



EWP Updates

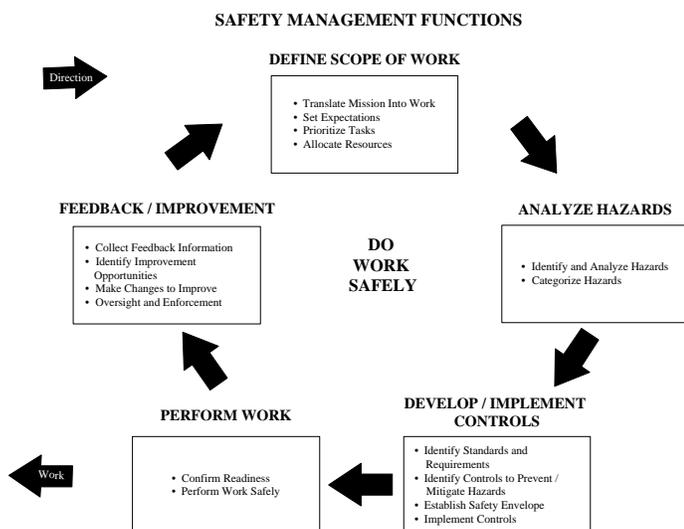


Introduction

At the Rocky Flats Environmental Technology Site, the Department of Energy, Kaiser-Hill, Safe Sites of Colorado and Rocky Mountain Remediation Services, with support from EH Technical Assistance personnel, are conducting a cooperative effort to improve worker safety and productivity in all phases of work planning and execution that includes personnel involvement, ownership, efficiency, and productivity.

Purpose

Enhanced Work Planning is the natural implementing vehicle for the five key elements of the Defense Nuclear Facility Safety Board recommendation 95-2. These key elements -- work scope reviewed and prioritized; work scope analyzed for hazards and categorized based on risk; controls established based on hazards, risk, and experience of workers; work performed safely, efficiently, with appropriate degree of supervision; and continuous improvement and lessons learned -- encompass the essence of an effective, efficient, and safety conscience work process. EWP serves as a tool to implement the Integrated Safety Management (ISM) process. The ISM process explains how safety is integrated into management and work practices at all levels.



Process Description

Enhanced Work Planning (EWP):

EWP is a process that evaluates and improves the program by which work is identified, planned, approved, scheduled, coordinated, controlled, and executed. The key elements of EWP are:

- Line Management Ownership**

EWP must be sponsored (not imposed upon) by line management. Successful EWP projects are characterized by managers with a positive attitude about safety and work efficiency, who seek the organizational support necessary to implement EWP tenants; and have the leadership skills, knowledge, and authority to use EWP to improve their programs.
- A Graded Approach to Work Management, Based on Risk and Complexity**

Varying levels of hazards, hazard controls, and work complexity dictate that not every work task requires the same degree of rigor in planning and execution. EWP helps sites develop criteria for determining which tasks can be performed better, faster, safer, and cheaper by relying on the skill-of-craft.
- Worker Involvement Beginning at the Earliest Phases of Work Management**

"Worker" refers to everyone with a role in accomplishing the work. The unique perspective of line workers injects "reality" into the work management process. Workers' morale improves when their opinions and expertise are demonstrably valued.
- Organizationally Diverse Teams**

Work management teams consist of the personnel responsible for overall planning and execution of the task. These personnel may include: planners, engineer, workers, safety and health professionals, radiological control specialists, trainers, and line managers.
- Communication and Lessons Learned**

Considerable time and money can be saved by building on existing, successful programs from other DOE sites. Programs, procedures, software tools, and training courses are freely shared among EWP sites to minimize duplicative efforts and maximize resource utilization.

Goals

The RFETS Enhanced Work Planning program is designed to provide a safer, more efficient work environment by:

- Encouraging worker participation in the initial work planning process to enhance the effectiveness of safety and work efficiency.
- Ensuring hazard analysis and controls are appropriate for the job.
- Improving worker knowledge of safety requirements.
- Fostering teamwork between hourly and salary personnel.
- Improving the technical accuracy and workability of work packages.
- Balancing the degree of work instruction, skill-of-craft, and worksite supervision.
- Reducing the overall time to plan, review, and approve work packages.
- Promoting realistic, resource loaded schedules.
- Enhancing job coordination and improving the efficient execution of the work.
- Continuous improvement through real-time feedback.

These goals will be measured using an Employee Feedback Survey and data retrieved from the work process.

Enhanced Work Planning considers the entire work process and continually asks the questions necessary to implement a safer, more efficient work control process. However, in the traditional approach to the work control process, technical specialists, management, and workers are given work packages for review during various phases of the work planning process. When changes are made by one or more of the reviewers, the package must be reviewed again by all parties. This sequential review process is inefficient and tends to create conflict between planners, reviewers, and workers. Enhanced Work Planning is designed to improve the traditional work control process, primarily through extensive communication and feedback from the appropriate mix of personnel responsible for the work.

Pilot Updates

Safe Sites of Colorado (SSOC), Rocky Mountain Remediation Services (RMRS), Kaiser-Hill personnel, and the EH Mentor continue working together in taking the actions necessary to effectively implement Enhanced Work Planning (EWP) pilots at the Rocky Flats Environmental Technology Site (Site). These pilots demonstrate the initial implementation of the Integrated Safety Management (ISM) work control process-using practical EWP tenants and methods. It should be noted that EWP methods apply to all facets of work control; i.e., from the initiation of a problem to

final close-out and post job feedback. This also includes resource allocation, scheduling, job coordination, work execution, and resolving problems in the field.

Although SSOC and RMRS are the first contractors to embrace implementation of ISM using EWP, other contractors are encouraged to join the effort to improve the work control process using EWP practices.

While SSOC has an approved EWP Pilot Instruction and RMRS is expected to have their EWP Pilot Instruction approved shortly, both companies are working together to implement the five core safety management functions. Kaiser-Hill personnel interface regularly with both companies to ensure a consistent integrated approach. The EWP Pilot Instruction contains measurable goals that will provide insight to guide the work control improvement process. The SSOC EWP Pilot Instruction is now on the EWP Internet home page for reference by other organizations. (Location: <http://tis-nt.eh.doe.gov/wpphm/ewp/ef.htm>)

On Tuesday, June 3, the first EWP planning meeting was conducted for the initiation of a Building 374 project. The Building 374 liquid glovebox transfer, a joint SSOC and RMRS project, consists of installation of a special glovebox and minor modifications to one of the liquid waste treatment lines in Building 374 in order to process approximately 5000 gallons of laboratory liquid wastes. These wastes currently belong to SSOC who is the landlord for Building 374. RMRS operates the Building 374 waste processing systems and will be accepting ownership of the waste material after processing.

During this first EWP planning meeting, a multi-disciplined Scoping Team was formed to develop a draft project scope for Building 374. The tasks of this team include: Developing the task list for the required project activities; providing the sequencing for these tasks to be performed; developing potential options for accomplishing the project; and questions that need to be resolved. Once this is accomplished, the Scoping Team will be absorbed into the larger Working Team. The Working Team, also a multi-disciplinary group, will then proceed to take the products of the Scoping Team and continue to develop the detailed work plans, schedules, and resources.

RMRS has initiated an EWP pilot for the safe shutdown of the 444 Building cluster project. The 444 cluster buildings were previously manufacturing buildings used to process beryllium and depleted uranium. This project will put these buildings in a safe, shutdown configuration such that these buildings can be completely closed and only require a yearly inspection. In order to shutdown the buildings, combustibles will be removed, loose contamination stabilized, and all utilities shut off. Similar to the Building 374 project, the 444 cluster project is also in the initial stages of forming a Scoping Team to initially define the tasks required to complete the

project. Budgeting has been secured to permit moving forward with the project, and the Scoping Team is now being formed.

Building 886, operated by Los Alamos Technical Associates (LATA) for SSOC, was used to perform criticality experiments. The present mission of the facility is to complete deactivation by September 30, 1997. The project requested the support of EWP to complete their schedule on-time and safely. This EWP pilot has involved removing utilities from the room 103 glovebox and downdraft unit; and removing the annular tank. Two walkdowns have been conducted in support of these tasks. The walkdowns proved positive with all parties providing good input. In addition, the job hazard analysis (JHA) checklist, which was completed during the walkdown, was viewed as a helpful tool by all participants.

Building 776, operated by SSOC, was used as a plutonium processing building. The EWP pilot in Building 776 entails removing pencil tanks used for storage of glovebox machine oil. The initial EWP walkdown on the Pencil Tank Removal Project was conducted and proved to be successful. During the initial briefing prior to the walkdown, the general opinion of the Working

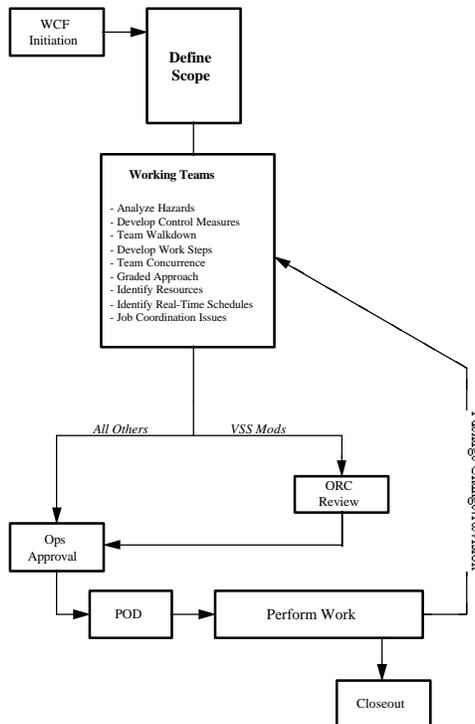
Team was that “we have walked this job down four times already.” However, after the Working Team completed the walkdown, their opinions had significantly changed. Statements were made such as: “Why haven’t we been doing this before?”; and “This was a big help. It helped us to see things we hadn’t thought of before, and further opened the door for more discussion.”

Building 771, operated by SSOC, was a plutonium processing facility and is now being prepared for deactivation. The first EWP pilot for this facility is the Benelux Removal Project. This pilot project is a joint effort between the EWP Core Team and the Nuclear Facilities Re-engineering Team. This project will remove shielding material (Benelux) from glovebox lines. The EWP walkdown was performed and the outcome had mixed results. The EWP Program Manager and the Nuclear Facilities Re-engineering Team are working closely with the working team to ensure the success of the project and have already achieved positive results.

All pilots described in this update are in support of performance measures for FY97.

Work Flow Process using EWP Concepts

The diagram below shows the work flow process using the concepts of EWP.



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