/2006	H.M. Worrell, Quality and Safety Division

Responsible Manager: G.L. Beausoleil, Quality and Safety Division

Opportunity for Improvement #6

The DOE-ID NE organization should develop a process to determine the effectiveness of site programs, management systems, and CAS.
(ICATS 064-18-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Revise procedure WI-121, <i>Management of ID Environmental Management Quarterly Oversight Review Meetings</i> , to include the NE organization.	Revised procedure issued.	03/01/2006	R.D.E. Newbry, FR Team Leader (SOSO)

Responsible Manager: R.M. Stallman, Senior Operations and Safety Officer (SOSO)

Opportunity for Improvement #7

DOE-ID EM should complete the implementation of the scorecard process for BBWI.
(ICATS 064-12-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Complete the implementation of the monthly operational performance report (scorecard) process for BPWI.	Issuance of BBWI scorecard	4/30/06	G. A. Girard

Responsible Manager: E. J. Ziemianski, Waste Disposition Project

February 8, 2006
Site Action Plan

WP&C Commitment 23 & F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #8

DOE-ID NE should complete the implementation of the scorecard process for BEA.
(ICATS 064-13-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Implement a monthly operational performance report (scorecard) process for BEA.	Issuance of BEA scorecard	04/01/2006	R.F. Wilbur, LO

Responsible Manager: R.F. Wilbur, Laboratory Operations

Opportunity for Improvement #9

DOE-ID should ensure that the DOE-ID employee concern web links are re-established and that employees are aware of the web link locations.
(ICATS 064-11-00)

DOE-ID Action	Deliverable	Due Date	Owner/Org
Repair web links for Employee Concerns Program on the DOE-ID HR homepage.	Upon entry into the ECP web Link all of the links will be active	01/19/2006 Complete	J.E. Ogilvie, Human Resources Team

Responsible Manager: D.W. Desautel, Human Resources Team



Idaho Cleanup Project Action Plan

**Commitment 23, Work Planning and Control
Commitment 25, Feedback and Improvement
DNSFB Recommendation 2004-1**

Idaho Cleanup Project

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

Executive Summary

Evaluation Process

This assessment was conducted as part of the Idaho Cleanup Project (ICP) response to Commitments #23 and #25 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 contractor in the area of work planning and control, and feedback and improvement. The assessment team determined that a combination of existing assessment data and a conducting a focused assessment would be required to fully evaluate all work planning and control, and feedback and improvement processes utilized by CWI.

The CWI assessment team was organized into five groups with the Project Evaluation Board Manager as the lead for the assessment. Four of the groups were assigned to specific ICP areas (INTEC, RWMC, Construction, and D&D) to evaluate work practices and program implementation. The fifth group was assigned to evaluate ICP programs. Each of the teams was led by an experienced assessor who was familiar with requirements for work control and the ISMS. A pre-assessment meeting was held with the team leaders and the assessment team members to review expectations and the assessment methodology. Daily debriefings were held with the PEB Department Manager to ensure the assessment remained focused and to identify key issues. The assessment started on December 12, 2005 and completed on January 6, 2005. CWI management was briefed on the results of the assessment.

The CWI assessment teams used the Criteria Review and Approach Documents (CRADs) as specified in the following:

- Work Planning and Work Control Assessments and Site Action Plans for Defense Nuclear Facilities Safety Board Recommendation 2004-1, Commitment 23; David K. Garman, Under Secretary for Energy, Science and Environment, November 9, 2005
- Defense Nuclear Facilities Safety Board Recommendation 2004-1, Integrated Safety Management System Feedback and Improvement; David K. Garman, Under Secretary for Energy, Science and Environment, November 9, 2005

February 6 2006
Site Action Plan

WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

The CRADs and associated criteria were reviewed by the team in preparation for the assessment. In addition, the daily debriefings ensured that assessment of the CRADs and their associated criteria remained focused and met the expected needs of the assessment.

Overall Evaluation Summary

WORK PLANNING AND CONTROL, COMMITMENT 23

The results of this assessment determined that ICP meets the objectives for CRAD-3 (*The contractor has developed an effective work planning and control process*). The objectives for CRAD 4 (*Proposed work activities are adequately defined and analyzed to identify hazards and their associated controls*); CRAD 5 (*The contractor work planning process generates work control documents that lead to safe and efficient completion of work activities*); and CRAD 6 (*Contractor personnel perform work in accordance with approved work control documents*) were partially met. The objective for CRAD 7 (*The Contractor has an established process that requires line management and assessment personnel to perform timely assessments/surveillances of the work planning and control process, including periodic reviews of active and in-development work control documents*) was not met.

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>
3	X			2 OFI's noted
4		X		1 OFI noted
5		X		2 OFI's noted
6		X		2 OFI's noted
7			X	2 OFI's noted

FEEDBACK AND IMPROVEMENT, COMMITMENT 25

The results of this assessment determined that ICP meets the objectives for CRAD 2.2 (*The Contractor has developed and implemented an Operating Experience program that communicates Effective Practices and Lessons Learned during work activities, process reviews, and incident/event analyses to potential users and applied to future work activities*); CRAD 2.3 (*Contractor line management has established and implemented programs and processes to identify, investigate, report, and respond to operational events and incidents and occupational injuries and illnesses*); and CRAD 2.4 (*The Contractor has developed and implemented a formal process to evaluate the quality and usefulness of feedback, and track to resolution performance and safety issues and associated corrective actions*). The objectives for CRAD 1 (*Contractor Line management has established a comprehensive and integrated operational assurance system which encompass all aspects of the processes and activities designed to identify deficiencies and*

February 6 2006
 Site Action Plan

WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

opportunities for improvement, report deficiencies to the responsible managers, complete corrective actions, and share in lessons learned effectively across all aspects of operation) and CRAD 2.1 (Contractor Line management has established a rigorous and credible assessment program that evaluates the adequacy of programs, processes, and performance on a recurring basis. Formal mechanisms and processes have been established for collecting both qualitative and quantitative information on performance and this information is effectively used as the basis for informed management decisions to improve performance) were partially met. 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 OFI's noted
2.1		X		2 OFI's noted
2.2	X			No OFI's noted
2.3	X			No OFI's noted
2.4	X			No OFI's noted

This assessment was completed and submitted as requested by Department of Energy's Implementation Plan Commitment 23 and Commitment 25 for Defense Nuclear Facilities Safety Board Recommendation 2004-1, *Oversight of Complex, High-Hazard Nuclear Operations*; Request for Action (OS-QSD-05-13); E. M. Sellers, December 2, 2005. Due to the short amount of time to prepare and complete this assessment and the limited amount of actual work occurring during the assessment period, findings are based upon a limited sample size.

The most significant findings involve: (1) situations where personnel failed to follow work control documents as written (one of these involved a routine task that is performed typically three times a week), (2) excessive reliance on maintenance planners to identify hazards and establish controls for maintenance work without input or review from subject matter experts, and (3) needed improvements in the conduct of self-assessments. Additionally, there appears to be an excessive amount of unscheduled/emergent work that is added to the planned work schedules. This increases worker and supervisor frustration, impacts craft utilization and has the potential to create error likely situations.

These areas of improvement appear to stem from the ineffective implementation of existing programs and processes. Programs, such as the Safety Assessment Center and Executive Safety Review Board, have been implemented for a short period of time and the Site has not been able to fully realize the feedback and improvement value inherently imbedded. In another area, the process outlined within MCP-3562, *Hazard Identification Analysis and Control of Operational Activities*, provides a foundation for a highly rigorous hazard identification program for the development of operating procedures. This same rigor is not imposed upon the development of work documents.

February 6 2006
Site Action Plan
WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

These, and other, programs and processes are in themselves identified as Good Practices later in this document. This evaluation determined that the issues identified from the CRADs of Commitments #23 and 25 are implementation related, not program breakdowns.

February 6 2006
Site Action Plan
WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

SECTION I – DOE Oversight

SECTION II – CWI-ICP

Performance Objective WPC-3: Work Control Program Documentation

When CWI began work on the ICP in May 2005, the work control program documentation that was in effect at the INL remained in effect to provide a framework within which CWI could conduct business under the new, performance based contract. The document hierarchy which existed at the start of the contract continues to be in effect today.

The controlling documents (STD-101, *Integrated Work Control Process*, MCP-3192, *Hazard Identification Analysis and Control of Operational Activities*, and GDE-6210, *Maintenance Guide*) describe and establish requirements for initiating, analyzing and developing work control documents, including job hazard analyses.

There are several different document types used for control of work, including three levels of maintenance work orders (minor maintenance, expedited maintenance, or planned maintenance each according to increasing hazards, complexity and risk), project work orders and operating procedures. Levels of review and approval are established for each of these work control documents in their respective MCPs, STDs and other company-level procedures. The choice of which work control document is used is a function of the organization performing the work, the nature of the work (operations, corrective maintenance [e.g. repair], routine or preventive maintenance [e.g. calibration], D&D, construction and environmental restoration), as well as the degree of risk, hazards and complexity of the work.

Subcontractor work is controlled using project work orders and is subject to the same level of control as that used by CWI organizations, except as noted elsewhere in this report.

Extensive training and qualification requirements exist for crafts and operations personnel. These training topics involve company requirements, craft and operations skills and qualifications, safety and health training and other relevant topics. In addition, many positions, such as maintenance personnel, have core, position specific and facility specific training requirements. Training and qualification requirements also exist for work control managers and planners as well as for other line managers involved in the work control process. Auditable training records are maintained on a web-based system (*TRAIN*) to which first line supervisors and above have access to assure that crafts, technicians, operators, planners, safety subject matter experts and line managers are trained and qualified.

Turnover requirements exist for transfer of responsibilities of first line supervisors in operations and maintenance. Turnovers are used in operations environments as required in MCP-2980. This MCP outlines the process and requirements for recording shiftily/daily activities. Operations personnel promptly record information regarding activities or events for each key position throughout the shift to ensure the accuracy of the entry. Maintenance criteria for turnover are located in STD-101 (chapter 6) and GDE 6210 (chapter 10).

February 6 2006
 Site Action Plan
 WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

These documents provide direction regarding interfaces and work control coordination, work boundaries, system operability and testing turnover of physical tasks as well as personnel.

Mechanisms exist to collect and utilize lessons learned and feedback from work activities to be used in planning future activities. ICP uses the same lessons learned database that existed at the INL prior to the contract change that is now shared with the INL. Planners are trained in and have access to this database for use in preparing work packages. In some case (e.g. for construction projects), lessons learned were maintained in hard copy and were found to be functional, but were cumbersome to use. Construction projects also lack mechanisms to track and ensure incorporation of post-work review lessons learned on projects related to Voluntary Consent Orders. Furthermore, the assessment identified weaknesses in post-task feedback responses for field operations and maintenance tasks.

Opportunity for Improvement #1

The requirements for periodic review of JSAs in MCP-135 REV 17, Creating, Modifying, And Canceling Procedures and Other DMCS-Controlled Documents, and the requirements in PRD-25, Activity Level Hazard Identification, Analysis and Control need to be evaluated and the procedure(s) needs to be revised as necessary to provide a correct and consistent periodic review frequency. In addition, a review of JSAs needs to be performed to ensure that the periodic JSA reviews are performed at the proper frequency.

CWI Action	Deliverable	Due Date	Owner/Org
Revise MCP-135 REV 17 to provide correct and consistent periodic review frequencies, as applicable.	Evaluation and revision of the MCP-135 REV 17 procedure	3/1/06	Bill Grace Director, Industrial Safety
Ensure JSAs have been reviewed within the required periodic review frequency.	Verification that JSAs have been reviewed within the required periodic review frequency.	5/1/06	Area Project Managers

Responsible Manager: Bill Grace, Director – Industrial Safety

February 6 2006
 Site Action Plan
 WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #2

To support the development of ensuring appropriate changes are made to the controlling documents: STD-101, *Integrated Work Control Process*, and GDE-6210, *Maintenance Guide*. A review of the feedback process is warranted. The results of this review will be integrated into improvements to the documents.

CWI Action	Deliverable	Due Date	Owner/Org
Perform an in depth review of the feedback process for work activities and recommend process performance improvements in this area, as appropriate.	Formal evaluation of the feedback and improvement processes, including recommendations for process improvements.	3/1/06	William J. Johnson, COO

Responsible Manager: William J. Johnson, Chief Operating Officer

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

PDD-1004, *Integrated Safety Management System*, is the program document that describes the flow down of ISMS requirements from the contractual level (ISMS DEAR Clauses and DOE policies and orders) to implementing documents. Work planning and control activity definition for maintenance work is described in STD-101, *Integrated Work Control Process*,

GDE-6210, *Maintenance Guide*, and GDE-6212, *Hazard Mitigation Guide for Integrated Work Control Process*, whereas operating activities are governed by MCP-3562, *Hazard Identification Analysis and Control of Operational Activities*.

Maintenance activity planning involves receipt of a request to perform work and assignment of the request to a maintenance expediter or planner to prepare work documents. Initial discussions of work scope, identification of a team to participate in work package development and walk downs and hazard analyses are primarily performed or led by maintenance planners. For planned and project maintenance work orders, planners perform hazard analysis and identification of controls by filling out a Hazards Profile Screening Checklist (HPSC), Form 430.10. In completing this computer-based checklist, planners use the information obtained during the scope of work development and review of facility documents (e.g., the Facility Hazards List (FHL), equipment history, Documented Safety Analyses (DSA), Fire Hazard Assessments (FHA), environmental permits. Based on the planner's input into the HPSC, control sets are generated as are subject matter expert reviews. This process places a very heavy burden on planners to properly identify the right set of hazards. If a planner fails to identify a hazard, there is no additional review of the package by a SME to correct the package or to involve the SME in the walk down process.

February 6 2006
Site Action Plan
WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

For expedited maintenance work orders and minor maintenance work orders, no HPSC is required by STD-101 or GDE-6210, though other hazard analysis approaches are used, including job safety analyses (JSA). Minor maintenance work is restricted to a less hazardous set of activities by using a specified list of circumstances for which the work may not be performed as minor maintenance.

In contrast, MCP-3562 requires that line managers perform screening activities to identify hazards for operational activities and that they review and approve JSAs, determine whether further analysis is needed and designate appropriate individuals to participate in the team that will further analyze the hazards, the Hazard Evaluation Group (HEG). One issue involving improper flow down of CWI requirements for periodic reviews of Job Safety Analysis (JSAs) was identified as part of a recent Project Evaluation Board (PEB) assessment. This PEB assessment noted that several JSAs were overdue for periodic review. Actions were initiated to correct the problem of having JSAs overdue for review. MCP-3562 provides line managers with a detailed process for performing hazard screening for operational activities that includes hazards related to the task, the facility(ies) in which the task will be performed, potential human errors, lessons learned information and error precursor management. Similar detail is provided for the HEG in analyzing hazards, performing walk downs, using standards to mitigate hazards and other related activities. MCP-3562 also requires that line managers select hazard mitigation according to the hierarchy of engineering controls, administrative controls or PPE.

This assessment team concludes from this difference in approaches that STD-101 and GDE-6210:

- Potentially omit subject matter experts in reviewing or approving maintenance work packages after the hazards and controls are established by the planner,
- do not ensure that line managers designate the members of the team assigned to evaluate the hazards (as does MCP-3562),
- may not ensure that the team so designated acts as a team when evaluating the hazards (individuals may contribute separately to the analysis without meeting together in a table top review or during a walk down),
- permit practices at ICP facilities that rely too heavily on table top reviews instead of walk downs,
- do not explicitly establish a preferred hierarchy of controls (neither MCP-3562, STD-101 nor GDE-6210 mention hazard removal as a part of the preferred hierarchy of controls)
- are written to make maintenance planning for hazard identification, analysis and control an expert-based approach relying on maintenance planners as the primary source of expertise, even though planners are not experts in Documented Safety Analysis (DSA), Fire Hazard Assessments (FHA), environmental permits, and are not required to be Unreviewed Safety Question (USQ) qualified (although they decide whether a USQ review of maintenance work orders are required).

February 6 2006
Site Action Plan

WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

This assessment identified examples of improperly performed hazard analyses as follows:

- Hazards for the planned work were not properly identified and controlled in INTEC WO 60004096, emergency/exit light replacement,
- INTEC JSA-1128, Fuel Oil System, used in conjunction with TPR-7194, Fuel Oil System for transferring fuel oil from a tanker truck to CPP-701 did not identify hazards associated with lifting heavy objects and lifting restrictions were not identified in the TPR for worker protection

Hazard control sets at D&D activities are not customized to the exact work being performed.

Hazard control set for Work Order 602907 at RWMC did not identify a LO/TO requirement for the facility air compressor for incorporation into the work package. Although, the work package did require said compressor to be secured and Locked/Tagged. The compressor was secured and locked before any work commenced. The work package development team failed to include said LO/TO in the required hazard set.

Opportunity for Improvement #1

STD-101, *Integrated Work Control Process*, and GDE-6210, *Maintenance Guide* need to be reviewed for possible improvements to correct the issues identified with work document preparation. This review will provide a basis for procedure revisions to improve the quality of these controlling documents. Completion of these actions will result in improved instruction for the development of work control documents.

CWI Action	Deliverable	Due Date	Owner/Org
The Technical Support Services (TSS) will complete a review of STD-101 and GDE-6210 to determine necessary changes and/or training that is necessary to address the issues identified in this assessment	Completed review of procedures.	4/1/06	Michael D. Johnson, Director TSS
	Revised procedures, as applicable, and/or revised training initiated.	5/1/06	Michael D. Johnson, Director TSS

Responsible Manager: Michael D. Johnson, Director – Technical Support Services

February 6 2006
Site Action Plan

WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

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

Work control documents for maintenance are prepared in accordance with STD-101, *Integrated Work Control Processes*, GDE-6210, *Maintenance Guide*, and GDE-6212, *Hazard Mitigation Guide for Integrated Work Control Process*. Operational activity control documents are prepared in accordance with MCP-3562, *Hazard Identification Analysis and Control of Operational Activities*. The team reviewed over fifty maintenance and operations work control documents to determine whether work control documents were written in a manner that lead to safe and efficient completion of work.

Improperly defined scope of work was an issue in only one work order (WO). At INTEC, the scope of work for minor maintenance WO 60004096 was not clearly defined. This WO was intended to replace twenty emergency and exit lights in CPP-666. The assessment team's observations during the pre-evolutionary briefing revealed that the planner and crafts had discussed and agreed to an undocumented change of scope that would have allowed electricians to initially attempt to repair the lights by working on the portion of the lighting that had a voltage of less than 50 volts. If this was not successful, electricians would then replace the light fixtures, which involved work on AC electrical circuitry up to 277 volts. After discussion among electricians, their foreman and the assessment team member observing the pre-evolutionary briefing, the foreman elected to obtain a WO change prior to beginning the work.

Several problems were noted pertaining to maintenance WOs being written in a clear, concise and worker friendly manner. Assessment team members evaluating construction activities generally found that the ALARA and Waste Stream section of construction WOs were difficult to follow. Additionally, three work documents at INTEC did not meet the requirements of STD-101 and GDE-6210. In one case (WO 602485), a warning statement relating to potential mercury contamination was improperly written (it contained action steps contrary to GDE-6210) and was not located immediately prior to the step in which the hazard was encountered. The requirement for fall protection in WO 60095401 was also not located in the procedure immediately before the steps where the hazard was encountered. Finally, WO 60004096 failed to be clear and concise, because the repair/replacement sequencing discussed above was not mentioned in the WO at all.

Work step sequencing appeared to be satisfactory in all but one of the work control documents reviewed. In D&D WO 603430, Note 1 states: "Steps 3 thru 6 may be worked in any order as directed by the job supervisor," however Step 3 is a "Hold Point" and must be performed prior to Step 4. There were several examples of work control documents not adequately incorporating technical and administrative requirements at INTEC and at D&D activities these were:

- Failure to document the quality level of a replacement part and to include the replacement part in the WO materials list (INTEC WO 602185),
- Conducting work on CPP-603 sludge removal during the week of 12/19/05 with a procedure that had expired on 12/04/05,
- Using a JSA for work on CPP-603 sludge removal that was revised in October 2005 without being reviewed by Fire Protection and Industrial Hygiene (which had reviewed the original JSA).

February 6 2006
 Site Action Plan
 WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

Using hazard control sets that were not customized to the exact work being performed for five WOs at D&D facilities. In these cases, WOs identified the use of boilerplate hazard identification and mitigation text, forcing end users (e.g. craft personnel) to determine applicability of hazards.

Work hazards identified in hazard analysis processes were generally found to be properly incorporated into work control documents at INTEC and RWMC and for construction activities, but not for D&D activities, where work hazards, controls, and or "Hold Points" were not identified within four WOs. For example, Review of the RTC WO 602329 identified that the hazard control set required the IH to: (1) conduct an exposure assessments during initial cutting activities, (2) evaluate work activities for repetitive motion concerns, and (3) evaluate noisy work activities and post high noise work areas as appropriate. None of these controls were incorporated into the work steps as required by GDE 6210, Section 6.8.4. It was also noted that the IH review of the work package prior to approval was not performed.

Since GDE-6210 is classified as a guide rather than as a requirements document. Planners are using it to merely for guidance in preparing work control documents, consistent with the definition of a guide in MCP-135, *Creating, Modifying, and Canceling Procedures and Other DMCS-Controlled Document*. GDE-6210 states, in part, "This guide provides detailed *direction* for the implementation of the requirements from STD-101." Classifying GDE-6210 as a guide allows work document preparation inconsistencies and degrades its impact on effecting worker safety.

Opportunity for Improvement #1

Troubleshoot and repair activities were included in a single work document. This resulted in personnel initiating repair efforts without evaluating the fact that a review of the hazards was necessary because the work they would perform was not analyzed as part of the original work document hazard set. This action has initiated an immediate corrective action to require a separation between troubleshooting and repair activities. Long term correction will be provided by incorporating this requirement into the controlling documents STD-101, *Integrated Work Control Process*, and GDE-6210, *Maintenance Guide*.

CWI Action	Deliverable	Due Date	Owner/Org
An Executive Management Directive has been issued for work documents that are prepared for Trouble Shoot and Repair activities requiring the troubleshooting work activities to be separate from the repair activities. This requirement will be incorporated into the work planning procedures at the next revision, but no later than May 2006.	Issuance of Executive Management Directive.	Completed	Michael D. Johnson, Director TSS
	Revision to STD-101 and GDE-6210 to incorporate the requirements of the EMD.	5/1/06	Michael D. Johnson, Director TSS

Responsible Manager: Michael D. Johnson, Director – Technical Support Services

February 6 2006
 Site Action Plan
 WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #2

STD-101, *Integrated Work Control Process*, and GDE-6210, *Maintenance Guide* need to be reviewed for possible improvements to correct the issues identified with work document preparation. This review will provide a basis for procedure revisions to improve the quality of these controlling documents. Completion of these actions will result in improved instruction for the development of work control documents.

CWI Action	Deliverable	Due Date	Owner/Org
The Technical Support Services (TSS) will complete a review of STD-101 and GDE-6210 to determine necessary changes and/or training that is necessary to address the issues identified in this assessment	Completed review of procedures.	4/1/06	Michael D. Johnson, Director TSS
	Revised procedures, as applicable, and/or revised training initiated.	5/1/06	Michael D. Johnson, Director TSS

Responsible Manager: Michael D. Johnson, Director – Technical Support Services

Performance Objective WPC-6: Work Planning and Control Oversight

The assessment team interviewed over sixty CWI and subcontractor personnel associated with over 50 jobs and found that first line supervisors and workers are knowledgeable of their work control documents. Training of ICP personnel is recorded in a computerized system, TRAIN. Supervisors and foremen have access to TRAIN to allow them to determine whether personnel assigned to the jobs they supervise meet all relevant training requirements, and interviews revealed that supervisors were knowledgeable about how to access TRAIN to check personnel training records. Based on a sample of the persons associated with the work reviewed, most personnel met all applicable training and qualification requirements. Some examples of individuals who did not meet training and qualification requirements were identified at RWMC and at D&D activities. An electrician at RWMC had not received RWMC Electrician MTELRW0000 (8 of 13 qualifications and courses needed). At TAN, one D&D Foreman directing work in the field and conducting pre-job briefings did not have the required qualifications (QLPREJOB, Performing Pre-Job Briefings and QLMNTJSF, INEEL Job Supervisor/Forman). In addition, TRAIN system records showed that one of the D&D supervisors at RTC did not have the pre-job briefing qualification (QLPREJOB). Interviews revealed that he had completed this training, but that the record of his training had been misplaced. Based on a sampling of the persons associated with the work reviewed, all personnel met medical requirements.

Work at ICP is authorized by operations authority, which reviews and authorizes all work control documents prior to commencement of work. Work is scheduled using plan of the week (POW) and plan of the day (POD) formats. At POW/POD meetings, work is evaluated at each facility and/or site to ensure that work activities of one scope do not adversely affect the safe work of another.

February 6 2006
Site Action Plan

WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

At one facility, foremen reported a considerable degree of frustration associated with a general lack of adherence to original/early versions of the POW and POD. Emergent work (e.g. due to equipment failures) is properly added to the POD to be authorized before working as described above, but foreman frequently must change priorities to meet deletions and additions to the schedule. Foremen report that they routinely attempt to prepare well in advance for jobs when they appear on POW/POD. Such preparations include work package review, identification and acquisition of replacement parts and materials and interfaces with operations to ensure systems and equipment are in a condition ready to work. When schedule changes occur, early preparations for deleted jobs are put on hold and hurried preparations for added jobs begins in order to ensure crafts are fully utilized. While foremen report they are not beginning work in unsafe conditions, the impact of frequent schedule changes is increased risk from more error-likely situations. That facility's maintenance management is aware of this problem, tracks adherence to POW schedules and continues to attempt to work this issue. Lack of rigorous adherence to POW/POD schedules increases frustration, impacts craft and labor effort and increases error-likely situations.

Even though the assessment team observed effective pre-evolutionary briefings took place in nearly all cases, the RWMC Site Area Director indicated that he is not fully satisfied with the present execution of this process, noting that management is presently working with their staff to upgrade the presentation mode of associated briefings. At INTEC, a worker performing work on 12/20/05 under INTEC WO 602425 did not receive the required pre-job briefing, and the pre-job briefing form for INTEC WO 602425 was not properly filled out by the foreman who performed the briefing on 12/14/05. In addition, at a TAN D&D activity, completed pre job briefing forms for WO 600413 had some missing pages and missing information.

Adherence to WO and operating procedures needs improvement. This condition was particularly disappointing, since ICP had been in a work stand down due to a series of recent events and occurrences. During the stand down, ICP management emphasized (among other things) the requirement for all workers to follow written instructions or to stop work if unexpected conditions arose and obtain a change to work documents. Several examples of procedural noncompliance observed across ICP as follows:

- An INTEC Utility Operator and Fuel Oil Subcontractor did not follow TPR-7194, Fuel Oil System, as written to address the additional alignments needed by the Truck Driver to support continued pumping from tanker sections. This procedure is performed up to several times each week during the cool weather, but the need to stop and revise the procedure to allow the actions taken had not been identified.
- At RWMC, Steps 3, 4, 5 on the data sheet for procedure TRE-30 were not initialed or dated as required on the form. Although the data had been taken, the performer did not complete the form. This work package was signed off as complete by management.
- The TAN primary authorized employee (PAE) documented a correctly completed LOTO for TAN Area Firewater Pump FP-P-4 in the wrong place in the work package, leaving the step for the LOTO Hold Point in W.O. 603004 blank. Subsequently, crafts started work even though the PAE had not signed this Hold Point.

February 6 2006

Site Action Plan

WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

- Two RWMC employees keyed up their radio (e.g. transmitted) within an exclusion zone, contrary to the precaution in TPR-7417 that prohibited radio transmission in the marked exclusion area.
- During the conduct of RWMC procedure TPR-7417, maintenance personnel failed to wear safety glasses as required. The operator stopped work until safety glasses were worn as prescribed.
- During the conduct of RWMC procedure TPR-7417 an operator reactivated a drain valve before making notification to management as required by step 4.2.6 of MCP 2978, *Control of Equipment and System Status* which states in part "Reposition components found out of position only upon approval from the cognizant manager/supervisor". The valve had been de-energized (unplugged) but was not re-energized and placed back into service following installation of heat tracing.

The assessment team did not observe any conditions that warranted stop work for safety reasons. During interviews, first line supervisors and workers demonstrated a good understanding of their stop work authority.

STD-101, *Integrated Work Control Process*, discusses the use of status logs with no prescribed direction as to what is desired or required, and GDE-6210, *Maintenance Guide*, describes "Work Status" place holders. In practice, there was a wide variety of methods used to document work status, including work status logs, procedure step annotations and personal logbooks. In most cases, work control documents contained adequate documentation (i.e., work status log) regarding work status. However, no construction documents included provisions for documenting work status. Two work packages for work done by CWI at RTC, WOs 603048 and 602715, had completed steps that were not properly signed off.

Lessons learned are being implemented through incorporation directly into work orders or included in the hazard controls associated with the work order, discussed during pre-job briefings, or presented during all hand briefings/safety phases. The feedback process uses more than one approach to track feedback to closure, depending on the different work order types (PM or CM), but both systems meet the requirements for incorporation of lessons learned into work orders. Planners interviewed know how to access the INL lessons learned database, and search the database for applicable lessons learned based on the scope of their work order.

One example of an incomplete work order record was identified. INTEC WO 602185 involved the repair of PCV-118, which was leaking nitric acid. (See CRAD 23.3.4) While performing the work, INTEC personnel discovered that PI-218-2 was not functioning properly. PI-218-2 was replaced under this WO using a work order change (WOC). The WOC for the PI-218-2 replacement was processed, the work completed and the package closed. The package was sent to be scanned for record retention in EDMS. Due to an oversight during the scanning process, the WOC was not scanned into EDMS.

Some crafts reported that they did not find the Lessons Learned (LL) data base to be a usable tool, due to the scarcity of LLs that appear in the LL database for their facility (RWMC). The database spans five years and has only 27 LL entries. During interviews, some ICP personnel reported that they did not find the ICARE data base to be a usable tool because they do not know how to find issue of interest. Craft personnel need training to search the ICARE system by topic.

February 6 2006
 Site Action Plan
 WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #1

CWI considers the issue of procedure non compliance to be a serious item. A comprehensive cause analysis will be developed to address this issue and to identify needed actions/improvements.

CWI Action	Deliverable	Due Date	Owner/Org
The issue of procedure non compliance is a serious concern of ICP management. A comprehensive cause analysis is being developed that will identify specific actions that are necessary to correct this adverse trend.	Issuance of completed comprehensive causal analysis	Complete	William J. Johnson, COO

Responsible Manager: William J. Johnson, Chief Operating Officer

Opportunity for Improvement #2

CWI will issue a detailed corrective action plan to address the issues identified in the casual analysis described above. The completion of the actions will receive management priority.

CWI Action	Deliverable	Due Date	Owner/Org
Issue a corrective action plan to address the casual analysis for procedure non compliance which is a serious concern of ICP management	A corrective action plan will be issued to address the issues identified in the comprehensive causal analysis	2/1/06	William J. Johnson, COO
The completion of all actions in the corrective action plan to correct the adverse trend. of procedure non-compliance will receive CWI management priority.	Actions identified in the corrective action plan will be completed	5/1/06	William J. Johnson, COO

Responsible Manager: William J. Johnson, Chief Operating Officer

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

The ICP has established procedures for the conduct of independent and self assessment activities. The Integrated Assessment Program, which is described in PDD-1064, "Integrated Assessment Program," is a comprehensive, integrated, risk-based approach for managing assessments. Integrated assessment includes activities managed under the following company requirement documents:

- MCP-9172, *Developing, Integrating, and Implementing Assessment Plans and Schedules*
- LST-202, *Company Level Required Assessments*
- GDE-203, *Planning, Scheduling, and Performing Assessments*
- PDD-124, *Assessor and Lead Assessor Training and Qualification Program*
- MCP-552, *Performing Independent Assessments*
- MCP-8, *Performing Management Assessments and Management Reviews*
- MCP-1221, *Performing Inspections and Surveillances*
- CTR-69, *Charter for the Project Evaluation Board (Revised 2/3/06, PDD-148, Project Evaluation Board)*

Other assessment programs exist, such as CTR-154, *INTEC Senior Supervisory Watch Program*, (as well as similar SSW programs at other ICP facilities) and CTR-175, *INTEC Management Observation Program (MOP)*, which is unique to INTEC.

Taken together, a system is therefore in place to provide a means of monitoring and evaluating all work performed, including work performed by subcontractors. Implementation of this system, however, is not consistent across the ICP. Although assessments are being performed, including of subcontractors, the evidence suggests a need to pursue a more effective implementation of the existing program. This is demonstrated by:

- The lack of or limited scope of management assessments performed at the project level.
- Limited management observations and senior supervisory watches at RWMC.
- The lack of comprehensive functional area assessments for many areas.
- The lack of comprehensive assessments at the project level.
- The focus of many assessments on administrative reviews instead of operational reviews.
- Identified problems (not ICARE issues) not having corrective actions documented.

February 6 2006
Site Action Plan
WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

A schedule exists for ICP assessments as the ICP Integrated Assessment Schedule database. Management assessments and independent assessments of the ISMS program are required to be performed in LST-202, as are surveillances of work in progress. Conformance to this schedule on an ICP-wide basis was not examined.

Line managers periodically perform surveillances, and these surveillances include the observations of, pre-evolution briefings and work performed, but there did not appear to be strong evidence that observations of job walk downs and JHA walk downs/meetings was included in the scope of these surveillances. For example, the assessment team found that at D&D activities, line management assessments did not assess the full spectrum of the work control process. In addition, while the scope of MOP observations at INTEC and SSW observations are particularly focused on work in progress as well as operational preparations for work, they are not directed toward the work package planning process.

The team reviewed completed LST-202 surveillances and the INTEC Management Observation Program Observed Evolution forms / Work Activities and other documents. While the above mentioned oversight programs and activities were valuable and included many criteria important to work control, none of these programs included reviews of completed work orders within the scope of their review criteria. Furthermore, at INTEC and D&D activities, the scope of the completed surveillances and observations that the team reviewed did not include approved work orders.

The primary means of line management oversight of in-development work control documents was line manager review and approval through the implementation of STD-101, *Integrated Work Control Process*. These reviews and approvals are performed by maintenance managers, general foreman (e.g. construction), and maintenance supervisors for in-development work orders. Line managers reviewed approved work orders during Senior Supervisory Watch work activities. There are no scheduled or planned assessments or surveillances of active or in-development work control documents by line managers in existing INTEC oversight programs.

Trending is tracked and reported monthly in accordance with the Safety Performance Objectives, Measures, and Commitments (SPOMC). Also regarding trending, the results of work control oversight activities, the 2005 ICP ISMS Annual Evaluation Report found that:

- Assessments are being scheduled and managed in at least three databases, making it difficult to coordinate planned assessments and to analyze issues for trends
- Not all required areas are performing assessments to support MCP-1175, *Analyzing ESH&QA Performance*. These assessments provide quarterly analysis of ISMS integrity and ESH&QA performance. Area analysis is needed to identify possible trend and recurring issues.

February 6 2006
 Site Action Plan
 WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #1

To improve the quality and quantity of self-assessments and to increase management involvement in the self-assessment program the program will be critically evaluated and needed changes that provide improved participation while maintaining program quality will be implemented.

CWI Action	Deliverable	Due Date	Owner/Org
A revised self assessment program structure will be developed by a selected team of ICP managers who have an extensive background in self assessment program performance. This program will be presented to and approved by the ESRB. Upon approval by the ESRB ICP procedures will be revised, where necessary to implement the revised program.	Presentation to ESRB of revised self assessment program.	2/25/06	Michael D. Johnson, Director, TSS
	Implementation of revised procedures following ESRB approval.	3/10/06	Michael D. Johnson, Director, TSS

Responsible Manager: Michael D. Johnson, Director – Technical Support Services

Opportunity for Improvement #2

To ensure prompt implementation of self-assessment program improvements the Project Evaluation Board will conduct a comprehensive evaluation of self-assessment performance.

CWI Action	Deliverable	Due Date	Owner/Org
The Project Evaluation Board will conduct a comprehensive evaluation of self assessment performance at all ICP areas to verify proper implementation and execution of the revised assessment program structure.	Issuance of assessment report on effectiveness of revised assessment program structure..	7/1/06	Brent Rankin, ESH&Q

Responsible Manager: Jim Gregory, Manager, Project Evaluation Board.

February 6 2006

Site Action Plan

WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

Performance Objective F&I-1: Contractor Program Documentation

The ICP contract does not include the requirement to implement a formal “Contractor Assurance System” in accordance with DOE O 226.1, *Implementation of Department of Energy Oversight Policy*. However, the information contained in PDD-1004, *Integrated Safety Management System (ISMS)*, Revision 9 Draft, addresses the activities that are included in the INL’s formal Contractor Assurance System and meets the review and approval requirements outlined in this objective. This integrated operational assurance process, with other program description documents, management control procedures, and standards, also includes assessment activities, other structured operational awareness activities, and the event reporting processes.

The program monitors and evaluates all work performed under the contract, including that of subcontractors. These activities occur through a variety of mechanisms. On a daily basis, the Safety Assessment Center (SAC) provides for senior management discussion on the previous day’s work activities and safety issues throughout ICP. A monthly SAC report is issued providing a 12-month rolling trend analysis to each of eleven high focus project areas pertaining to event severity indexes (including good work practices) and ISMS core function breakdowns, in addition to a listing of the issues reported regarding the project area for the previous month. In addition, a monthly Safety Performance Objectives, Measures and Commitments (SPOMC) dashboard report is issued to report on current fiscal year status of operational issues compared against ICP goals.

On a quarterly basis, the Safety Performance Objectives, Measures, and Commitments (SPOMC) documents progress pertaining to the DOE approved performance tracking data points. On an annual basis, the ISMS Annual Evaluation and SPOMC review provide even further insight to current status and performance trending by both the Contractor and subcontractors. The company PDD-1061, *Integrated Assessment Program* is in place, and is supplemented by PDD-1005, *Line Management and Operations Manual*. Schedules are in place for FY 2006 to support required assessments and surveillances.

While the processes for the various assessments and other structured operational awareness activities are outlined in their respective program documents, the quantity of documents potentially governing a single assessment activity is excessive. Each step from scheduling the assessment to planning, investigating, and reporting, with capillary documents for each type of assessment and resultant outcomes, has its own governing document. The quantity of requirements and in some cases unnecessary rigor spread amongst the number of requirement documents causes inconsistent performance and/or unintentional, non-compliant performance.

Implementation of the self-assessment program is not consistent or adequately effective across the ICP. The program is in place to provide a means of monitoring and evaluating work and assessments being performed, including oversight of subcontractors. However, evidence shows a need to pursue a more effective/efficient implementation of the self-assessment program. This is demonstrated by:

- The lack of or limited scope of management assessments performed at the project level.
- Limited management observations and senior supervisory watches at RWMC.

February 6 2006
 Site Action Plan
 WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

- The lack of comprehensive functional area assessments for many areas.
- The lack of comprehensive assessments at the project level.
- The focus of many assessments is on administrative reviews instead of operational reviews.
- Identified problems not having corrective actions documented that are not sufficiently serious to warrant tracking in the ICARE system

All products of the program are documented and available to DOE line management. Some of these documents, such as the PDD-1004, ISMS Annual Evaluation, and SPOMC Reports are included in the contract performance evaluation.

The Contractor has established sufficient processes for measuring the effectiveness of the program however; the implementation of the program across ICP is inconsistent and cumbersome.

The requirements and process for establishing and implementing the appropriate training and experience requirements for assurance personnel are outlined in company program documents and reinforced in implementation of PDD-1004.

Opportunity for Improvement #1

To improve the quality and quantity of self-assessments and to increase management involvement in the self-assessment program the program will be critically evaluated and needed changes that provide improved participation while maintaining program quality will be implemented.

CWI Action	Deliverable	Due Date	Owner/Org
A revised self assessment program structure will be developed by a selected team of ICP managers who have an extensive background in self assessment program performance. This program will be presented to and approved by the ESRB. Upon approval by the ESRB ICP procedures will be revised, where necessary to implement the revised program.	Presentation to ESRB of revised self assessment program.	2/25/06	Michael D. Johnson, Director, TSS
	Implementation of revised procedures following ESRB approval.	3/10/06	Michael D. Johnson, Director, TSS

Responsible Manager: Michael D. Johnson, Director – Technical Support Services

February 6 2006
 Site Action Plan
 WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

Opportunity for Improvement #2

To ensure prompt implementation of self-assessment program improvements the Project Evaluation Board will conduct a comprehensive evaluation of self-assessment performance.

CWI Action	Deliverable	Due Date	Owner/Org
The Project Evaluation Board will conduct a comprehensive evaluation of self assessment performance at all ICP areas to verify proper implementation and execution of the revised assessment program structure.	Issuance of assessment report on effectiveness of revised assessment program structure..	7/1/06	Brent Rankin, ESH&Q

Responsible Manager: Jim Gregory, Manager - Project Evaluation Board.

Performance Objective F&I-2.1: Assessments and Performance Indicators

The Integrated Assessment Program, based on PDD-1064, *Integrated Assessment Program*, LST-202, *Company-Level Required Assessments*, and inputs from Functional Area Managers and Subject Matter Experts, establishes the assessment program for functional areas, programs, facilities, and organizational elements. The scope and frequency of these assessments is determined based upon regulatory requirements documents in conjunction with an analysis of risk when applicable. The level of rigor is outlined in the implementing documents governing the performance of the different types of assessments, i.e. Management vs. Independent. As discussed previously in Objective F&I-1, this implementation is cumbersome and inconsistently implemented in the field. As a result, this objective is evaluated as only partially met.

The Project Evaluation Board (PEB) is established at ICP to provide the function of independent internal assessments. Assessments are identified, planned and performed by this group which has the authority and independence from line management to support unbiased evaluations. To date the PEB assessments have been focused on specific problems or issues instead of comprehensive project assessments. The 2006 PEB schedule has included these project assessments.

The SPOMC (discussed previously) is approved by line management and DOE. It provides a measure to indicate how work is being performed. This includes the performance objectives and the expectations set by senior management. Other performance monitoring programs include the SAC and Executive Safety Review Board (ESRB) at the senior management level with other process designed to capture and gather issues at the project and supervisor's level such as the Hazard Review Board (HRB). ICP management policy continuously reinforces the ISMS process of Feedback and Improvement to all personnel on Site. This provides multiple avenues of input by which issues, good or bad, are reported to the necessary programs for analysis and trending.

February 6 2006
 Site Action Plan
 WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

The SAC provides the method of sharing good practices and lessons learned on a daily basis to and from all line managers. The information discussed in these daily meetings is tracked and trended independently and provided to each project area on a monthly basis. In addition, this information is used in the occurrence reporting process and program quarterly evaluation in the review of positive or negative trends. The ESRB also causes issue tracking and trending to be evaluated for issues that are of concern and that may affect safety, performance objectives, or goals. The SPOMC, Monthly ICP Injury/Illness Report, and the Monthly Dashboard data provide the information necessary to identify current status relative to goals and objectives agreed to by CWI and DOE.

Opportunity for Improvement #1

To ensure the Project Evaluation Board has appropriate resources to accomplish scheduled assessments for CY 2006 the existing schedule will be upgraded to provide resource loading.

CWI Action	Deliverable	Due Date	Owner/Org
The Project Evaluation Board (PEB) has established a schedule for CY 2006 that includes project assessments as well as program assessments. To improve the PEB capabilities to perform project assessments on an ongoing basis a review will be performed regarding PEB resources, scope and frequency of assessments.	Development of resource loaded annual schedule	3/30/06	Brent Rankin, ESH&Q

Responsible Manager: Jim Gregory, Manager - Project Evaluation Board.

Opportunity for Improvement #2

To ensure proper development of self-assessment schedules actions will be taken to update the current assessment requirements document. In addition, to provide for improved self-assessment schedule development in the future, annual updates to the assessment requirements document will be issued well in advance of the FY schedule development needs.

CWI Action	Deliverable	Due Date	Owner/Org
As required by MCP-9172, <i>Developing, Integrating, and Implementing Assessment Plans and Schedules</i> , a revision to LST-202 will be issued. In addition future revisions to LST-202 will be issued in July of each year to support the development of FY assessment schedules.	Revision of LST-202	2/25/06	Brent Rankin, ESH&Q
	Issue LST-202 Update for FY 07	7/30/06	Brent Rankin, ESH&Q

Responsible Manager: Craig Kvamme, Manager – Performance Assurance

Performance Objective F&I-2.2: Operating Experience

Formal processes are in place to identify applicable lessons learned from external and internal sources. The processes utilize communication and distribution methods such as the site intranet and e-mail systems, discussion in the SAC, the Lessons Learned Web Site and presentation at job briefings.

Lessons learned are obtained from and provided to external sources such as the DOE Lessons Learned Web and a corporate web for use and sharing at other sites.

ICP has instituted the Voluntary Protection Program (VPP), and its Employee Safety Teams (EST) and Changing Our Behavior Reduces Accidents (COBRA) program that provide the mechanisms necessary to solicit feedback and suggestions from the workforce on any topic for which a need is felt.

No opportunities for improvement noted.

Performance Objective F&I-2.3: Event Reporting

Formal processes are in place to investigate, report, and respond to operational events, incidents and occupational injuries and illnesses. MCP-190, *Event Investigation and Occurrence Reporting*, contains the instructions for documenting and reporting occurrences. In conjunction with reporting these events corrective actions are documented and tracked as specified in MCP-598, *Corrective Action System*. Cause analysis is performed in accordance with a formal process as specified in STD-1113, *Cause Analysis and Corrective Action Development*, by qualified personnel as specified in PDD-1114, *Cause Analyst Training and Qualification Program*.

The SAC as described above provides a centralized process for timely management involvement in routine reporting, reviewing, and assigning follow-up on safety events; supports safety performance monitoring; and provides a resource for periodic safety performance summary reporting. Data is collected about events and conditions that have the potential for adversely affecting safe operations now and in the future, as well as good practices.

The ESRB as described above is established to oversee the identification, analysis, reporting, and corrective actions of safety significant events, issues with programmatic implications, and other issues as determined necessary. The ESRB also causes issue tracking and trending to be evaluated for issues that are of concern and that may affect safety, performance objectives, or goals. The SPOMC, Monthly ICP Injury/Illness Report, and the Monthly Dashboard data provide the information necessary to identify current status relative to goals and objectives agreed to by CWI and DOE.

February 6 2006

Site Action Plan

WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

Lessons learned are obtained from and provided to external sources such as the DOE Lessons Learned Web and a corporate web for use and sharing at other sites consistent with the requirements of MCP-192, *Processing Lessons Learned and External Operating Experience*.

No opportunities for improvement noted.

Performance Objective F&I-2.4: Issues Management

The ICP utilizes several programs that comprise satisfaction of this objective. ICARE system is the formal process that captures not only deficiencies, but other noncompliance issues, program commitments and their respective data for tracking. The ORPS reporting system is annotated to use this program for corrective action tracking as well. Event cause analysis and corrective actions are also governed by their respective program documents.

With regard to corrective action plans, they are typically limited in scope and without regard to existing action items in place for other process improvements. Some are developed without regards to similar or cross-cutting effects of other corrective action plans. This method tends to overload the system with duplicative or similar action items being resolved by different groups not knowing of the others' efforts, delaying final achievement of completion.

MCP-598, *The Issues Management Program and Corrective Action System*, MCP-190, *Event Investigation and Occurrence Reporting*, and MCP-553, *Stop Work Authority*, together provide the basic process mechanisms to identify, take action, and resolve issues.

MCP-1269, *Establishing, Monitoring, and Reporting ESH&QA Performance Objectives, Goals, And Measures*, MCP-1175, *Analyzing ESH&QA Performance*, and MCP-598 program documents require review and analysis of deficiencies. Line management is provided the tools and resources to perform this task. Continued management attention is needed to ensure these processes are effective and rigorous.

Communication of issues up the management chain does occur. While the lines of communication have gone through transition pains, management is attentive to the needs of the program.

Feedback programs are integrated and analyzed to identify trends, issues, and potential repeat occurrences. This analysis is performed through several methods. These processes need continued attention to ensure identification of potential significant problems before they become events.

ICP program document PDD-1114, *Cause Analyst Training and Qualification Program*, requires the training of employees on corrective action development and causal analysis techniques. Formal cause analysis and corrective action development process are implemented in STD-1113, *Cause Analysis and Corrective Action Development*.

No opportunities for improvement noted.

SECTION V – CWI WP&C and F&I Good Practices

Good Practice(s)	Site Point of Contact
<p>The process outlined within MCP-3562, <i>Hazard Identification Analysis and Control of Operational Activities</i>, is a user friendly concisely developed procedure. The design of this MCP enhances the ability of any individual given the responsibility to generate a new, or modify an existing Operational document. The Hazard Screening Checklist (Appendix B) informs the user of the minimum set of subject matter experts required to participate with the development or modification of an Operational work control document. This approach demonstrates Line Management’s direct involvement with identification of specific individuals that shall assist with the work control process.</p>	<p>James E. Kaylor Department Manager- INTEC, 526-3483</p>
<p>ICP allows use of a “step back” for any person to stop a job without declaring a “stop work”. Step backs permit a “no fault” means for personnel to pause to consider and discuss situations to improve safety without completely stopping a job. The practice appears to have wide acceptance and a beneficial impact on safety thus far.</p>	<p>Bill Grace, Director Industrial Safety, 208-526-1163</p>
<p>The implementation of the Management Observation Program for INTEC has provided improved management involvement in the self assessment program. The program, as intended, meets much of the intent of this review as well as other worthwhile management goals.</p>	<p>William J. Johnson COO, 208-526-7148</p>

February 6 2006

Site Action Plan

WP&C Commitment 23 / F&I Commitment 25 – DNFSB Recommendation 2004-1

Good Practice(s)	Site Point of Contact
<p>The Safety Assessment Center (SAC) provides a centralized process for timely management involvement in routine reporting, reviewing, and assigning follow-up on safety events; supports safety performance monitoring; and provides a resource for periodic safety performance summary reporting. Data is collected about events and conditions that have the potential for adversely affecting safe operations now and in the future, as well as good practices.</p>	<p>Matthew Steffa Manager – Safety Assessment Center, 208-526-7452</p>
<p>The Executive Safety Review Board (ESRB) is established to oversee the identification, analysis, reporting, and corrective actions of safety significant events, issues with programmatic implications, and other issues as determined necessary.</p>	<p>Bruce Schultz Director – ESH&Q Support Programs, 208-526-7439</p>



**Idaho National Laboratory
Action Plan**

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

Executive Summary

Evaluation Process

On December 2, 2005, DOE Idaho Operations Office (DOE-ID) directed Battelle Energy Alliance, LLC (BEA) to perform a self-assessment of work planning and control to meet Commitment 23 of the DOE Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 2004-1. The assessment was performed by a team of BEA managers and subject matter experts, using a Criteria Review and Approach Document (CRAD) supplied by DOE-ID, to determine the adequacy and effectiveness of work planning and control at the Idaho National Laboratory (INL).

The assessment was performed by completing three activities:

- Comparing INL program and process documentation to the criteria listed in the CRADs,
- Evaluating program and process implementation by reviewing the results of internal and external assessments performed since February 1, 2005 (the date of formation of the INL and initiation of the BEA contract), and
- Evaluating performance by reviewing previous assessment reports and performance measurement and analysis reports.

To the extent possible, the assessment included a comparison of the criteria used in the previous assessments to the criteria listed in the DOE CRADs. In some cases, the discussion and results of the assessments were used as evidence that criteria were addressed even if the criteria were not formally specified. Some additional review was performed in cases where specific DOE criteria did not appear to have been addressed.

Overall Evaluation Summary

The assessment concluded that the criteria of the performance objectives identified in the DOE Work Planning and Control CRAD were adequately addressed by the INL program and process documentation. The internal and external assessments reviewed during this evaluation concluded that the program and processes were effectively implemented with the exception of work planning and control oversight which needed improvement. The evaluation ratings were the following:

February 6, 2006
INL Action Plan
WP&C Commitment 23 – DNFSB Recommendation 2004-1

Work Planning and Control		
Performance Objective		Evaluation
WPC-3	Work Planning and Control Program Documentation	Fully Met
WPC-4	Work Activity Definition and Hazard Identification	Fully Met
WPC-5	Work Control Documents	Fully Met
WPC-6	Work Performance	Fully Met
WPC-7	Work Planning and Control Oversight	Partially Met

The assessment identified nine opportunities for improvement (OFIs). Four of the OFIs involved corrective actions for findings identified by the DOE Office of Independent Oversight and Performance Assurance (DOE-OA) assessment performed during FY 2005. Three of the OFIs involved corrective actions for reported noncompliances of Price-Anderson Amendment Act (PAAA) requirements.

The assessment format provided by DOE-ID included an identification of noteworthy practices for each objective. These noteworthy practices were described as those processes and procedures which are worthy of sharing with other sites looking to improve existing processes. Such practices were not identified in the assessment results for two reasons:

- Many of the current INL processes are being consolidated and transformed to more effectively address the needs of the new laboratory, and
- Identifying noteworthy practices requires knowledge of the activities and practices of other sites which INL does not fully possess.

However, INL is willing to share any current or future processes and procedures which may benefit other sites in improving performance.

February 6, 2006
 INL Action Plan
 WP&C Commitment 23 – DNFSB Recommendation 2004-1

Performance Objective WPC-3: Work Planning and Control Program Documentation

Opportunity for Improvement #1

The activity-level work planning and control processes need to be consolidated/transformed to improve risk management and process efficiency and to better meet the needs of the new laboratory focus on research and development.

Action	Deliverable(s)	Due Date	Owner / Organization
Revise work planning and control program and process documentation.	Approved documents	8/1/2006	V. M. Bowen / Facilities and Site Services
Implement revised work planning and control program and processes.	Implementation statements from affected organizations	9/30/2006	

Opportunity for Improvement #2

Human behaviors and performance need improvement to reduce work related injuries and illnesses and to enhance safe work accomplishment.

Action	Deliverable(s)	Due Date	Owner / Organization
Provide integrated behavior based safety/human performance training.	Training rosters showing completion of training	9/30/2006	C. A. Johnson / Infrastructure, Optimization, Integration, and Planning
Implement integrated behavior based safety/human performance processes.	Implementation documents	12/15/2006	

February 6, 2006
 INL Action Plan
 WP&C Commitment 23 – DNFSB Recommendation 2004-1

Performance Objective WPC-4: Work Activity Definition and Hazard Identification

Opportunity for Improvement #1

Analysis of potential radiological hazards associated with non-uniform radiation fields and glovebox failures has not been sufficiently rigorous to ensure that these hazards are adequately controlled. (DOE-OA Assessment, June 2005)

Action	Deliverable	Due Date	Owner / Organization
Complete 15 actions in CATS INEEL-08/19/2005-0001-1	Closure documentation identified in CATS	5/31/2006	C. D. Morgan/ RTC Radiological Controls

Opportunity for Improvement #2

ATR does not have a process for identifying controls for non-radiological hazards for RCTs entering spaces to perform surveys. (DOE-OA Assessment, June 2005)

Action	Deliverable	Due Date	Owner / Organization
Complete 4 actions in CATS INEEL-08/19/2005-0002-1	Closure documentation identified in CATS	10/31/2006	M. B. McDonough/ ATR Operations

Opportunity for Improvement #3

ATR has not established appropriate controls to ensure that all workers are promptly notified of fire alarms in areas where the alarms cannot be heard. (DOE-OA Assessment, June 2005)

Action	Deliverable	Due Date	Owner / Organization
Complete 3 actions in CATS INEEL-08/19/2005-0003-1	Closure documentation identified in CATS	7/07/2006	M. B. McDonough/ ATR Operations

February 6, 2006
 INL Action Plan
 WP&C Commitment 23 – DNFSB Recommendation 2004-1

Opportunity for Improvement #4

INL has not ensured that clear and unambiguous requirements for confined spaces are consistently applied at ATR to minimize the risk to workers, consistent with the intent of OSHA regulations. (DOE-OA Assessment, June 2005)

Action	Deliverable	Due Date	Owner / Organization
Complete 9 actions in CATS INEEL-08/19/2005-0004-I	Closure documentation identified in CATS	8/30/2006	P. L. Hapke / Nuclear Operations ES&H

Opportunity for Improvement #5

Programmatic failure of work planning and hazard control for a radiological evolution at MFC caused unplanned personnel exposures. (INL Internal Assessment).

Action	Deliverable	Due Date	Owner / Organization
Complete 26 actions in NTS-ID-BEA-FMF-2005-0002	Closure documentation identified in NTS	1/30/2006	R. R. Chase / Nuclear Operations Labs and Hot Cells

Performance Objective WPC-5: Work Control Documents

Opportunity for Improvement

Administrative errors identified during the close-out process for maintenance work orders at ATR indicate that the previous corrective actions developed to resolve the errors were not fully effective. (INL Internal Assessment)

Action	Deliverable	Due Date	Owner / Organization
Complete actions in NTS-ID-BEA-ATR-2005-0002	Closure documentation identified in NTS	8/31/2006	J. E. Dwyer/ ATR Operations

February 6, 2006
INL Action Plan
WP&C Commitment 23 – DNFSB Recommendation 2004-1

Performance Objective WPC-6: Work Performance

Opportunity for Improvement

The MFC Nuclear Facility Training and Qualification Program had not adequately implemented. (INL Internal Assessment)

Action	Deliverable	Due Date	Owner / Organization
Complete actions in NTS-ID-BEA-MFC-2005-0001	Closure documentation identified in NTS	6/28/2007	R. R. Chase / Nuclear Operations Labs and Hot Cells

Performance Objective WPC-7: Work Planning and Control Oversight

Two opportunities for improvement relating to WPC-7 are documented in the INL Action Plan for Commitment 25: Feedback and Improvement, F&I-2.

United States Government

Department of Energy

Oak Ridge Office

memorandum

DATE: February 6, 2006

REPLY TO

ATTN OF: EM-94:Kadas

SUBJECT: **ASSESSMENT AND ACTION PLANS FOR DEFENSE NUCLEAR FACILITY
SAFETY BOARD RECOMMENDATION 2004-1, COMMITMENTS 23 AND 25**

TO: Dae Y. Chung, Director, Office of Licensing, EM-24, CLVRLF

Please find attached the Oak Ridge Office (ORO) Environmental Management (EM) final action plans prepared in response to the memoranda dated November 17 and 18, 2005, from Dr. Inés Triay on Commitment 23, Work Planning and Work Control (WP&C); and Commitment 25, Feedback and Improvement (F&I), as identified in the Implementation Plan for the Defense Nuclear Facility Safety Board (DNFSB) Recommendation 2004-1. The attached action plans incorporate comments received from EM-3 on January 26, 2006, and during the 2004-1 WP&C Commitment 23 and F&I Commitment 25 Televideo Conference on January 31, 2006. Also, attached is a compact disk containing the electronic version of the action plans.

If you have any questions, please contact me at (865) 576-0742, Cissy Perkins at (865) 576-2552, or Karen Kadas at (865) 241-2224.


Stephen H. McCracken
Assistant Manager for
Environmental Management

Attachments

cc w/attachments:

T. Evans, EM-3.2, CLVRLF

T. Krietz, EM-3.2, CLVRLF

K. Kadas, EM-94, ORO

H. Monroe, SE-30, ORO

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



Oak Ridge Office – Environmental Management Site Action Plan

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

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

Executive Summary

Evaluation Process

The November 2005 memorandum from U.S. Department of Energy (DOE) Under Secretary David K. Garman provided criteria review and approach documents (CRADs) to be used to assess the status of field office completion of Commitment 23, "Work Planning and Control," as discussed in the Implementation Plan responding to Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1. The purpose of this report is to summarize the results of the U.S. Department of Energy (DOE) Oak Ridge Office (ORO) Environmental Management (EM) program evaluation of Commitment 23 and to describe the corrective actions, as necessary, resulting from reviews of these CRADs.

A principle function of an Integrated Safety Management System (ISMS) directly correlates to Commitment 23: to perform work within controls. DOE ORO has in place ORO M100, Oak Ridge Management System Description (MSD) which incorporates the principles of ISMS. Further, the DOE ORO Office of Environmental Management has a Management System Description document which provides a comprehensive high-level description of the roles and responsibilities within the EM organization to manage its work and to manage the contracts under its responsibility. Also incorporating the foundations of ISM, the description of each management system in the EM MSD includes an identification of the requirements associated with that system as well as reference to the processes used by the EM to fulfill those requirements. The EM MSD is consistent with ORO M 100, and it provides the foundation upon which the EM organization can foster a culture of continuous improvement and effectively integrate the ORO safety philosophy into all aspects of work.

In 2005, each DOE ORO organization conducted a self-assessment of continued compliance with ISMS. Specifically, this self assessment included a review of the following scope elements:

- (1) Work scope, organizational structure, and roles and responsibilities are defined and workers understand their specific job functions.
- (2) For assigned work scope and duties, workers are aware of the specific safety concerns that apply to them (vehicles, plant access, emergencies, etc.)
- (3) For assigned work scope and duties, workers are fully aware of the procedures that they must follow with respect to safety and general requirements of their job.
- (4) Oversight processes which ensure that work is implemented in compliance with defined management controls are implemented.
- (5) A system is in place and is functioning for providing consistent feedback relating to safety goals and management expectations, for improving performance, and from providing Lessons Learned.

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

- (6) DOE line management provides effective and formal oversight of their contractor ISMS program to ensure that hazards are analyzed, controls are developed and that feedback and improvement programs are in place and effective.

In September 2005, an independent assessment was conducted of the DOE ORO ISMS program as a whole. This independent assessment was an implementation review of the DOE ORO ISMS using Phase II CRADs derived from DOE Handbook 3027-99, ISMS Verification Team Leader's Handbook, and the DOE Implementation Plan in response to Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1. The results of the previous self assessments and the following objectives were specifically reviewed:

- DOEs procedures and mechanisms should ensure that work is formally and appropriately authorized and performed safely. DOE line managers should be involved in the review of safety issues and concerns and should have an active role in authorizing and approving work and operations.
- DOE procedures and mechanisms ensure that the hazards are analyzed, controls are developed, and feedback and improvement programs are in place and effective. DOE line managers are using these processes effectively, consistent with ORO FRAM requirements.
- High-reliability principles to establish effective ISM implementation are in place.

Both the self-assessments, as well as the independent assessment, determined that ORO, including EM, continued to effectively implement ISM. The independent assessment stated, in part:

"ORO's ISMS implementation has significantly improved since . . . 2003."

"ORO's self-assessments and contractor reviews accurately depict the state of their respective ISM programs."

Additionally, in October and November 2005, DOE ORO EM conducted Operational Readiness Reviews (ORRs) on projects to be completed by each of two prime contractors: Bechtel Jacobs Company, LLC (BJC) and Foster Wheeler Environmental Corporation (FWENC). These ORRs included independent reviews of DOE ORO EM oversight activities. Management Self Assessments were conducted prior to the initiation of the DOE ORRs. Also, a DNFSB visit occurred in November 2005 which resulted in opportunities for improvement.

During the course of these recent reviews, the work planning and control processes utilized by DOE ORO EM and its contractors were thoroughly assessed. As such, in completing the evaluation of the CRADs for Commitment 23, these recent reviews were referenced to demonstrate compliance with each criterion. Corrective actions for issues related to work planning and control resulting from these reviews have also been included.

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

A Type B investigation is currently underway to evaluate the causes of a recent event. Corrective actions resulting from this investigation will be added to this Site Action Plan, once they have been identified.

Overall Evaluation Summary

The results of this evaluation determined that DOE-ORO-EM meets the objectives for CRAD-1 and CRAD-2 with opportunities for improvement noted in both CRAD assessment areas. BJC and FWENC were found to meet the objectives of CRAD-3 through CRAD-7 with 8 opportunities for improvement noted. The following table provides the results of this evaluation.

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

This evaluation determined that DOE ORO EM, BJC, and FWENC have programs in place to meet the WP&C CRADs when applied to various work (e.g., operations, maintenance, construction/destruction, research and development, etc.) being performed at ORO EM projects, and its oversight. The opportunities for improvement noted by this evaluation were generally not the result of a need to align current programs polices or practice to that of the expectations of improved incorporation of integrated safety management and quality assurance into work planning and control processes, but the reasonable maintenance and continual improvement of these items.

Section I-III contains those actions important to improving the effectiveness of ORO EM work planning and control. These sections include corrective actions taken and/or planned in response to recent ORRs and ISMS reverification as well as those resulting from reviews of these CRADs

SECTION I – DOE Oversight

Performance Objective WPC-1: DOE Work Planning and Control Oversight – The DOE field element has an established process that ensures effective oversight of the contractor’s work planning and control process.

Opportunity for Improvement #1

The DOE ORO EM ISM self assessment conducted in July 2005 found that a program is not in place to verify that all EM staff has required training for safe access to the EM work sites.

DOE Action	Deliverable	Due Date	Owner/Org
Staff will be instructed to include Site Access Training requirements in their Individual Development Plans which are expected to be due 2/2006.	Memo from the AMEM to staff re: Site Access Training Policy	9/20/2005 Complete	Director, Technical Support and Assessment Division
An assessment of EM site access training will be conducted and staff notified of deficiencies. Periodic assessments of site access training will be included in the EM self assessment schedules.	Self-assessment of AMEM Training	2/28/2006	Director, Technical Support and Assessment Division

Responsible Manager: DOE ORO EM Technical Support and Assessment Division Manager

Performance Objective WPC-2: DOE Work Planning and Control Oversight – The DOE field element performs effective oversight of the contractor’s work planning and control process.

Opportunity for Improvement #1

The ORO EM assessment program focuses primarily on radiological and nuclear facilities, which has the potential to overlook work planning and control review of industrial activities.

DOE Action	Deliverable	Due Date	Owner/Org
1. A DOE-ORO-EM Technical Assessment of Work Planning and Control of Construction and Industrial Activities at BJC has been scheduled for spring 2006. This review will include the Work	1. Assessment Report and Corrective Action Plan	6/30/2006	Nuclear & Operations Safety Performance Team Lead

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

Planning/Work Control CRADs.			
2. CRADs for Work Planning/Work Control provided to the Facility Representative group for inclusion in FR surveillances.	Surveillances including WP&C CRADs	3/31/2006	Facility Representative Group Team Lead

Responsible Manager: DOE ORO EM Technical Support and Assessment Division Manager

Opportunity for Improvement #2

The ongoing Type B investigation will result in corrective actions.

DOE Action	Deliverable	Due Date	Owner/Org
1. Prepare Corrective Action Plan and submit to HQ for approval	1. Corrective Action Plan		Nuclear & Operations Safety Performance Team Lead
2. Update this Site Action Plan with corrective actions and submit to HQ.	2. Updated Site Action Plan		Nuclear & Operations Safety Performance Team Lead

Responsible Manager: DOE ORO EM Technical Support and Assessment Division Manager

SECTION II – Bechtel Jacobs Company, LLC (BJC)

Performance Objective WPC-3: Work Control Program Documentation – The contractor has developed an effective work planning and control process.

No opportunities for improvement noted at this time.

Performance Objective WPC-4: Work Planning and Control Activity; Definition and Hazard Activity – Proposed work activities are adequately defined and analyzed to identify hazards and their associated controls.

Opportunity for Improvement #1

The DOE ORR for the K25/27 High Risk Equipment and Other Process Gas Equipment Removal identified several hazard analyses that had not been adequately completed.

BJC Action	Deliverable	Due Date	Owner/Org
1. Review and update all appropriate project hazard analyses. Implement all corrective actions for unsafe conditions.	<ul style="list-style-type: none"> • Revised project Startup Plan to include preparation of lift plans to move heaviest process equipment; • Reviewed and revised AHA 2005-03001 to address all identified issues; • USQD for Handheld Weapons Change for Security Force at K25/K27 Facilities; • Applicable AHAs revised to include Arc Flash Hazard and applicable controls"; • Developed implementation plan to incorporate NFPA 70E in project activities; • All identified unsafe conditions corrective actions completed. 	11/17/2005 Complete	K25/K27 Manager of Projects

Responsible Manager: K25/K27 Manager of Projects

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

Performance Objective WPC-5: Work Planning and Control Process – The contractor work planning process generates work control documents that lead to safe and efficient completion of work activities.

Opportunity for Improvement #1

Although processes and procedures are in place that should assure an effective work planning process, work packages are often not adequate in defining the work instructions needed for safe and efficient performance.

BJC Action	Deliverable	Due Date	Owner/Org
1. An Independent Assessment of Work Control will be completed by BJC Field Services with support from BJC QA. Approximately 300 work packages, will be reviewed by teams of subject matter experts. Teams will interview planners, field engineering, supervisors and craft for a selection of the packages.	1. BJC-IA-06-002, Independent Assessment of Work Control	2/24/2006	Field Services Manager
2. K25/K27 work packages were reviewed and revised based on problems identified during the MSA and ORR.	2. Revised K25/K27 Work Packages	11/16/2005 Complete	K25/K27 Manager of Projects

Responsible Manager: Field Services Manager

Opportunity for Improvement #2

The DNFSB visit to an ORO-EM project found that the process used to identify and analyze the hazards associated with the planned work was not adequate to ensure that appropriate controls would be in place to protect workers. The prepared work instructions required significant improvement to enable safe and successful accomplishment of the sampling and characterization.

BJC Action	Deliverable	Due Date	Owner/Org
1. BJC prepared an Operational Development Plan that adds rigor, formality and documentation to ensure the radiological basis and controls are accurate and easily implemented by workers. It includes a Proof of Process, a Practice phase and an expanded Mockup with training.	1. Operational Development Plan, training records.	Complete	MV Manager of Projects
2. The AHA was streamlined and focused by placing general hazards into a separate section and emphasizing those hazards specific to each work step.	2. Revised AHA	Complete	MV Manager of Projects

Responsible Manager: Melton Valley Closure Project Manager of Projects

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

Performance Objective WPC-6: Work Planning and Control Oversight – Contractor personnel perform work in accordance with approved work control documents.

Opportunity for Improvement #1

Numerous deviations and inadequate practices were noted during the implementation of work instructions during the DOE ORR for the K25/27 High Risk Equipment and Other Process Gas Equipment Removal.

BJC/DOE Action	Deliverable	Due Date	Owner/Org
1. K25/K27 Project performed a causal analysis of this issue and held Supervisor/Personnel meeting to discuss and reinforce stop work authority and adherence to work package steps.	1. Causal analysis; Supervisor/Personnel meeting attendance rosters and agenda, validation checklists and attendance roster for standing work packages.	11/16/2005 Complete	K25/K27 Manager of Projects
2. Perform followup DOE reviews of project work practices will be conducted. WP&C CRADs will be incorporated into these reviews.	2. Review reports	3/31/2006	DOE Facility Representatives and Subject Matter Experts

Responsible Manager: K25/K27 Manager of Projects

Opportunity for Improvement #2

During the DOE ORR for K25/27, pre-job preparations were found to be inadequate for some work operations.

BJC/DOE Action	Deliverable	Due Date	Owner/Org
1. K25/K27 Project performed a causal analysis of this issue and held Supervisor/Personnel meeting to discuss and reinforce stop work authority and adherence to work package steps.	1. Causal analysis; Supervisor/Personnel meeting attendance rosters and agenda, validation checklists and attendance roster for standing work packages.	11/16/2005 Complete	K25/K27 Manager of Projects
2. Work packages were revised to add step to ensure work area is properly set up and daily operational checks are performed.	2. Revised work package	11/16/2005 Complete	K25/K27 Manager of Projects

Responsible Manager: K25/K27 Manager of Projects

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

Performance Objective WPC-7: Work Planning and Control Oversight – The contractor has an established process that requires line management and assessment personnel perform timely assessment/surveillances of the work planning and control process, including periodic reviews of active and in development work control documents.

Opportunity for Improvement #1

BJC management presence in the K-25 Building work area is not adequate to assure that safety roles and responsibilities are effectively accomplished. BJC-GM-1400, *Integrated Safety Management System Description*, states “Line Management is responsible for the safe and efficient conduct of work to ensure protection of the public, the workers, and the environment.”

BJC Action	Deliverable	Due Date	Owner/Org
1. K25/K27 Manager of Projects distributed management expectations for increased sustained presence and involvement of managers at the work locations.	1. Manager of Projects Senior Field Oversight Expectations for the K25/K27 Project, "Management Walk-About"	11/7/2005 Complete	K25/K27 Manager of Projects
2. BJC will develop a management tool to make the Manager of Projects and functional managers accountable for their management assessments and encourage them to be proactive in self-identification of issues. Management assessment schedules are to be discussed at the BJC President's staff meeting where the MOPs and functional managers will report on management assessments scheduled, results, and effectiveness of corrective actions on a quarterly basis.	2. Management tool and meeting minutes from President's staff meeting.	4/30/06	BJC Quality Assurance Manager

Responsible Manager: BJC QA Manager

SECTION III – Foster Wheeler Environmental Corporation (FWENC)

Performance Objective WPC-3: Work Control Program Documentation – The contractor has developed an effective work planning and control process.

No opportunities for improvement noted at this time.

Performance Objective WPC-4: Work Planning and Control Activity; Definition and Hazard Activity – Proposed work activities are adequately defined and analyzed to identify hazards and their associated controls.

Opportunity for Improvement #1

Personnel were observed operating a personnel lift within close proximity to an energized electrical line without appropriate controls in place.

FWENC Action	Deliverable	Due Date	Owner/Org
Stop work initiated and alternative means evaluated and used.	Stop work order.	12/31/2005 Complete	TRU Project General Manager
Charter a Safety Conscious Work Environment Group to evaluate related issues and make recommendations.	Working Group Charter	12/31/2005 Complete	TRU Project General Manager

Responsible Manager: TRU Project Operations Manager

Performance Objective WPC-5: Work Planning and Control Process – The contractor work planning process generates work control documents that lead to safe and efficient completion of work activities.

Opportunity for Improvement #1

Several procedural discrepancies were noted during the DOE ORR which ranged from failure to flow down a requirement to inaccurately describing a requirement.

FWENC Action	Deliverable	Due Date	Owner/Org
Review and revise procedures. Designate Cognizant	Revised procedures	11/10/2005	TRU Project General

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

Engineer as appropriate.	Notification designating Cognizant Engineer	Complete	Manager
Train to revised procedures.	Training records	11/10/2005 Complete	TRU Project General Manager

Responsible Manager: TRU Project ESH&QA Manager

Opportunity for Improvement #2

Current glove box design and operational practices are not sufficient to ensure contamination control and minimal worker exposure to contamination during the drum insert process to the glove box line in the Process building

FWENC Action	Deliverable	Due Date	Owner/Org
Design, procure, and install flexible air lock	Drawing and completed work order	12/12/2005 Complete	TRU Project General Manager
Revise RWP to account for flexible air lock	Revised RWP	12/12/2005 Complete	TRU Project General Manager

Responsible Manager: TRU Project Deputy Project Manager

Performance Objective WPC-6: Work Planning and Control Oversight – Contractor personnel perform work in accordance with approved work control documents.

No opportunities for improvement noted at this time.

Performance Objective WPC-7: Work Planning and Control Oversight – The contractor has an established process that requires line management and assessment personnel perform timely assessment/surveillances of the work planning and control process, including periodic reviews of active and in development work control documents.

No opportunities for improvement noted at this time.



**Office of River Protection
Site Action Plan**

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

A handwritten signature in cursive script, appearing to read "Roy J. Schepens", is written over a horizontal line.

**Approved, Roy J. Schepens, Manager
Office of River Protection**

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

Executive Summary

Evaluation Process

The U.S. Department of Energy (DOE), Office of River Protection (ORP) conducted work planning and control assessments in response to Commitment #23 of the DOE's Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 2004-1, "Oversight of Complex, High-Hazard Nuclear Operations." ORP conducted these assessments in accordance with the instructions provided in the November 18, 2005 DOE Environmental Management (EM) memorandum, Chief Operating Officer for Environmental Management to Distribution, "Work Planning and Work Control Assessments and Site Action Plans for Defense Nuclear Facilities Safety Board Recommendation 2004-1, Commitment 23," dated November 18, 2005. Specific direction was provided to perform a review of the DOE field office and contractors in the area of work planning and work control (WP&C). The assessment teams determined that a combination of existing assessment data and conduct of new assessments would be required to fully evaluate all WP&C processes used by ORP and ORP prime contractors.

WP&C oversight of the Hanford Tank Waste Treatment and Immobilization Plant (WTP) project was evaluated by two experienced DOE project management and field oversight personnel using the criteria review and approach documents (CRADs) in the EM memorandum. The team performed the assessment in December, 2005. The ORP Tank Farm Operations Division used the EM Line Management Oversight Assessment Report and a Facility Representative Self-Assessment Report to fulfill the EM CRADs for WP&C oversight.

In December, 2005, a team comprised of four Washington Safety Management Solutions (WSMS) consultants, two Bechtel National, Inc. (BNI) personnel, and two ORP personnel completed a thorough WP&C assessment of the WTP project using the EM CRADs. The assessment focus areas were also derived from the CRADs in the DOE-HDBK-3027-99, *Integrated Safety Management Systems (ISMS) Verification Team Leader's Handbook*, and were compared with National Nuclear Security Administration (NNSA) guidance.

One month prior to issuance of the EM memorandum CRADs, the ORP Deputy Manager led an Integrated Safety Management System (ISMS) review of the tank farm prime contractor CH2M HILL. The assessment team included four independent senior technical personnel, one senior ORP facility representative, a member of the Hanford Atomic Trades Council (HAMTC), and an experienced technical editor, and was observed by a member of the Hanford Advisory Board (HAB). This team used the draft EM work planning and control CRADs, and provided feedback to EM and the other site managers on their effectiveness.

The EM WP&C CRADs provided logical evaluation criteria for assessing contractor work control programs and associated DOE and contractor oversight of WP&C. The CRADs addressed each component of a contractor's work control program in a sequence similar to the process for developing work control documents. DOE offices typically do not have formal work control oversight programs

like other safety management programs such as radiological protection, quality assurance, and fire protection. The primary means of WP&C oversight has been through the facility representative program with a focus largely on the implementation of work control documents. The ORP is considering expansion of that focus to include the identification of a WP&C subject matter expert, and incorporation of the EM CRADs into assessment plans and guides.

The EM CRADs could be improved by adding criteria to the DOE and contractor objectives to focus attention on transition activities – such as when work moves from design to construction or construction to operations. As another improvement suggestion, Objective 6, criteria 3 should be expanded to state, “Effective pre-job walk-downs and pre-evolutionary briefings are performed.” Contractors have demonstrated different methods of implementing pre-evolutionary briefings and it is possible that not all workers on a given day would attend the briefing, but a pre-job walk-down by all involved workers each day prior to work would better ensure all workers are more familiar with the tasks and hazard controls.

Overall Evaluation Summary

The ORP and its prime contractors CH2M HILL for the tank farms and BNI for the WTP project were evaluated against the EM CRADs by three different assessment teams, and the results show that whether or not the WP&C objectives were considered met, each organization has several opportunities for improvement (OFI).

For ORP, the assessment team identified three OFIs with a total of six action items.

<u>CRAD #</u>	<u>Objective Met</u>	<u>Objective Partially Met</u>	<u>Objective Not Met</u>	<u>Comments</u>
1	X			Two OFIs Noted
2	X			One OFI Noted

For CH2M HILL, the assessment team identified four OFIs with a total of thirteen action items.

<u>CRAD #</u>	<u>Objective Met</u>	<u>Objective Partially Met</u>	<u>Objective Not Met</u>	<u>Comments</u>
3		X*		No OFIs Noted*
4		X		Two OFIs Noted
5		X		One OFI Noted
6		X		One OFI Noted

* This CRAD objective 3 was determined to be partially met during the team assessment partly because of a finding related to an inadequate hazard analysis. During compilation of this action plan, the OFI to address this finding fit better under the results for CRAD objective 5.

For Bechtel National, Inc., the assessment team identified four OFIs with a total of ten action items.

<u>CRAD #</u>	<u>Objective Met</u>	<u>Objective Partially Met</u>	<u>Objective Not Met</u>	<u>Comments</u>
3		X		One OFI Noted
4		X		One OFI Noted
5		X		One OFI Noted
6		X		One OFI Noted

Each assessment team used different terminology to identify which issues required higher prioritization and thus corrective actions for this action plan, and which issues could be effectively dealt with in the individual organization's corrective action management processes.

The ORP portion of the action plan provides responses to the three "recommendations" in the assessment of ORP WTP oversight. The CH2M HILL portion of the action plan describes actions to address the four "findings" in the ISMS review and leaves the "observations" for tracking and correction in the contractor's Problem Evaluation Request (PER) system. The BNI portion of the action plan provides actions to address the eight "observations" (comparable to "findings" in the CH2M HILL system) in the WP&C assessment and the thirteen "recommendations" (comparable to "observations" in the CH2M HILL system) are to be resolved within the contractor's Recommendations and Issues Tracking System (RITS).

CH2M HILL performs nuclear operations in the Hanford Waste Tank Farms, and engages in the storage, retrieval, and transfer of nuclear waste from the Cold War production of nuclear weapons materials, as well as construction projects improve the tank farm infrastructure and prepare for transfer of the nuclear waste to treatment facilities currently in design and construction. The ISMS assessment team determined that the CH2M HILL ISMS is implemented and, with some exceptions, is effective. Although the tank farm contractor has made significant progress since the October 2004 ISM Improvement Validation Review, additional improvements are warranted to address deficiencies in this most recent assessment and to fully address previously identified findings from the October 2004 and March 2005 reviews.

The CH2M HILL OFIs detail necessary improvements in Unreviewed Safety Question evaluations, the conduct of pre-job walk-downs with the assigned workers, performance of a more integrated project hazard analysis for the C-200 series tank retrievals, and worker compliance to the job hazard analysis controls in a work package.

BNI does not perform nuclear operations and is not currently involved in the storage, handling, processing, or disposal of nuclear materials. Their scopes of work are engineering, procurement, construction and start up/commissioning of the WTP. At this point in the WTP project, BNI's overall safety performance is within the norms for construction work. Their safety performance has been marred in the past by recurring events involving dropped or falling objects in the vicinity of workers and more recently by a series of hazardous energy control lapses. Both now and in the future as construction forces push toward system testing and turnover, BNI recognizes the need to have in place a strong nuclear safety culture and mature systems which will easily transition to the operations phase of the program. The focus is on energized systems and high risk areas of work associated with the construction utilities systems (electrical power distribution, compressed gases, combustible gases, sewer, confined spaces, and excavations).

The BNI OFIs describe the creation of a Central Utilities Group to manage WP&C for "life critical" activities on the systems described immediately above. BNI seeks to increase worker participation in the front end development of job hazard analyses and hazardous work permits as well as in the causal analysis and corrective action development portions of their feedback processes. In

between, BNI will work to improve processes for maintaining up-to-date, understandable work packages with the applicable job hazard analyses included in the package and followed by the construction crafts.

Following submittal of the draft action plan (Letter 06-WTP-004, dated January 12, 2006), ORP contracted with the human performance improvement consultant firm *BushCo* to complete a Human Performance Assessment/Accident Investigation of selected hazardous energy control related occurrence reports from 2005 at the WTP construction site. The investigation took place from January 30 through February 3, 2006. The investigation resulted in one supplemental OFI with two actions related to comparing the investigation results with the causal analyses for the subject occurrence reports and modifying the analyses and corrective actions as appropriate.

(Note: The Feedback and Improvement Site Action Plan attached to ORP letter 06-ESQ-011, dated February 8, 2006, contained one opportunity for improvement with three action items regarding development of a Human Performance Improvement strategic plan, training, and contract direction. Those items are not repeated in this action plan.)

Each organization displayed strengths and these were summarized in Section IV of this action plan. The actions described in this plan will provide greater safety assurance as well as consistently effective job performance.

Action Plan Organization

Sections I-III contain those actions important to improving the effectiveness of WP&C.

Section IV contains WP&C “Good Practices” for sharing across the DOE.

Section V contains the supplemental OFI identified by ORP and the WTP contractor.

SECTION I – DOE Oversight

Performance Objective WPC-1: Work Planning and Control Oversight

Opportunity for Improvement: WPC-ORP-OFI-1

To promote consistent, effective oversight of the contractors, ORP personnel who perform assessments should be qualified per the ORP procedure, and facility representatives should also complete a site-specific qualification process.

ORP Action	Deliverable	Due Date	Owner/Org
a. ORP personnel performing assessments shall document their qualification in accordance with ORP M 220.1, <i>Integrated Assessment Program</i> .	ORP oversight personnel have documented their assessor qualification using the ORP Assessment Qualification Record from ORP M 220.1.	April 30, 2006	Patrick Carier, Office of Environmental Safety and Quality
b. The WTP Project Manager shall issue and approve a WTP facility specific qualification card.	The WTP Project Manager has approved and placed under configuration control the WTP facility specific qualification card.	February 28, 2006	John Eschenberg, WTP Project Manager
c. Facility representatives assigned to the WTP project shall complete cross-qualification to the approved WTP facility specific qualification card.	The assigned WTP facility representatives have completed cross-qualification to the WTP facility specific qualification card.	December 30, 2006	John Eschenberg, WTP Project Manager

Responsible Manager: Shirley Olinger / Deputy Manager, Office of River Protection

Opportunity for Improvement: WPC-ORP-OFI-2

Facility Representative Instructions (FRI) should be updated to reflect expectations for documentation of assigned assessment items, and to reflect the latest program and reference updates.

ORP Action	Deliverable	Due Date	Owner/Org
a. Revise the FRIs to include expectations for the weekly report input related to the performance of surveillances and facility walkthroughs. The FRI should specify the level of detail required to meet the objectives of the Integrated Assessment Program.	Revised Facility Representative Instructions	September 26, 2005	Complete
b. Revise the FRIs to reflect the latest program and reference updates.	Revised Facility Representative Instructions	September 30, 2005	Complete

Responsible Manager: T. Zack Smith / Assistant Manager, Tank Farms Project

Performance Objective WPC-2: Work Planning and Control OversightOpportunity for Improvement: WPC-ORP-OFI-3

ORP should ensure an extent of condition review is conducted for recurring issues, and that corrective action effectiveness is verified.

ORP Action	Deliverable	Due Date	Owner/Org
a. Revise the FRIs to include expectations for performance of extent of condition reviews for recurring issues, and for verification of corrective action effectiveness.	Revised Facility Representative Instructions	March 30, 2006	Mark Brown, Tank Farm Operations Division

Responsible Manager: T. Zack Smith / Assistant Manager, Tank Farms Project

SECTION II – CH2M HILL

Performance Objective WPC-3: Work Control Program Documentation

No opportunities for improvement noted.

Performance Objective WPC-4: Work Planning and Control Activity

Opportunity for Improvement: WPC-CH2-OFI-1

CH2M HILL should ensure the Unreviewed Safety Question (USQ) evaluations are prepared with consideration of ORP-approved safety basis amendments that have not yet been implemented in the tank farms.

CH2M HILL Action	Deliverable	Due Date	Owner/Org
a. Issue a safety basis bulletin to ensure USQ evaluators address safety basis amendments upon ORP approval of the amendments.	Safety basis bulletin issued.	October 13, 2005	Complete
b. Review USQ evaluations conducted between August 5, 2005 and October 13, 2005 to determine potential impacts of safety basis amendments on USQ evaluations.	USQ evaluation review report completed.	October 18, 2005	Complete
c. Revise TFC-ENG-SB-C-01, <i>Safety Basis Issuance and Maintenance</i> , to require safety basis bulletins to be issued upon receipt of the ORP approval of safety basis amendments.	Procedure TFC-ENG-SB-C-01 revised.	December 1, 2005	Complete

d. Issue TFC-CHARTER-33, <i>Safety Basis Change Review Charter</i> .	TFC-CHARTER-33 issued.	December 14, 2005	Complete
e. Train personnel on the revised documents.	Training performed and documented.	March 1, 2006	Ron Stevens, Nuclear Safety and Licensing Director

Responsible Manager: Vic Pizzuto / Senior Vice President, Nuclear Operations

Opportunity for Improvement: WPC-CH2-OFI-2

Tank farm field work organizations should perform final pre-job walk-downs with the work team prior to work execution as required by the work control procedure.

CH2M HILL Action	Deliverable	Due Date	Owner/Org
a. Brief all field work supervisors on walk-down requirements and expectations as noted in TFC-OPS-MAINT-C-01, <i>Tank Farm Contractor Work Control</i> , Section 4.5.1.	Briefing performed and documented.	October 14, 2005	Complete
b. Conduct a follow-up assessment to determine effectiveness.	Follow-up assessment performed and documented.	March 30, 2006	Tony Jennings, Work Planning Director

Responsible Manager: Vic Pizzuto / Senior Vice President, Nuclear Operations

Performance Objective WPC-5: Work Planning and Control Process**Opportunity for Improvement: WPC-CH2-OFI-3**

CH2M HILL should perform a more integrated project hazard analysis for the C-200 series tank retrievals to evaluate the hazards throughout the project life-cycle, to include detailed analysis of equipment disconnect/reconnect when moving the retrieval system from tank to tank.

CH2M HILL Action	Deliverable	Due Date	Owner/Org
a. Perform a supplemental hazard evaluation for the C-200 vacuum retrieval to provide a more integrated project hazard evaluation.	Supplemental hazard evaluation completed and additional controls incorporated into work documents.	November 11, 2005	Complete
b. Append the supplemental hazard evaluation to RPP-17190, <i>Safety Evaluation of the Waste Retrieval Vacuum System for 241-C Tank Farms 200-Series Tanks</i> .	Supplemental hazard evaluation appended to RPP-17190.	December 30, 2005	Complete
c. Revise TFC-ENG-SB-C-06, <i>Safety Basis Development</i> , to require consideration of project life-cycle and detailed analysis of the hazards associated with equipment disconnect/transport/reconnect with the tank farms.	Procedure TFC-ENG-SB-C-06 revised.	December 21, 2005	Complete

Responsible Manager: Vic Pizzuto / Senior Vice President, Nuclear Operations

Performance Objective WPC-6: Work Planning and Control OversightOpportunity for Improvement: WPC-CH2-OFI-4

CH2M HILL should brief tank farm maintenance personnel regarding a work package where job hazard analysis (JHA) controls were not followed. The briefing and follow-on activities should emphasize the importance of familiarity with the JHA and compliance with the hazard controls.

ORP Action	Deliverable	Due Date	Owner/Org
a. Brief maintenance personnel on the unsatisfactory performance of work order WO-05-001346 (workers did not follow controls for use of knives.)	Briefing performed and documented.	November 1, 2005	Complete
b. Counsel personnel who performed WO-05-001346 on the proper use of personal protective equipment.	Counseling performed.	November 1, 2005	Complete
c. Conduct an extent of condition assessment and identify additional corrective actions.	Extent of condition assessment performed and documented and any additional corrective actions entered into the contractor tracking system.	March 30, 2006	Rob Cantwell, Industrial Safety Senior Director

Responsible Manager: Vic Pizzuto / Senior Vice President, Nuclear Operations

SECTION III – BNI

Performance Objective WPC-3: Work Control Program Documentation

Opportunity for Improvement: WPC-BNI-OFI-1

BNI should develop and implement a more comprehensive work planning and control organization to manage construction work involving hazardous energy or conditions, and require subcontractors to work to the site standard process for this type of work.

BNI Action	Deliverable	Due Date	Owner/Org
a. Develop a work control center (as part of the new Central Utilities Group) complete with procedures, staffing, and space to manage work planning and control for "life critical" activities associated with electrical, water, sewer, and gas systems used during construction.	Functioning work control center in the Central Utilities Group.	June 2, 2006	Simon Wright, Central Utilities Group Manager
b. Revise the construction work package process to require construction subcontractors to work to a site standard process.	Revised procedure 24590-WTP-GPP-CON-1201, <i>Construction Work Packages.</i>	March 31, 2006	Scott Neubauer, Field Engineering Manager

Responsible Manager: Mike Lewis / WTP Manager of Construction

Performance Objective WPC-4: Work Planning and Control Activity**Opportunity for Improvement: WPC-BNI-OFI-2**

BNI should revise the hazard analysis and control procedures to increase construction craft participation in development and review of job hazard analyses, to consider the appropriate hierarchy of hazard controls, and to ensure appropriate review of hazardous work permits.

BNI Action	Deliverable	Due Date	Owner/Org
a. Revise procedure 24590-WTP-GPP-SIND-002, <i>Job Hazard Analysis (JHA/Safety Task Analysis Risk Reduction Talk (STARRT))</i> , to increase craft participation in develop and review of hazard analyses.	Revised procedure 24590-WTP-GPP-SIND-002.	March 31, 2006	Jess Hinman, Field Safety Assurance Manager
b. Issue a new procedure for the Central Utilities Group to clearly explain the hierarchy of hazard controls to be applied during development of construction work packages.	Issue and implement the new procedure.	March 31, 2006	Simon Wright, Central Utilities Group Manager
c. Revise procedure 24590-WTP-GPP-SIND-013, <i>Hazardous Work Permit</i> , to require the appropriate reviews from groups such as safety and health, industrial hygiene, and engineering, and to require approval from the appropriate level of construction management to prevent opportunities for single point failures.	Revised procedure 24590-WTP-GPP-SIND-013.	March 31, 2006	Simon Wright, Central Utilities Group Manager

Responsible Manager: Mike Lewis / WTP Manager of Construction

Performance Objective WPC-5: Work Planning and Control ProcessOpportunity for Improvement: WPC-BNI-OFI-3

BNI should implement improved processes for work control documentation.

BNI Action	Deliverable	Due Date	Owner/Org
a. Together with the construction craft, perform an assessment of the current work package process including location of work packages during work, contents of work packages, and ease of use by the crafts, and develop improvement actions.	Assessment completed and documented and improvement actions developed.	March 31, 2006	Mike Hood, Site Superintendent
b. Develop a work package management process to ensure all design documents required for construction work are legible and readily available to the craft.	Work package management process developed, documented, and implemented.	June 2, 2006	Mike Hood, Site Superintendent
c. Revise procedure 24590-WTP-GPP-CON-1201, <i>Construction Work Packages</i> , to ensure JHAs are included with all work packages and are kept current.	Revised procedure 24590-WTP-GPP-CON-1201, <i>Construction Work Packages</i> .	March 31, 2006	Scott Neubauer, Field Engineering Manager

Responsible Manager: Mike Lewis / WTP Manager of Construction

Performance Objective WPC-6: Work Planning and Control OversightOpportunity for Improvement: WPC-BNI-OFI-4

BNI should improve the timeliness of the root cause analysis process to aid in timely reporting of event causes and corrective actions.

BNI Action	Deliverable	Due Date	Owner/Org
a. Revise procedure 24590-WTP-GPP-MGT-015, <i>Root Cause Analysis</i> , to streamline the process and increase employee involvement in problem solving and corrective action development.	Revised procedure 24590-WTP-GPP-MGT-015.	March 31, 2006	Dale Lindsay, Root Cause Analysis Coordinator
b. Increase the availability of trained root cause analysis team leaders.	Additional personnel identified and training conducted.	April 28, 2006	Dale Lindsay, Root Cause Analysis Coordinator

Responsible Manager: Mike Lewis / WTP Manager of Construction

SECTION IV – ORP Site WP&C Good Practices

Good Practice(s)	Site Point of Contact
<p>Good Practice #1: Inspection files produced by the ORP WTP project facility representatives and on-site construction quality inspectors are well maintained. The files contain specific construction activity inspection documentation as well as event reports, investigations, and corrective action follow-up verifications. The detail is sufficient to facilitate effective understanding by independent investigators.</p>	<p>Jim McCormick-Barger, (509) 373-8500</p>
<p>Good Practice #2: The ORP FY2006 Assessment Plan provides an integrated schedule to provide oversight for all areas and groups of the WTP project, including the work control processes.</p>	<p>Pat Carier, (509) 376-3574</p>
<p>Good Practice #3: The CH2M HILL Production, Planning, and Control Group implemented a mature job hazard analysis development process with improved worker involvement. Work planners were retrained to breakdown all jobs to identify activities at the individual task level. This detail proved to be very helpful in group job hazard analysis sessions, because the workers took a greater interest in refining the work steps and identifying all applicable hazards. Furthermore, the radiological planners bring their completed ALARA management worksheets to these group sessions so radiological hazards can be combined with the rest of the hazards into one job hazard analysis document. This enhances worker understanding and compliance with the controls.</p>	<p>Tony Jennings, (509) 373-3447</p>
<p>Good Practice #4: CH2M HILL incorporates a second worker walk-down of the job site after the pre-job briefing and just prior to conducting the work to verify conditions at the job site are as expected and to verify the workers understanding of the work instructions.</p>	<p>Tony Jennings, (509) 373-3447</p>

Good Practice #5: The CH2M HILL Executive Safety Review Board provides an excellent forum for communication of the health of safety programs and management expectations. The Safety Basis Change Review Board provides an effective forum for integrated analysis of safety analysis changes.	Vic Pizzuto, (509) 373-5320
Good Practice # 6: The CH2M HILL tank farm industrial hygiene database provides an excellent tool to make data-driven hazard control determinations.	Rob Cantwell, (509) 373-7209
Good Practice # 7: BNI worker safety standards and expectations are communicated through numerous mechanisms including work crew briefings, peer to peer safe work reinforcement and feedback programs, and lessons learned/safety bulletins.	Jess Hinman, (509) 373-8214
Good Practice #8: The BNI Safety Task Analysis and Risk Reduction Talk (STARRT) card program is a good process for reviewing hazards prior to the commencement of work each day.	Jess Hinman, (509) 373-8214

SECTION V – Supplemental Goals

Supplemental Goal WPC-1: Human Performance Improvement (HPI)

(Note: The Feedback and Improvement Site Action Plan attached to ORP letter 06-ESQ-011, dated February 8, 2006, contains one opportunity for improvement with three action items regarding development of a Human Performance Improvement strategic plan, training, and contract direction. These items will not be repeated here.)

ORP contracted with the human performance improvement consultant firm *BushCo* to complete a Human Performance Assessment/Accident Investigation of selected hazardous energy control related occurrence reports from 2005 at the WTP construction site. The investigation took place from January 30 through February 3, 2006.

Opportunity for Improvement: WPC-ORP-OFI-4

As a follow-up to the Human Performance Assessment/Accident Investigation, ORP and BNI should evaluate the investigation results, compare the results with previous causal analyses for the subject events, and determine if any modified or additional analyses and corrective actions are necessary.

ORP Action	Deliverable	Due Date	Owner/Org
a. Evaluate and compare investigation results with previous causal analyses and upgrade the root cause analysis of the recurring events as appropriate.	Report describing the evaluation and comparison of the existing causal analyses with the Human Performance Assessment/Accident Investigation, and a modified root cause analysis document if appropriate.	March 31, 2006	Mike Thomas, ORP Operations and Commissioning Team Lead Mike Lewis, WTP Manager of Construction
b. Develop any modified or additional corrective actions as appropriate.	Revised or additional corrective actions entered into the contractor’s tracking system.	April 28, 2006	Mike Lewis, WTP Manager of Construction

Responsible Manager: John Eschenberg, WTP Project Manager



Portsmouth/Paducah Project Office

Site Action Plan

February 2006

Commitment 23, Work Planning and Control

DNSFB Recommendation 2004-1

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

**Approved, William Murphie, Manager
Portsmouth/Paducah Project Office**

Note: Change Control for this Site Action Plan (SAP) resides with the PPPO Manager, with a cc to EM-3.2.

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Executive Summary

The Department of Energy (DOE) Chief Operating Officer for Environmental Management (EM) requested via memorandum, dated November 18, 2005 that EM sites take specific actions to address the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1, Commitment 23. These actions are in support of the DOE Under Secretary for Energy, Science and Environment memorandum, dated November 9, 2005, that establishes the path forward for meeting Commitment 23 of the DOE Implementation Plan for DNFSB 2004-1, *Oversight of Complex, High Hazard Nuclear Operations*.

This action plan documents the corrective actions to be taken based upon the results of an assessment conducted as an on-site review of field element performance. The Portsmouth Paducah Project Office (PPPO) conducted a review of the Criteria and Review Approach Documents (CRADs) provided with the memoranda to determine which CRADs might actually be assessed and those that could be addressed using information in the PPPO Oversight Database.

The PPPO and their Contractors' have demonstrated partial compliance with the work planning and work control oversight performance objectives. This action plan incorporates report results from activities associated with work planning and work control oversight conducted at both the Portsmouth and Paducah sites during calendar year 2005. Oversight activities include scheduled assessments, routine surveillances and Implementation Validation Reviews (IVRs) conducted at both sites. Limited site assessment activities were also conducted in late November and early December to address performance objectives where no clear evidence existed that the objectives had been assessed.

Site Action Plan
February 2006

Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Overall Evaluation Summary

The following table provides the results of this assessment.

Commitment 23 Criteria and Review Approach Document	Work Planning and Control - 1	Work Planning and Control - 2	Work Planning and Control - 3	Work Planning and Control - 4	Work Planning and Control - 5	Work Planning and Control - 6	Work Planning and Control - 7
DOE PPPO	Partially Met (1 Opportunity for Improvement (OFI))	Partially Met (2 OFI's)					
Uranium Disposition Services, LLC			Met	Met	Partially Met	Met	Met
LATA/Parallax Portsmouth, LLC			Partially Met (3 OFI's)	Partially Met (1 OFI)	Partially Met (1 OFI)	Partially Met (2 OFI's)	Partially Met (1 OFI)
Theta Pro2Serve Management Company, LLC			Partially Met (1 OFI)	Met	Met	Partially Met (1 OFI)	Partially Met (2 OFI's)
Bechtel Jacobs Company			Partially Met (1 OFI)	Met	Met	Met - 1 OFI	Met
Swift and Staley Mechanical Contractors, Inc.			Partially Met (1 OFI)	Met	Partially Met (1 OFI)	Met	Partially Met (1 OFI)

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Section I- DOE Oversight

Performance Objective WPC-1: Work Planning and Control Oversight

Opportunity for Improvement #1

Formalize the PPPO processes that provide oversight of the contractors' work planning and control processes.

DOE Action	Deliverable	Due Date	Owner / Org
Revise existing PPPO requirements to clearly identify PPPO staff roles and responsibilities to conduct oversight of all stages of the Contractors' work planning and work control process on a routine basis.	Revise PPPO Management Plan.	05/31/06	D. Kozlowski/ PPPO R. Underwood/ PPPO
Develop PPPO procedure(s) to implement work planning and work control oversight to include the methods for documenting oversight activities and results.	Procedure to cover conduct audit assessments and surveillances.	05/31/06	D. Kozlowski/ PPPO R. Underwood/ PPPO
Provide training, unless exempted by previous experience and knowledge, to PPPO staff designated to conduct work planning and work control oversight.	Provide training on surveillance/assessment techniques and the methods for documenting surveillance/assessment results.	06/30/06	L. Maghrak/ PPPO J. Saluke/ PPPO
Integrate DOE O 226.1, <i>Implementation of Department of Energy Oversight Policy</i> , into PPPO procedures.	Revise PPPO-M-414.1, Quality Assurance Program Plan.	05/31/06	J. Gambrell/ PPPO

Responsible Manager: Rachel Blumenfeld

Performance Objective WPC-2: Work Planning and Control Oversight

Opportunity for Improvement #1

Site Action Plan
February 2006

Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Incorporate all stages of work planning and control into scheduled oversight activities and use those results to improve the contractors' work control processes.

DOE Action	Deliverable	Due Date	Owner /Org
Incorporate PPPO oversight activities for the contractors' work planning and work control process into the PPPO surveillance schedule.	Prepare and implement the surveillance schedule.	03/31/06	R. Underwood/ PPPO
Develop process or procedure to track and trend oversight results with a goal to improve the work planning and work control process.	DOE PPPO QAP Plan Associated Procedure	05/31/06	R. Underwood/ PPPO
Evaluate effectiveness of improvements made in the contractors' work planning and control processes.	Conduct follow-up assessment using the work planning and control criteria.	10/31/06	J. Saluke/ PPPO L. Maghrak/ PPPO

Responsible Manager: Rochelle Underwood

Opportunity for Improvement #2

Incorporate DOE Directive on oversight requirements into contracts.

DOE Action	Deliverable	Due Date	Owner / Org
Revise the PORTS and PAD contracts to include DOE O 226.1, <i>Implementation of Department of Energy Oversight Policy</i> .	Add DOE O 226.1 to List B in the PPPO contracts.	6/30/06	L. Parsons/ PPPO P. Thompson/ PPPO R.J. Bell/ PPPO

Responsible Manager: Rachel Blumenfeld

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 Identification

Site Action Plan

February 2006

Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

No opportunities for improvement noted at this time.

Performance Objective WPC-5: Work Planning and Control Process

No opportunities for improvement noted at this time.

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 Oversight

No opportunities for improvement noted at this time.

Section II – UDS

Performance Objective WPC-1: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Performance Objective WPC-2: Work Planning and Control Oversight

No opportunities for improvement noted at this time

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 Identification

No opportunities for improvement noted at this time

Performance Objective WPC-5: Work Planning and Control Process

No opportunities for improvement noted at this time.

Performance Objective WPC-6: Work Planning and Control Process

No opportunities for improvement noted at this time.

Performance Objective WPC-7: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Section III – LPP

Performance Objective WPC-1: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Performance Objective WPC-2: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Performance Objective WPC-3: Work Control Program Documentation

Opportunity for Improvement #1:

LPP-PQ-1107, *Performance Document Process* needs to be revised to fully comply with the work control and work planning requirements.

LPP Action	Deliverable	Due Date	Owner /Org
As an interim action, issue written direction to preparers of technical procedures to comply with the appropriate work planning and work control criteria.	Correspondence providing direction to preparers of technical procedures.	02/10/06	Eric Stacey Procedures
Revise LPP-PQ-1107 to incorporate the appropriate criteria from the Work Planning and Work Control CRADS.	LPP-PQ-1107, <i>Performance Document Process</i>	04/30/06	Eric Stacey Procedures

Responsible Manager: Dave Kent

Site Action Plan
February 2006

Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Opportunity for Improvement #2:

A formal process needs to be developed for the turnover of responsibilities when line managers or Superintendents are transferred. (This item also addresses PPPO observation on turnover requirements.)

LPP Action	Deliverable	Due Date	Owner /Org
Revise LPP-GM-2000 to incorporate turnover of responsibilities.	LPP-GM-2000, <i>Conduct of Operations for Facilities, Projects and Activities</i>	04/30/06	Eric Stacey Procedures

Responsible Manager: Tim Larabee, Work Control Manager

Opportunity for Improvement #3:

LPP Training Position Descriptions need to be developed and implemented for the Work Control Manager and for all personnel performing planning activities.

LPP Action	Deliverable	Due Date	Owner /Org
Develop approved Training Position Description (TPD) for Work Control Manager Position	Approved TPD for Work Control Manager	02/15/06	Moore Training Dept
Work Control Manager completes required training	Training records that demonstrate completion of training by the Work Control Manager required by TPD	05/01/06	Moore Training Dept
Revise TPD for Planner Position	Approved TPD for Planners	02/15/06	Moore Training Dept
Planners complete required training	Training records that demonstrate completion of training by personnel who perform prepare/plan work packages.	05/01/06	Moore Training Dept

Responsible Manager: Jerry Moore, Training Manager

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

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

Opportunity for Improvement #1:

LPP-PO-1001, *Work Control Process* needs to be revised to fully comply with the work control and work planning requirements. Enhancements are being developed to address consideration of upset conditions, selection of controls based on an established hierarchy, ensuring that the hazards are adequately addressed through-out performance of the work, and the possibility of creating an additional hazard due to a selected control. (This item addresses PPPO observation on documenting unexpected conditions and their resolution.)

LPP Action	Deliverable	Due Date	Owner /Org
As an interim action, issue written direction to personnel who perform work package planning activities to comply with appropriate Work Control and Work Planning criteria.	Correspondence providing direction to preparers of technical procedures.	02/10/06	Tim Larabee Work Control
Develop LPP-0043 for improving work control for all LPP activities and operations	LPP-0043 <i>Work Control Improvement Plan</i>	1/30/06	Tim Larabee Work Control
Revise LPP-PO-1001 to incorporate the appropriate criteria from LPP-0043, <i>Work Control Improvement Plan</i>	LPP-PO-1001 <i>Work Control Process</i>	3/13/06	Tim Larabee Work Control

Responsible Manager: Tim Larabee, Work Control Manager

Site Action Plan
 February 2006
 Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Performance Objective WPC-5: Work Planning and Control Process

Opportunity for Improvement #1:

A document needs to be developed which enables planners and procedure writers to take the complexity and risk of a task and using the knowledge and training of the individuals performing the task, develop appropriate instructions. Once issued, training needs to be held with all personnel that develop work instructions in work packages or procedures to assure a consistent implementation.

LPP Action	Deliverable	Due Date	Owner /Org
Revise LPP-EH-2010 to incorporate the appropriate criteria from LPP-0043, <i>Work Control Improvement Plan</i>	LPP-EH-201 <i>Hazard Assessment</i>	03/13/06	Tim Larabee Work Control
Training of appropriate personnel as outlined in LPP-0043, <i>Work Control Improvement Plan</i>	Training records that demonstrate completion of training of appropriate personnel to LPP-EH-2010.	03/30/06	Moore Training Dept

Responsible Manager: Tim Larabee, Work Control Manager

Performance Objective WPC-6: Work Planning and Control Oversight

Opportunity for Improvement #1:

LPP-PO-1001 *Work Control Process* and LPP-GM-N001, *Plan of the Week (POW) and Plan of the Day (POD)* need to be revised to reflect the involvement by Facility Managers in approving work packages and subsequent authorization to perform the work.

LPP Action	Deliverable	Due Date	Owner /Org
Revise LPP-PO-1001 to incorporate the appropriate criteria from LPP-0043, <i>Work Control Improvement Plan</i>	LPP-PO-1001 <i>Work Control Process</i>	03/13/06	Tim Larabee Work Control
Revise LPP-PO-1001 to incorporate the appropriate criteria from LPP-0043, <i>Work</i>	LPP-GM-N001, <i>Plan of the Week (POW) and Plan of the Day (POD)</i>	03/13/06	Tim Larabee Work Control

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

LPP Action	Deliverable	Due Date	Owner /Org
<i>Control Improvement Plan</i>			

Responsible Manager: Tim Larabee, Work Control Manager

Opportunity for Improvement #2:

LPP-PQ-1107, *Performance Document Process* needs to be revised to involve the appropriate Facility Managers in review and approval of procedures that result in work being performed in their facility.

LPP Action	Deliverable	Due Date	Owner /Org
Revise LPP-PQ-1107 to require Facility Manager to approve a Technical Procedure when the operational activity is being performed in their facility.	LPP-PQ-1107, <i>Performance Document Process</i>	04/30/06	Eric Stacey Procedures

Responsible Manager: Dave Kent

Performance Objective WPC-7: Work Planning and Control Oversight

Opportunity for Improvement #1:

A systematic approach needs to be developed and implemented to assess the effectiveness of work planning and work control using measurable indicators as much as possible. (This item also addresses PPPO observation on implementation of routine assessment of work control processes and trending results of the oversight activities.)

LPP Action	Deliverable	Due Date	Owner /Org
Determine what elements of Work Planning and Work Control are most important to the overall effectiveness of the program	An internal memorandum that identifies the important elements.	02/20/06	Tim Larabee Work Control
Determine the methods that will be used to measure important elements	An internal memorandum to the QA Manager identifying the methods to measure the important elements.	02/20/06	Tim Larabee Work Control

Site Action Plan
 February 2006
 Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

LPP Action	Deliverable	Due Date	Owner /Org
Revise/Develop documents that documents the results of the measurements	Revised oversight plan	03/17/06	Mike MacCrae, QA
	Performance Indicator charts	03/17/06	Mike MacCrae, QA

Responsible Manager: Mike MacCrae

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Section IV – TPMC

Performance Objective WPC-1: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Performance Objective WPC-2: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Performance Objective WPC-3: Work Control Program Documentation

Opportunity for Improvement #1: Performance documents were cover sheeted from the previous Contractor and have not been revised to be fully integrated into the TPMC system to accurately reflect organization roles and other administrative differences.

TPMC Action	Deliverable	Due Date	Owner/Organization
Managers prioritize (0, 1, 2 and 3, with 1 as the highest priority) assigned performance documents for revision, and provide lists to Procedure Manager.	Prioritized lists of assigned performance documents.	January 16, 2006	Managers (collectively under Buck Sheward, President)
Procedure Manager combine Manager prioritized lists into one list.	Combined prioritized list of performance documents	January 23, 2006	Chip Stanizzo, Procedure Manager, Environmental, Safety, Health and Quality
Procedure Manager meet with Managers to develop Performance Documents Work-Off Plan to revise prioritized performance documents [Priority 1 and 2, including those needed to implement the Integrated Safety Management System (ISMS), by June 30, 2006, and Priority 3 by December 31, 2006].	Performance Documents Work-Off Plan	February 15, 2006	Chip Stanizzo, Procedure Manager, Environmental, Safety, Health and Quality
Quality Assurance (QA) Specialist enter rolling 30-day look-ahead action assignments to implement the	Tracker 30-day look-ahead Performance Documents Work-Off Plan action assignments.	February 20, 2006	Cathy Forshey, QA Specialist, Environmental, Safety, Health and Quality

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

TPMC Action	Deliverable	Due Date	Owner/Organization
Performance Documents Work-Off Plan into the Commitment Tracking System (Tracker) for closure tracking.			
Complete Priority 1 and 2 performance document revisions.	Tracker action assignments closure documentation.	June 30, 2006	Managers (collectively under Buck Sheward, President), and Chip Stanizzo, Procedure Manager, Environmental, Safety, Health and Quality
Complete Priority 3 performance document revisions.	Tracker action assignments closure documentation.	December 31, 2006	Managers (collectively under Buck Sheward, President), and Chip Stanizzo, Procedure Manager, Environmental, Safety, Health and Quality
PPPO Contractors' applying a graded approach, review and revise their work control procedure to include a formal documented process for turning over requirements when line management and/or first line supervisor responsibilities are transferred. (PPPO Observation)	Revise FS-1026, Personnel Turnovers.	June 31, 2006	Chris Ondera, O&M, Operations and Maintenance

Responsible Manager: Elise Allison, ESH&Q Manager

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

No opportunities for improvement noted at this time.

Performance Objective WPC-5: Work Planning and Control Process

No opportunities for improvement noted at this time.

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Performance Objective WPC – 6. Work Planning and Control Process

Opportunity for Improvement #1: Some documentation, such as pre-job safety meetings attendance and job walkdowns, is inconsistent. Some documents fully reflect attendance and subjects of discussion and others appear incomplete or unavailable, when it can be independently confirmed that the activity took place. Formal activities (meetings, walkdowns, etc.) described in the work control and supporting procedures need to be fully documented (agendas, attendance sheets, meeting notes, etc.), and reflect all personnel in attendance to ensure objective evidence of completion.

TPMC Action	Deliverable	Due Date	Owner/Organization
Operations and Maintenance (O&M) Manager work with Supervisors to identify work control activities requiring written documentation, and aids (e.g., logs, forms, etc.) for providing documentation.	Memo to file of list of work control activities requiring written documentation, and aids for providing documentation.	January 27, 2006	Chris Ondera, O&M Manager, Operations and Maintenance
O&M Manager work with Supervisors to develop and implement aids (e.g., logs, forms, etc.) for the activities requiring written documentation.	Memo to file of development and implementation of aids.	March 6, 2006	Chris Ondera, O&M Manager, Operations and Maintenance
QA Program Lead conduct assessment to verify aids (e.g., logs, forms, etc.) for the activities requiring written documentation have been implemented and are effective.	Assessment report.	April 21, 2006	Dan Longpre, QA Program Lead, Environmental, Safety, Health and Quality

Responsible Manager: Chris Ondera, O&M Manager, Operations & Maintenance

Performance Objective WPC – 7. Work Planning and Control Oversight

Opportunity for Improvement #1:

The Oversight Plan is in "Draft" completion and will be issued by January 2006.

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

TPMC Action	Deliverable	Due Date	Owner/Organization
QA Program Lead issue Oversight Plan	Oversight Plan	January 31, 2006	Dan Longpre, QA Program Lead, Environmental, Safety, Health and Quality

Responsible Manager: Elise Allison, ESH&Q Manager

Opportunity for Improvement #2: The QA Trending Program is in development and will periodically (expected Quarterly, beginning March 2006) compile selected assurance data into a summary report for review by management and DOE to help in focusing on improvement areas, where needed.

TPMC Action	Deliverable	Due Date	Owner/Organization
QA Program Lead meet with Managers and DOE to identify trending criteria.	Memo to file of list of Trending Criteria	February 3, 2006	Dan Longpre, QA Program Lead, Environmental, Safety, Health and Quality
QA Program Lead meet with Information Technology (IT) Programmer and QA Specialist to develop Trending System Plan.	Trending System Plan	February 20, 2006	Dan Longpre, QA Program Lead, Environmental, Safety, Health and Quality
3. IT Programmer work with QA Specialist to complete Trending System Plan, and enter trending data into database, as appropriate.	Tracker action assignments closure documentation.	April 3, 2006	Tim Burton, Computing and Telecommunications Manager
4. QA Specialist work with IT Programmer to generate first Quarterly Trending Report	Trending Report	April 17, 2006	Cathy Forshey, QA Specialist, Environmental, Safety, Health and Quality

Responsible Manager: Elise Allison, ESH&Q Manager

Site Action Plan
 February 2006
 Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Section V – BJC

(NOTE: BJC is transitioning out as the Remediation Contractor for the Paducah Site. PRS will assume responsibility on April 24, 2006)

Performance Objective WPC-1: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Performance Objective WPC-2: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Performance Objective WPC-3: Work Control Program Documentation

Opportunity for Improvement #1:

Turnover of line management and/or first line supervisor responsibilities not specified in contractors procedure/instructions.

BJC Action	Deliverable	Due Date	Owner/Organization
Revise PA-1001, "Paducah Work Control Process", to include attachment for Line management and/or first line supervisor responsibility transfer.	Revised PA-1001 procedure includes attachment for Line Management and/or First Line supervisor responsibility transfer.	March 1, 2006	BJC–Randy Crawford Facility/Operations Manager

Responsible Manager: Randy Crawford, Facility/Operations Manager

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

No opportunities for improvement noted at this time

Performance Objective WPC-5: Work Planning and Control Process

No opportunities for improvement noted at this time.

Site Action Plan
 February 2006
 Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Performance Objective WPC-6: Work Planning and Control Oversight

Opportunity for Improvement #1:

The review of project work packages identified that worker training matrices were not always incorporated into the work packages.

BJC Action	Deliverable	Due Date	Owner/Organization
1. Revise PA-1001, Paducah Work Control Process to include a requirement to incorporate the worker training matrices or document where the matrices are located	Revised PA-1001, Paducah Work Control Process includes a requirement to incorporate the worker training matrices or document where the matrices are located	March 1, 2006	BJC-Randy Crawford Facility/Operations Manager

Responsible Manager: Randy Crawford, Facility/Operations Manager

Performance Objective WPC-7: Work Planning and Control Oversight

No opportunities for improvement noted at this time.

Section VI – SST

Performance Objective WPC-1: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Performance Objective WPC-2: Work Planning and Control Oversight

No opportunities for improvement noted at this time

Performance Objective WPC-3: Work Control Program Documentation

Opportunity for Improvement #1

SST Procedure 6.1.1 does not specifically call out turnover requirements with respect to transfer of line management/first line supervisor responsibilities. SST will add those requirements when the procedure is next revised.

SST Action	Deliverable	Due Date	Owner / Org
Revise SST Procedure 6.1.1 to add turnover requirements.	Revised Procedure 6.1.1. approved and issued. Notify local DOE representative.	06/30/06	S. Smith, SST

Responsible Manager: S. Smith, SST

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

No opportunities for improvement noted at this time

Performance Objective WPC-5: Work Planning and Control Process

Opportunity for Improvement #1

SST does not specify in the work control documents the work steps for activities unless the activity is associated with work on a system that requires proper sequencing to safely perform the tasks. Work sequencing is discussed during the planning stage of the work and during the pre-job briefings.

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

SST Action	Deliverable	Due Date	Owner /Org
SST to evaluate the appropriateness of providing sequencing steps in their work control documents.	Update SST work control procedures to require sequencing of steps in work control documents as appropriate.	06/30/06	S. Smith, SST

Responsible Manager: S. Smith, SST

Performance Objective WPC-6: Work Planning and Control Process

No opportunities for improvement noted at this time

Performance Objective WPC-7: Work Planning and Control Oversight

Opportunity for Improvement #1

Currently, audit and assessment results (findings and observations) are not being tracked in a database suitable for tracking, retrieval, and trending.

SST Action	Deliverable	Due Date	Owner /Org
Backfit assessment results into the SST Corrective Action Tracking System.	Provide status report to local DOE representative.	03/30/06	T. Stanberry, SST

Responsible Manager: T. Stanberry, SST

Site Action Plan
February 2006
Commitment 23, Work Planning and Control – DNFSB Recommendation 2004-1

Work Planning and Control Good Practices

Although good practices were identified by DOE and the Contractors, these good practices lacked adequate justification or specificity to be included. DOE will identify future good practices as part of our oversight program.

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&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

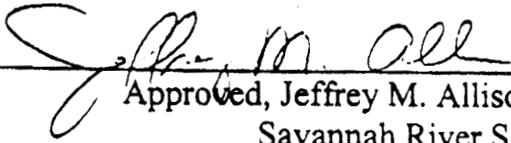
No opportunities for improvement noted at this time.

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



DNFSB Recommendation 2004-1
Commitment 23, Work Planning and Control
Corrective Action Plan


Approved, Jeffrey M. Allison, Manager
Savannah River Site

Note: Change Control for this Site Action Plan (SAP) resides with the Site Office Manager, with a cc to NA-10.

Executive Summary

Evaluation Process

This assessment was conducted as part of the Savannah River Site (SRS) 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". The assessment is the product of a joint effort of a DOE-SR/WSRC assessment team. Two members of the team were directly associated with the NNSA workshop responsible for the development of Criteria and Review Approach Documents (CRADS) and associated criteria intended for evaluation of a contractor's integrated work planning and control process, and to evaluate the DOE field office oversight of the activities associated with this process. The team applied the Work Planning and Control (WP&C) CRADS and their associated criteria, provided by Assistant Secretary of Environmental Management memorandum dated November 9, 2005, to all work planning and control processes utilized at SRS. This included the WSRC 2S Manual, Conduct of Operations, WSRC 1Y Maintenance Manual, WSRC C2 Site D&D Administrative Procedures, Procedure 2.05, "Site D&D Work Control Procedure", WSRC D3 Site Utilities Department Practices and Procedures, Procedure 4.2, "Maintenance Management Process Program Exception", and WSRC-IM-97-00024, "Savannah River National Laboratory Conduct of Research and Development".

The WP&C CRADS and associated criteria were thoroughly reviewed by the team in preparation to conduct the assessment. Additionally, the team reviewed developments in the area of work planning and control evaluation guidelines available from the NNSA work shop for this DNFSB commitment as well as the recently approved NNSA "Activity Level Work Planning and Control Processes Manual", which provides the attributes, best practices, and guidance for effective incorporation of integrated safety management and quality assurance in activity level work planning and control processes. The assessment team experienced some initial issues with the use of the terms "work planning" and "work control" in the performance of this assessment due to the established use of these terms connected with the performance of nuclear maintenance work. This required the team to consciously maintain a broader context of planning work and controlling work than a more narrow view of work planning and work control that is associated with nuclear maintenance.

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. The assessment team determined that a combination of existing assessment data and the conduct of a focused assessment would be required to fully evaluate all work planning and control processes utilized by WSRC. Facility Evaluation Board (FEB) assessment reports for Integrated Safety Management Evaluation (ISME) were available for three of the four WSRC WP&C processes. The FEB reports selected for use by this assessment report were chosen not only for their date of execution, which was within that allowed by the WP&C guidelines, but also for their inclusion of the

January 6, 2006
Site Action Plan
WP&C Commitment 23 – DNFSB Recommendation 2004-1

personnel interviews, document reviews, and observation of activities that fully support the HQ WP&C recommended approaches for assessing the provided CRADS. The remaining WSRC WP&C process not addressed by using the FEB reports was assessed through interviews, focused observations of work being performed and assessment of the work control process and procedures, both administratively and work planning, per the performance objectives and criteria in CRADs 3 through 7.

Overall Evaluation Summary

The results of this assessment determined that DOE-SR meets the objectives for CRAD-1 and CRAD-2 with opportunities for improvement noted in both CRAD assessment areas. WSRC was found to meet the objectives of CRAD-3 through CRAD-7 with opportunities for improvement noted in the assessment area of CRAD-3 and CRAD-7. The following table provides the results of this assessment.

CRAD #	Objective Met	Objective Partially Met	Objective Not Met	Comments
1	X			3 OFI's Noted
2	X			2 OFI's Noted
3	X			4 OFI's Noted
4	X			No issues noted
5	X			No issues noted
6	X			No issues noted
7	X			2 OFI's Noted

This review found no central DOE requirements document similar to DOE-O-433.1, "Maintenance Management Program for DOE Nuclear Facilities" that provides focused program requirement for work planning and control of work like that provided for a maintenance program for nuclear facilities. A matrix was developed to aid in the evaluation of how the WP&C CRADS were "nested" from the contract, through the S/RIDS (Standards and Requirements Document), and finally to the programs, procedures and polices for implementation. It was readily apparent, following development of this matrix, that unlike the contractor's functional area for the site Maintenance Program, which is internally reliant on compliance with the 18 elements of conduct of maintenance, the work planning and control processes for task level work such as D&D, non-nuclear site utilities and infrastructure, R&D, and many variations of subcontracted work, rely on the synergistic process that is a product of merging source requirements from numerous program functional areas (e.g., quality assurance, occupational safety and health, management systems (ISMS), project management, etc.). Multiple contract requirements generate these various program functional

January 6, 2006
Site Action Plan
WP&C Commitment 23 – DNFSB Recommendation 2004-1

areas which are the Environmental, Safety, and Health related DOE, Federal, State or local regulation and requirements applicable to WSRC work and implemented through company-level programs, procedures, and policies. The team recognized this as a challenge to developing contracts that consistently will result in a proper work planning and control process for non-maintenance work that is for example as effective as that generated for SRS D&D work, especially when flowing down requirements through a subcontract. While the assessment did not find an indication that this had hampered the ability to get SRS work done safely and consistently, the team recommended that a review be done to determine the effect that this has to the self and independent assessment, and track/trend processes of maintaining and improving performance of these non-maintenance based work planning and control processes.

This assessment determined that both WSRC and DOE-SR were able to meet the WP&C CRADS when applied to various work (e.g., operations, maintenance, construction/destruction, research and development, etc.) being performed at the Savannah River Site, and its oversight. This outcome appears to be more a result of mature contractor safety management programs supporting the accomplishment of work, the effectiveness of the enhanced assisted hazard analysis (AHA) WSRC 8Q122, a well developed Conduct of Research and Development, and experienced contractor and DOE-SR personnel. The opportunities for improvement noted by this assessment were generally not the result of a need to align current programs polices or practice to that of the expectations of improved incorporation of integrated safety management and quality assurance into work planning and control processes, but the reasonable maintenance and continual improvement of these items. As an additional opportunity for improvement, and borrowing from the NNSA suggested site action plan content, the team concluded that to enhance the ability to implement the intent of 2004-1 Commitment #23 that a recommendation be made to change DOE Order 5480.19 “Conduct of Operations for DOE Facilities” to add a 19th element for “Integrated Work Planning and Control” and to change DOE-STD-1063 to describe the facility representative oversight of work beyond the currently described as facility maintenance. These change recommendations will be provided to the SRS ISMS Champion to discuss in the complex wide ISMS reinvigoration team meetings.

Section I – DOE Deliverables, and Due Dates for WP&C Corrective Actions

Section II – Contractor Actions Deliverables, and Due Dates for WP&C Corrective Actions

Section III - WP&C “Good Practices”

SECTION I

Performance Objective WPC-1: Work Planning and Control Oversight

Opportunity for Improvement #1

Review of DOE-SR FRAP, FR PDs, and SRIP 430.1 by DOE management to determine if changes should be made to these documents to ensure the consistent utilization of FRs and to add clarity in the expectation of oversight of all aspects of the contractor's work planning and control process.

DOE Action	Deliverable	Due Date	Owner/Org
Review the DOE-SR FRAP to see if changes are needed to ensure the consistent utilization of FRs and to add clarity in the expectation of FR oversight of all aspects of the contractor's work planning and control process.	Completion of review and approval of change package to FRAP if required.	7/30/06	Terry O. Frizzell Director, Human Resources Management and Development Division
Review the FR position descriptions (PDs) to ensure consistent utilization of FRs and to add clarity in the expectation of FR oversight of all aspects of the contractor's work planning and control process.	Completion of review and approval of change package(s) if required.	7/30/06	Terry O. Frizzell Director, Human Resources Management and Development Division

Responsible Manager: Frank Wright, Manager, Office of Human Capital Management

DOE Action	Deliverable	Due Date	Owner/Org
Review SRIP 430.1 for clarity of expectation for FR oversight responsibilities for work planning and control processes using 2004-1 Commitment #23 as a guide	Completion of review and approval of change package if required.	5/30/06	Carl A. Everatt Site Facility Representative Champion

Responsible Manager: Carl A. Everatt, Acting, Assistant Manager for Waste Disposition Projects (AMWDP)

January 6, 2006
 Site Action Plan

WP&C Commitment 23 – DNFSB Recommendation 2004-1

Opportunity for Improvement #2

A review should be conducted of those organizations assigned contractor oversight responsibility to determine if there is a need to expand work planning and control oversight responsibilities beyond the FR position.

DOE Action	Deliverable	Due Date	Owner/Org
Organizations assigned contractor oversight responsibilities should review FR oversight responsibilities to determine if there is a need to expand work planning and control oversight responsibilities beyond the FR position. Review entails analysis of current work force against 2004-1 Commitment #23 WP&C oversight expectations.	Complete review of the DOE-SR 5-Year Workforce Management Plan and approval of change package if required	6/30/06	Jim Folk Contractor Human Resources and Organizational Evaluation Team (CHROET)

Responsible Manager: Frank Wright, Manager, Office of Human Capital Management

Opportunity for Improvement #3

Recommend revision to DOE-STD-1063 and DOE Order 5480.19, to establish consistent DOE expectation of FR oversight of work planning and control at the task level for all nature of work (i.e., operations, maintenance, construction/destruction, research and development, etc.) and to extend conduct of operations to include the integrated work planning and control process requirements.

DOE-SR Action	Deliverable	Due Date	Owner/Org
Propose change to DOE-STD-1063 and DOE Order 5480.19 to the ISMS Champions Council for consideration.	Provide a position paper for proposed DOE directive changes, based on the WP&C assessment report, to the SRS ISMS Champion to support submittal of the recommended changes to the ISMS Champions Council for consideration.	4/30/06	Randall J. Clendenning Director, Safety and Radiation Protection Division

Responsible Manager: Karen L. Hooker, Manager, Office of Environment, Safety, and Health

Performance Objective WPC-2: Work Planning and Control Oversight

Opportunity for Improvement #1

Extend the Site Issues Management and Technical Assessment System (SIMTAS) to include a Work Planning and Control (WP&C) Process assessment area that uses the HQ WP&C CRADS, and the associated WP&C criteria as lines of inquiry (LOIs).

DOE-SR Action	Deliverable	Due Date	Owner/Org
Extend SIMTAS to include an assessment area for Work Planning and Control using HQ WP&C CRADS, and the associated WP&C criteria as lines of inquiry (LOIs).	Change to SIMTAS and an implementing e-mail notification to SIMTAS users	5/30/06	Donna A. Jackson DOE-SR Technical Assessment Program Manager

Responsible Manager: Randall J. Clendenning, Director, Safety and Radiation Protection Division

Opportunity for Improvement #2

Review SRIP 430.1 "Facility Representative Program" to determine the need to standardize the expectation of including the Track and Trend assessment in the annual assessment plan and to use SIMTAS to document the Track and Trend assessment.

DOE-SR Action	Deliverable	Due Date	Owner/Org
Change SRIP 430.1 "Facility Representative Program" to standardize the expectation of including the Track and Trend assessment in the annual assessment plan and to use SIMTAS to document it.	Completion of review and approval of change package if required.	5/30/06	Carl A. Everatt Site Facility Representative Champion

Responsible Manager: Carl A. Everatt, Acting, Assistant Manager for Waste Disposition Projects (AMWDP)

SECTION II

Performance Objective WPC-3: Work Control Program Documentation

Opportunity for Improvement #1

WSRC 1Q, Procedure 5.1 “Instructions, Procedures, and Drawings”, Section B “Preparing Procedures/Instructions”, Step (4) needs to clearly identify the various Site work control processes for activities such as Operations, Maintenance, Research & Development, D&D, etc.

WSRC Action	Deliverable	Due Date	Owner/Org
Revise 1Q Procedure 5.1 to identify the various types of work control processes used for all types of work (operations, maintenance, research & development, D&D, etc.)	Review & revise 1Q, Procedure 5.1 to further identify and clarify the various processes contained in Site manuals & procedures for work planning and control (operations, maintenance, research & development, D&D, etc.)	3/31/06	Lori Vaught/Site Quality Services Mgr.

Responsible Manager: Lori Vaught/ Site Quality Services Manager

Opportunity for Improvement #2

Currently 8Q, Procedure 122, Assisted Hazard Analysis (AHA) is the site process for identifying hazards, specifying controls, and work authorization and release for the safe execution of work. This procedure includes requirements for work scope definitions, hazard analysis, development and implementation of hazard controls, performance of work within controls, feedback, applicability to new and revised procedures, and applicability to subcontractor work. The Hazard Category Determination (HCD) process within AHA provides a method for grading hazards associated with an activity so the appropriate hazard analysis tool can be applied and the corresponding level of management review and approval can be obtained. This is implemented via facility Standing Orders which vary from facility to facility as determined by the Facility Manager. The effectiveness of this HCD process via Standing Orders is to be evaluated in an effectiveness review of the facilities in March 06. Additionally, WSRC has recognized the inconsistency in implementation of AHA feedback and post work reviews.

January 6, 2006
 Site Action Plan
 WP&C Commitment 23 – DNFSB Recommendation 2004-1

WSRC Action	Deliverable	Due Date	Owner/Org
1. Include the HCD process in the upcoming facility effectiveness review for the implementation of 8Q, 122 AHA.	1. Perform the facility effectiveness reviews for the implementation of 8Q, 122, AHA.	3/31/06	Bill Rigot, CBU Engineering & QA
2. Revise 8Q, 122 AHA to specify what types of AHA's require a post review.	2. Revise 8Q, 122 to specify post reviews required for "full", and "team" AHAs, and optional for "pre-screened" AHAs.	3/31/06	Jim Tisaranni, CBU Safety Mgr.
3. Improve the AHA feedback mechanism.	3. Rewrite the AHA software to place mandatory controls that require post reviews to be completed on "full" and "team" AHAs before the AHA can be closed.	3/31/06	Jim Tisaranni, CBU Safety Mgr.

Responsible Manager: Jim Tisaranni, Closure Business Unit Safety Manager

Opportunity for Improvement #3

WSRC 8Q15 "Subcontractor Safety Requirements" specifies requirements for oversight of subcontractors. SDD exceeded the requirements of 8Q15 by developing a SDD Subcontractor Review Team to establish consistent safety performance of their subcontractors. This noteworthy practice may be considered for sitewide application.

WSRC Action	Deliverable	Due Date	Owner/Org
Review 8Q15 for possible change based on "best practices" by SDD in the development WSRC-RP-2004-4540 administrative procedure that exceeds the oversight requirements for subcontractors.	Review the SDD WSRC-RP-2004-4540 best practice and determine if this practice should be incorporated in 8Q15 for sitewide application.	3/31/06	Kevin Smith, Owner 8Q15

Responsible Manager: Mark Schmitz, Site ESH Manager

Opportunity for Improvement #4

Documenting turnover is not specifically required by the requirements listed for the CRADS provided by DOE-HQ other than for operations. Turnover requirements for work and maintenance appear to be a good practice for these types of activities. Generally the various projects, such as the nuclear facilities and non-nuclear operations follow 2S Manual, Conduct of Operations. Site D&D Manual, C2, Procedure 2.05 needs to be changed to incorporate the documentation of the turnover to provide objective evidence of performing the management expectation of turnover of responsibilities.

WSRC Action	Deliverable	Due Date	Owner/Org
SDD will revise C2, Procedure 2.05 to incorporate requirements for documentation of turnover.	Revise C2, 2.05 to define responsibilities and expectations for turnover.	3/31/06	Terry Hunter, SDD Work Control Mgr.

Responsible Manager: Terry Hunter, Site D&D Work Control Manager

Performance Objective WPC-7: Work Planning and Control Oversight

Opportunity for Improvement #1

Independent and Self Assessment processes of WSRC 12Q Assessment Manual and SCD-4 currently encompass the Work Planning and Control requirements through multiple functional areas. 12Q Manual describes WSRC's self-assessment process and defines the minimum requirements for the process. The goal of the self-assessment process is to identify and correct problems that hinder the organization from achieving its objectives and to prevent the recurrence of more serious problems. The program consists of assessments that are contractually required, required by procedure, and assessments that are based on management discretion. In reviewing several self-assessment plans (SUD & SDD) it was noted that the existing self-assessment process could result in one or more functional areas not being assessed due to the discretion allowed by the procedure. This discretion needs to be reviewed to determine if the results meet the expectations of the 12Q process.

Currently the primary area for assessing work planning and control is SCD-4 Functional Area 10, Maintenance. However there are other functions that have processes for work planning and control that are not fully integrated with other applicable site procedures. While there is no DOE requirement to have a central system or single functional assessment for WP&C assessments, WSRC has an integrated approach that inter-relates the contractual requirements to the functional area requirements. Even though this process did not hamper work being performed safely or consistently, it was difficult to evaluate the CRAD criteria for WP&C. This appears to be an opportunity where WSRC could further integrate the various work planning and control processes into functional area assessments and site procedures.

WSRC Action	Deliverable	Due Date	Owner/Org
1. Review 12Q Assessment Manual and SCD-4 to determine if this flexibility is intended and acceptable.	1. Review 12Q to determine if the current criteria for management discretion needs to be revised.	3/31/06	Lori Vaught, Site Quality Services Mgr.
2. Review applicable functional areas and Site QA procedures to incorporate the various work planning and control processes.	2. Review functional areas and 1Q procedures to define various work control processes and include CRAD criteria for WP&C as appropriate.	4/30/06	Lori Vaught, Site Quality Services Mgr. Dennis Booth, Site Maintenance Services Mgr.

Responsible Manager: Lori Vaught, Site Quality Services Manager

January 6, 2006
Site Action Plan
WP&C Commitment 23 – DNFSB Recommendation 2004-1

Opportunity for Improvement #2

Review facilities and projects for consistent use of Site Tracking Analysis and Reporting System Issue Reports (STAR) to capture issues for assignment of corrective actions, tracking corrective action to completion, effectiveness review of the corrective action(s), and for tracking and trending. This is a focus area by the WSRC President and is scheduled for another effectiveness review in 2006.

WSRC Action	Deliverable	Due Date	Owner/Org
Perform a site effectiveness review of the consistent utilization of STAR by facilities and projects.	Included in DNFSB 2004-1 Commitment 25, Feedback and Improvement Corrective Action Plan.	NA	NA

SECTION III

WP&C “Good Practices”

	Good Practice	Point of Contact
1.	WSRC Assisted Hazard Analysis procedure 8Q122 and associated Safety Work Permit (SWP) – The assisted hazard analysis process has been enhanced and provided a work authorization control in the form of the SWP. Piloting of the new 8Q122 and the associated SWP has improved the job hazards analysis and the changes have been well received by the work force, particularly the SWP. The WP&C assessment team found 8Q122 and the SWP to satisfy a predominate portion of the WP&C attributes.	Jim Tisaranni WSRC lead for WSRC Manual 8Q, Procedure 122 “Assisted Hazard Analysis” (803)208-3171
2.	WSRC Site Tracking, Analysis, and Reporting (STAR) system and the associated Performance Analysis (PA) system. These relatively new WSRC processes have markedly improved the ability to capture operational information which in turn is improving tracking, trending and feedback abilities. Systems are effective at the facility /project level and at the site/program level.	William Luce WSRC lead for WSRC, Manual 1B, Procedure MRP-4.23 “STAR” WSRC, Manual 12Q, Procedure PA-1 “Performance Analysis”
3.	WSRC “Point Of Entry” (POE) process provides controls for subcontractors, vendors, and visitors to ensure personnel entering the site are properly screened prior to entry to determine the nature of their work and to document who on site that is responsible for them. The process is included in the WSRC 8Q “Safety Manual, Procedure 15, “Workplace Safety and Health Program for SRS Visitors, Vendors, and WSRC/BSRI Subcontracts”.	Kevin Smith WSRC lead for WSRC 8Q “Safety Manual”, Procedure 15 “Workplace Safety and Health Program for SRS Visitors, Vendors, and WSRC/BSRI Subcontracts”. (803)952-9924
4.	WSRC “Time Out” policy provides the ability of workers to place activities in abeyance without resorting to the “Stop Work” action. This has been well received by the work force and is actively promoted by management, including positive recognition of those utilizing the policy. The “Time Out” policy is included in the WSRC 8Q “Safety Manual”, Procedure 1, “Safety Policy and Program Responsibilities”	Kevin Smith WSRC lead for WSRC 8Q “Safety Manual”, Procedure 1, “Safety Policy and Program Responsibilities” (803)952-9924