

WORK PLANNING AND CONTROL IMPROVEMENT

INITIAL PROJECT PLAN

A JOINT INITIATIVE BY

ENVIRONMENTAL MANAGEMENT (EM)

NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)

OFFICE OF HEALTH, SAFETY AND SECURITY (HSS)

ENERGY FACILITIES CONTRACTORS GROUP (EFCOG)

**Final, Revision 0
December 6, 2010**

Prepared by:

James L. Winter 12-1-10
James L. Winter (NA-171) Date

James Hutton 12/1/10
James Hutton (EM-20) Date

Timothy Flake 12-1-10
Timothy Flake (EFCOG WM) Date

Approved by:

Norm Barker 12/1/10
Norman Barker (EFCOG ISM/QA) Date

Robert J. Milazzo 12-1-10
Robert Milazzo (EFCOG Board) Date

James J. McConnell 12/7/2010
James J. McConnell (NA-17) Date

Kenneth G. Picha 12-1-10
Kenneth G. Picha (EM-20) Date

Frank B. Russo 12/7/10
Frank B. Russo (NA-3.6) Date

Pat Worthington 12/6/10
Pat Worthington (HS-10) Date

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Work Planning and Control Improvement Initiative Project Plan

1.0 Introduction

This Project Plan was developed to improve activity level work planning and control (WPC) and to improve contractor assurance and federal oversight of WPC across the National Nuclear Security Administration's (NNSA) Nuclear Security Enterprise (NSE) and Environmental Management (EM) sites. This initiative establishes a commitment by contractors through the Energy Facility Contractors Group (EFCOG), and federal employees within NNSA and EM to improve WPC throughout its operations. Additionally, the Office of Health, Safety and Security (HSS) will engage on matters of WPC policy and implementation.

This project will interface with EFCOG groups focused on Human Performance Improvement (HPI); Safety Culture; Quality Assurance (QA); Environment, Safety and Health (ES&H); Contractor Assurance and Work Management to pursue WPC improvement and integrated solutions.

The Project Plan documents an initial approach for managing the EM/NNSA/EFCOG Work Planning and Control Improvement Project. The Project Plan will be finalized within one year to build upon existing WPC programs at EM and NNSA Sites by sharing best practices and incorporating practices from the Institute of Nuclear Power Operations (INPO), National Aeronautical and Space Administration (NASA), and other external sources.

2.0 Scope

EM and NNSA sites engage in potentially hazardous activities by Management & Operating (M&O)/Prime Contractors and their sub-contractors that encompass research and development (R&D), decontamination and decommissioning (D&D), facility operations and maintenance, and project construction work. Execution of this Project Plan will improve WPC within EM and NNSA sites. This will be accomplished by benchmarking existing practices and gathering/developing tools from internal and external organizations to:

- Develop WPC performance measures to evaluate M&O/Prime Contractor's performance (Focus Area 1);
- Establish a comprehensive WPC toolbox and guidance to address WPC activities and related assurance systems (Focus Area 2);
- Improve the assessment planning and performance for WPC (Focus Area 3);
- Communicate and share best practices (Focus Area 4); and
- Recommend changes to existing DOE directives and Federal direction relating to WPC (Focus Area 5)

Any additional project focus areas, sub-project areas or related initiatives may be added to the scope of this Project Plan upon approval by the Executive Committee.

3.0 Project Execution and Project Management

This project will use project management techniques to govern execution of deliverables. Day-to-day execution will be coordinated between the Project Managers and the respective Project Focus Area Leads. Formal project status and acceptance reviews of Project Focus Area' products will be held with the Project's Executive Committee on a quarterly basis, or more often as warranted.

Project Managers and Focus Area Leads will engage stakeholders from Department of Energy (DOE), EFCOG, and external organizations to learn and further improve WPC at every NNSA and EM site. This interface will extend to the worker and end-user in order to gain a robust perspective.

Management of specific project milestones, task activity scheduling, and task completions is the direct responsibility of the Project Focus Area Leads. In order to declare a milestone complete, the Project Focus Area Leads must address the relevant performance objectives (Section 3.2) and provide supporting documentation to the Project Managers for acceptance.

Changes to a focus area scope, milestones, or overall target completion dates must be approved by the Project Managers with consideration of the project's performance objectives. The Project Managers will review all such changes with the Project Executive Committee in accordance with Section 7.0, Project Change Control.

3.1 Project Organization

The project's Executive Committee includes:

- Norman Barker, EFCOG ISM/QA Group Chair
- Robert Milazzo, EFCOG Board Executive Sponsor
- Frank Russo, NNSA ES&H Safety Advisor (NA-3.6);
- James McConnell, NA-10 Assistant Deputy Administrator for Nuclear Safety, Nuclear Operations and Governance Reform (NA-17);
- Ken Picha, EM Acting Deputy Assistant Secretary for Safety and Security Program (EM-20); and
- Pat Worthington, Director of Health and Safety (HS-10)

The EFCOG Executive Council will be solicited for additional members necessary to support the project.

The Project Managers for this initiative are:

- James Hutton, EM-20 Chief Nuclear Safety Advisor,
- James Winter, NA-10 Integrated Safety Management (ISM) Technical Lead, and,
- Timothy Flake, EFCOG Work Management Sub-Group Chair

Changes to the project's Executive Committee or Project Managers to further improve the Project Plan may be made with the approval of the Executive Committee.

The EFCOG Points-of-Contact (POCs) for this project are:

- John McDonald (WRPS) - Safety Culture Subgroup
- Bill Rigot (SRNS) - Human Performance Improvement Task Group
- Mike Mason (Bechtel National) - Quality Assurance Subgroup
- Tony Umek (SRNS) - Environment, Safety & Health Group
- Jack Anderson (ORNL) - Contractor Assurance Group

Each project focus area has designated DOE and EFCOG Leads. These individuals are expected to interface with each other and Focus Area Support Team members to coordinate completion of their project area milestones. As this Project Plan is carried forward, EFCOG and DOE Leads will work in partnership with to maintain alignment with performance objectives and project milestones.

Organizational interfaces with INPO, the Defense Nuclear Facilities Safety Board (DNFSB) and staff, and other external organizations will be solicited to effectively execute this project plan. Designated POCs for this project are:

- Rick Veerhagen – DNFSB
- George Mortensen - INPO

3.2 Performance Objectives

1. In 6-12 months, evaluate baseline WPC performance and determine candidate tools to improve performance and measures to gauge improvement;
2. In 12-24 months, establish a DOE complex-wide community-of-practice for WPC that effectively guides improvement through the application of established tools; and
3. In 24-36 months, address DOE policy and guidance to effectively lead DOE contractors and the Federal workforce in the effective performance of work planning and control.

3.3 Roles and Responsibilities

3.3.1 Executive Committee

- Provide advice and counsel to the Project Managers as needed. Ensure barriers identified by the Project Managers are successfully eliminated or mitigated.
- Monitor progress of the focus area milestones semi-annually and provide expertise to the project as needed to ensure its successful completion.
- Provide semi-annual status updates to EM and NNSA senior management and the EFCOG Board of Directors.

3.3.2 Project Managers

- Lead the overall project coordination effort and maintain the Project Plan and associated schedules.
- Work with EM, NNSA and EFCOG organizations to identify Project Focus Area Leads and participants.
- Monitor project area milestone completion progress regularly and provide guidance and direction to Project Area Focus Leads as needed.
- Report Project Plan progress and seek acceptance for completion of key milestones to the Project's Executive Committee on a quarterly basis and as needed.
- Identify, maintain and complete project management milestones in Section 7.0.
- Communicate with the EFCOG Executive Council and the DNFSB as needed.

3.3.3 Project Focus Area Leads

- Identify and obtain EM, NNSA and EFCOG participants to support completion of project focus area milestones.
- Define and implement the strategy for accomplishing the project focus area milestones.
- Lead efforts to successfully complete assigned milestones.
- Coordinate project focus area activities with his/her designated co-lead (contractor or federal) and support team members.
- Define project focus area tasks and their completion approach with support team members and leads from other focus areas.
- Participate in Executive Committee meetings, project status meetings and teleconferences.
- Report progress to the Project Managers on a monthly basis.

3.3.4 Project Focus Area Support Team Members

- Participate with Focus Area Leads in the development of Focus Area Tasks to address the scope and performance objectives listed in the Project Plan.
- Accomplish tasks assigned in the Project Plan.
- Coordinate with other Project Focus Area Support Team Members and Leads to assist in the accomplishment of the Project Plan.
- Participate in project status meetings, monthly meetings in assigned focus area(s) and other coordination activities, when available.

4.0 Review and Comment Process for Project Deliverables

The Project Focus Area Leads will follow a two phase process for review and comments of Project Milestone deliverables:

- First Level of Review (2 weeks review/2 weeks comment resolution): Focus Area Leads and Focus Area Team Members

- **Second Level of Review (read-ahead with supporting presentation material – Note: By the due date listed in the project plan and at least 1 week prior to scheduled Executive Committee Meeting to be included): Project Managers**

5.0 Communications

The Project Managers will conduct monthly teleconferences to determine the project area progress with the Project Focus Area Leads. Additional conference calls or meetings will be scheduled if needed. Email, telephone, and video-conferencing will be used, to the maximum extent possible, to communicate progress and coordinate completion of tasks by Project Focus Area teams and with the Project Managers. Individual Project Focus Area teams will determine the communication needs and methods for their specific teams.

6.0 Project Change Control

The WPC Improvement - Initial Project Plan will be maintained as a living document by James Winter (NA-171). Formal revision with change control is required when the Project Scope (2.0) or scope sections in Project Focus Areas are affected. In these cases, Executive Council approval is required. Otherwise, lesser changes can be approved by the Project Managers.

7.0 Project Management Milestones

Routine or one-time tasks to manage the project are identified in the table below and may be updated or added to track necessary actions necessary to support the accomplishment of Focus Area milestones. These tasks will be monitored and accomplished by the Project Managers.

| Task | Due Date | Task Description | Deliverable |
|-------------|-------------------|---|---|
| 1 | 12-31-2010 | Solicit EFCOG Executive Council | POCs for M&O/Prime Contractors |
| 2 | 12-31-2010 | Solicit EFCOG Sub-Groups | POCs for EFCOG Sub-Groups |
| 3 | 1-31-2011 | Establish Meeting with DNFSB | Meeting |
| 4 | 3-31-2011 | Meeting with Project Executive Committee | Quarterly Meeting |
| 5 | 6-30-2011 | Executive Committee Meeting with EM, NNSA, and EFCOG senior leadership | Semi-Annual Meeting |
| 6 | Monthly | Project Manager Meetings w/Focus Area Leads | Meeting |
| 7 | 12-1-2011 | Revision 1 to Project Plan | Project Plan Revision |

Project Focus Area 1 – Identify Performance Measures

Target Completion Date: Determine end date one year after project approval.

Scope

- Develop a generic set of Facility/Activity-level WPC Performance Measures that are capable of identifying improvement and adverse trends for M&O/Prime Contractors. The set of metrics should consider all types of work (R&D, D&D, operations, maintenance, and construction).
- Develop a set of Institutional-level WPC Performance Measures that are capable of guiding EFCOG and DOE in the improvement of WPC, including the identification of adverse trends.
- Develop or identify performance elements for NNSA Contractor Performance Evaluation Plans (CPEP) and EM Performance Objectives, Measures and Commitments (POMC) to measure and incentivize improvements in activity-level WPC.

DOE Lead: Jim Winter (NA-171) **EFCOG Lead:** Fred Berl (LANL)
Don Rack (EM-22)

Support Team: Donna Governor (LLNL)
Steele Coddington (NSTec)
John Martin – ES&H (Portage, Inc.)
Dwain Coppenger (B&W Y12)
David Henderson (B&W Y12)
Earl Carnes (HS-31)
Bruce Stuart (SRS)
Mat Irwin (DOE-RL)
Eric Carlberg (LLNL)
John McNeel (LANL)
Tom Pyburn (LANL)

Project Milestones:

| Task | Due Date | Task Description | Deliverable |
|-------------|-------------------|---|---|
| 1 | 2/28/2011 | Gather WPC performance measures from M&O/Prime Contractors Activity WPC Performance Measures | Performance Measurement Report |
| 2 | 2/28/2011 | Gather WPC performance measures and trend information from external sources for benchmarking (e.g., INPO, NASA) | Benchmark Report |
| 3 | 5/01/2011 | Considering the deliverables from Tasks 1-2 above and Focus Area 2 (Tasks 1-7), develop a model and generic set of Activity-Level WPC Performance Measures for Operations and Maintenance. | Activity-Level WPC Performance Measures |
| 4 | 6/01/2011 | Work with Focus Area 4 to develop an abstract for the 2011 Integrated Safety Management (ISM) Workshop on Performance Measures. | ISM Workshop Abstract |
| 5 | 06/01/2011 | Considering the deliverables from Tasks 1-2 above and Focus Area 2 (Tasks 1-7), develop a model and generic set of Activity-Level WPC Performance Measures for Construction and D&D. | Activity-Level WPC Performance Measures |
| 6 | 06/15/2011 | Considering the deliverables from Tasks 1-2 above and Focus Area 2 (Tasks 1-7), develop a model and generic set of Activity-Level WPC Performance Measures for D&D and R&D. | Activity-Level WPC Performance Measures |
| 7 | 07/15/2011 | Develop Institutional-level WPC Performance Measures. | Institutional-level WPC Performance Measures |
| 8 | 8/31/2011 | Develop presentation for Institutional-level and Activity Level Performance Measures for EM and NNSA Sites at 2011 ISM Workshop and other EFCOG Working Groups. | Presentation and delivery |
| 9 | 10/31/2011 | Develop generic performance elements to improve Activity-Level WPC for use in NNSA Corporate Performance Evaluation Plans in FY 2013. | CPEP Performance Elements |

Project Focus Area 2 – Develop Tools

Target Completion Date: Determine end date one year after project approval.

Scope

- Establish a basis for applying HPI, Quality Control (QC) Inspection Criteria, Safety Culture and Skill of the Craft concepts to WPC.

- Identify tools already established within DOE Sites and outside sources (e.g., INPO, NASA) or develop tools to establish a comprehensive toolbox for improvement of WPC.

- Develop guidance that allows contractors and sub-contractors to apply graded approaches to implementing WPC elements to activity level work for (1) R&D, (2) D&D, (3) Maintenance, (4) Operations (OPS), and (5) Construction. Note: the EFCOG Work Management group has already done some work in this area by publishing the “Six Step Approach to Implementing WPC for all Activity Level Work.” This guidance should include best practices and identify necessary differences in performing activity level work in one area versus another

- Develop guidance on how WPC elements are to be used when performing assessments within Contractor Assurance Systems (CAS) and Federal Line Oversight.

- Establish a complementary set of CAS and Federal Line Oversight (LO) WPC Criteria, Review and Approach Documents (CRADs). This task should include consolidations of a number of “informal” WPC CRADs into a single repository of Lines of Inquiry (LOIs) that assessors, either internal or external, may use when performing WPC assessments at DOE facilities. LOIs related to observance of field activities should be the same for Federal and Contractor WPC CRADs.

DOE Lead: Roger Claycomb (DOE-ID) **EFCOG Lead:** Donna Governor (LLNL)
Brad Davy (HS-12)

Support Team: Fred Berl – HPI (LANL)
Robert (Bob) Carter – QA (WCH)
Chuck Moseley – QA (PEC)
Bill Egbert (LLNL)
Tom Pyburn (LANL)

Project Milestones:

| Task | Due Date | Task Description | Deliverable |
|-------------|-------------------|--|---|
| 1 | 02/01/2011 | Use INPO documents and other available information to develop HPI attributes and an HPI tool box for integration into CRADs. | HPI Attribute Checklist and Tool Box |
| 2 | 12/31/2010 | Apply a graded approach based on risk/hazards and establish a framework for applying QC and inspection criteria in WP&C processes and CRAD development. | QC and Inspection Criteria Framework |
| 3 | 02/01/2011 | Apply a graded approach for work task complexity and develop expectations for defining "Skill of the Craft/Worker" as it applies to WPC processes. | Expectations for "Skill of the Craft/Worker" |
| 4 | Quarterly | Based on Tasks 1, 2 and 3, identify established tools available through EFCOG (example Six Step Process) and at DOE sites or develop needed tools to improve WPC implementation and concept integration for HPI, QC and inspection criteria, and skill of the craft/worker determination. | Establish Tools |
| 5 | 05/01/2011 | Develop guidance to apply a graded approach for Contractor and Sub-contractor work activities in each of the following areas: (1) R&D; (2) D&D; (3) Maintenance; (4) Operations and (5) Construction | Guidance for application to work activities |
| 6 | 06/01/2011 | Develop guidance describing integration of WPC elements with the CAS as described in DOE O 226.1A | Guidance for CAS application |
| 7 | 06/01/2011 | Develop guidance for integration of WPC into federal oversight. | Guidance for LO application |
| 8 | 06/01/2011 | Work with Focus Area 4 to develop an abstract for the 2011 ISM Workshop on WPC tools and assessments. | ISM Workshop Abstract |
| 9 | 07/31/2011 | Produce a comprehensive set of Contractor CRADs for WPC in clear and unambiguous language that incorporates federal oversight elements | CRADs with Contractor and Federal elements |
| 10 | 08/15/2011 | Develop presentation elements for ISM Workshop regarding WPC framework, tools, and CRADs. | Presentation |

Project Focus Area 3 – Apply WPC in Contractor Assurance and Federal Oversight

Target Completion Date: Determine end date one year after project approval.

Scope

- Evaluate the Contractor and Federal Assessment Plans for FY 2011 (EM and NNSA) to determine the degree and methods of WPC assessment.
- Participate in Contractor Assurance reviews and Federal Oversight reviews of work planning and control activities.
- Institutionalize the practice of performing WPC assessment and improvement activities at all EM and NNSA sites.
- Make EFCOG WPC assist visits available to EM and NNSA sites as an independent but assist-oriented source for evaluating the effectiveness of activity level WPC.
- Develop guidance within EFCOG to perform assist visits.

DOE Lead: Tim Henderson (NSO)
Don Rack (EM-22)

EFCOG Lead: Tim Flake (SRNS)

Support Team: Jane Hatfield (B&W-Y12)
Bonnie Barnes (URS - WIPP)
Jim Hoffman (CHRPC)
Bill Egbert (LLNL)

Project Milestones:

| Task | Due Date | Task Description | Deliverable |
|-------------|--------------------|---|--------------------------------------|
| 1 | 01/15/2011 | Establish Review Plan to evaluate M&O/Prime Contractors and Federal (EM and NNSA) FY 2011 Line Oversight and Contractor Assurance System (LOCAS) Plans. | Review Plan |
| 2 | 02/28/2011 | Collect FY2011 LOCAS Assessment Plans at EM and NNSA sites to determine whether WPC is institutionalized. | LOCAS Plans |
| 3 | 3/31/2011 | Perform Review of FY 2011 Assessment Plans and identify gaps in planned assessment activities or scope of WPC oversight. | Report |
| 4 | 5/15/2011 | Establish Recommendations and Corrective Action Plan to institutionalize WPC within LOCAS considering the deliverables from Focus Area 2 (Tasks 1-7). | CAP |
| 5 | 8/15/2011 | Develop presentation elements for ISM Workshop to support Focus Area 2 abstract regarding assessments. | Presentation elements input |
| 6 | Semi-Annual | Perform EFCOG Assist Visits and apply CRADs from Focus Area 2, Task 9 | Schedule and Site Out Briefs |
| 7 | 9/30/2011 | Initiate review of FY 2012 LOCAS Plans | Review Plan |
| 8 | 10/31/2011 | Recommendations to M&O/PRIME Contractors on WPC CAS coverage. | Report |
| 9 | 10/31/2011 | Recommendations to EM and NNSA HQ on WPC LO coverage based upon CRADS from Focus Area 2, Task 9. | Report |
| 10 | FY2012 | Assist M&O/Prime Contractors and Federal Site Offices in the performance of LOCAS activities with consideration of CRADS developed in Focus Area 2, Tasks 9. | Schedule of Assist Activities |

Project Focus Area 4 – Communication Plan

Target Completion Date: Determine end date one year after project approval.

Scope

- Establish and implement a communication plan within the EFCOG Work Management sub-group to share best practices identified as part of this project plan, and also provide networking capabilities to solve crosscutting issues related to DOE complex-wide WPC issues and trends.
- Identify stakeholders from both the contractor/federal community to serve as POCs for direct communication to and from this sub-group
- Establish a periodic WPC forum (e.g., annual ISM workshop) to gather, share and solve complex-wide WPC issues.
- Identify tools already established within DOE sites and outside sources (e.g., INPO, EPRI, and FAA) to benchmark how other regulated industries share best practices.
- Develop/identify a network base (e.g., the EFCOG Work Management sub-group), tools (e.g., DOE lessons learned system), and a method to share information across the DOE complex related to major WPC incidents.

DOE Lead: Mat Irwin (DOE-RL)

EFCOG Lead: Paul Wasilko (B&W-Y12)

Support Team: David Henderson (B&W-Y12)
Steve Little (B&W-Y12)
Bonnie Barnes (URS - WIPP)

Project Milestones:

| Task | Due Date | Task Description | Deliverable |
|-------------|--------------------|---|------------------------|
| 1 | 3/31/2011 | Establish a communication plan within EFCOG Work Management sub-group to share Best Practices identified as part of this project plan for WPC across the DOE enterprise. | Report |
| 2 | 3/31/2011 | Identify stakeholders from both the contractor/federal community to serve as POCs for direct communication to and from this sub-group. | Report |
| 3 | Semi-Annual | EFCOG Semi-Annual Meeting w/WPC | Meeting |
| 4 | 6/01/2011 | Develop WPC Performance Measures Abstract for ISM Workshop | Abstract Report |
| 5 | 6/01/2011 | Develop WPC Tools and Assessment Abstract for ISM Workshop | Abstract Report |
| 6 | 9/30/2011 | ISM Workshop Participation | Presentations |

Project Focus Area 5 – Federal Initiatives

Target Completion Date: Determine end date one year after project approval.

Scope

- Evaluate existing federal direction, DOE guidance and DOE Policy on WPC and make recommendations for change. Consider relevant benchmarks in other industries (e.g., INPO).

- Establish Corrective Actions for DOE Policy, Requirements and Guidance and direction from EM and NNSA in WPC.

- Develop Performance Evaluation Measures for use in M&O/Prime contracts in the areas of WPC.

DOE Lead: Jim Winter (NA-171)
Jim Hutton (EM-20)
Ali Ghovanlou (HS-10)

EFCOG Lead: Steele Coddington (NSTec)

Support Team: John Martin (ES&H) (Portage, Inc.)

Project Milestones:

| Task | Due Date | Task Description | Deliverable |
|-------------|------------------|--|---|
| 1 | 3/31/2011 | Benchmark relevant WPC Policy and Guidance in other industries. | Benchmark Report |
| 2 | 4/30/2011 | Evaluate WPC Policy, Requirements and Guidance in DOE Directives | Evaluation Report |
| 3 | 5/31/2011 | Evaluate EM and NNSA WPC direction | Evaluation Reports |
| 4 | 5/15/2011 | Develop Contractor Performance Evaluation Measures and Incentives for WPC | NNSA CPEP Input EM - POMC from FY10 ISM/QA declaration |
| 5 | 7/31/2011 | Establish Corrective Actions resulting from evaluations in Tasks 2 and 3 | Corrective Action Plan |