

RELATIONSHIP OF DOE SAFETY IMPROVEMENT INITIATIVES

If you've been confused about the many DOE Safety Improvement Initiatives, you're not alone. Over the past several years, different organizations at DOE Headquarters have piloted different environment, safety, and health initiatives in order to promote improved worker and public safety and protection of the environment. To many workers these initiatives were viewed as stand alone, independent, and competing programs but that is no longer the case. Recognizing that different initiatives have similar objectives and similar essential elements or principles, DOE headquarters has directed DOE sites to integrate all elements of ES&H for all work into one ES&H system designated as **Integrated Environment, Safety, and Health Management System**. These separate initiatives which are active programs at the PHMC include Voluntary Protection Program (VPP), Enhanced Work Planning (EWP), and International Standards Organizations programs (EMS or ISO 14000). Each of these initiatives and programs (and others) play an important part in safety and environment protection and together are important tools of the PHMC Integrated Management System.

Secretary Richardson has directed all DOE sites to verify that Integrated Safety Management is in place by September 2000. This includes integration of any other safety initiatives and programs such as VPP, EWP, and ISO 14000. He further stated that the ISM program needs to go beyond its concepts and principles and the DOE contractors and Federal Managers need to establish the elements of meaning oversight, enforcement, and accountability.

The Integrated Environment, Safety, and Health Management System, ISMS, is the one PHMC safety management system to systematically integrate safety into management and work practices at all levels as required by the Safety Management System Policy (DOE P 450.4). The Department of Energy Acquisition Regulation clause, 48CFR970.5204-2, requires that contractors submit documentation of their ISMS for Department review and approval. The various facilities and contractors of the PHMC are diligently working toward implementing ISMS in preparation for the ISMS verification.

Below let's see how VPP, EWP, and Environmental Management System (ISO 14001) each contribute similar essential elements or principles to support the PHMC ISMS. The common elements include 1) worker involvement, 2) feedback and improvement, and 3) management responsibilities.

First, let's focus more closely on ISMS and its relationship to the feedback and improvement process.



ISMS

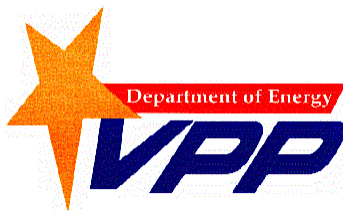
DOE Policy P 450.4 establishes DOE's expectations that will be performed safely through the development and

implementation of ISMS. The policy identifies five core functions for ISMS including feedback and improvement. DOE's Safety Management System Guide, DOE G 450.1, discusses key elements of feedback and improvement processes and provides an overview of the relationship between assessment activities at the task, facility, and institutional level. The guidance document mentions several attributes of effective feedback and improvement systems that overlap elements of worker-based processes such as the importance of line management self-assessment, worker feedback, identifying improvement opportunities, and collecting worker suggestions.

ISMS is a safety management system to systematically integrate safety into management and work practices at all levels. The Safety Management System Policy (DOE P 450.4) requires that feedback information on the adequacy of controls is gathered, opportunities for improving the definition and planning of work are identified and implemented, and line and independent oversight is conducted. Additionally, the integrated safety management policy requires that performance is monitored and assessed for improvement. A self-assessment program is clearly a part of any effective ISMS.

Self-assessment at the task level by is the foundation for effective feedback and improvement. Technically inquisitive, aggressive self-assessment by all workers and supervisors provides assurance that weakness will be identified in a timely fashion and that potential improvements will be proposed. Internal oversight by contractor management and external oversight by DOE field and headquarters management is used to verify that self-assessment at the task level is performing well.

The feedback and improvement processes established at the activity level reinforces several guiding principles for ISMS. For example, line management should be directly accountable for self-assessment processes in accordance with ISMS Guiding Principle, Line Management Responsibility for Safety. Furthermore, roles and responsibilities for self-assessment need to be clearly delineated within the line organization. Expectations regarding feedback and improvement activities to be performed by workers, supervisors, and managers should be explicitly stated to provide sufficient levels of accountability.



VPP

The Voluntary Protection Program (VPP) recognizes excellence in contractor implementation of programs and processes to protect the health and safety of workers.

Contractors are required to demonstrate that their safety and health programs satisfy five critical elements along with numerous sub-elements. Contractors perform a comprehensive self-evaluation, implement programmatic improvements to address any gaps identified, and then submit an application to DOE for recognition. DOE then performs an independent evaluation to verify that contractors have effectively implemented programs and processes that achieve the five critical elements. The five VPP elements are

1. management leadership and commitment
2. employee involvement
3. worksite analysis
4. hazard prevention and control
5. safety and health training

As all of you who are familiar with VPP know, achieving recognition is only the beginning. The underlying principle of VPP is feedback and continuous improvement, which seems to be the common thread throughout the current DOE Safety initiatives.

Worker involvement in self-assessment activities contributes to contractor participation in VPP in several important ways. Worker involvement is a guiding principle for implementation of ISMS and a major element of VPP. An effective VPP requires that employees at all levels participate in implementation of the health and safety program and in decisions that affect health and safety. Implementation of tools and processes that promote worker involvement in feedback and improvement activities contributes significantly to achieving this element of VPP. Increasing worker involvement in feedback and improvement processes directly supports safety and health performance as well as increasing efficiency and productivity. Worker involvement in all aspects of planning, performing and evaluation of work activities is essential for the Department and the PHMC to fulfill its assigned mission.. Consequently, conducting a self-assessment program using the appropriate mix of tools and workers will contribute substantially to improving performance.

As part of the management leadership element of VPP, one of the key sub-elements is to establish a system for evaluating the health and safety programs. Implementation of tools that involve workers in evaluation of task level safety and health performance contributes to achieving this element. An important part of another VPP element, worksite analysis, is that employees have a reliable system to notify management about conditions that appear hazardous and to receive timely and appropriate responses. A strong employee suggestion program and a well-implemented post job review process can help achieve this objective. Finally, management walkabouts contribute significantly to the visible management involvement that is required under the VPP element of management leadership. These walkabouts specifically help line managers to ensure that the workplace for their employees is safe and healthful, and ensures that the line managers are routinely accessible to employees to discuss potential health and safety issues.



EMS

In conjunction with implementation of ISMS, many DOE sites are also developing and implementing formal Environmental Management Systems (EMS) to achieve excellence in protection of the environment. The ISO 14000 series of standards developed by the International Organization for Standardization (ISO) provides a framework for developing effective

EMS. The goals of implementing a new EMS are to control risks to and liabilities associated with an operation's effect on human health and the environment and to manage environmental activities to obtain a business advantage. The EMS helps to ensure that environmental protection is built into each work activity and therefore compliments and contributes to the implementation of ISMS.

Worker involvement in feedback and improvement activities contributes substantially to meeting requirement for an effective EMS as defined in ISO 14001. Under the required element of environmental policy, worker involvement in self-assessment helps to implement senior management's commitment to continuous improvement (there's that term again). The element of checking and corrective actions includes sub-elements regarding monitoring operations and activities that could have environmental impact and performing periodic reviews of implementation of programs and procedures. Implementation of programs and processes to involve workers in feedback and improvement help organizations that are developing EMS to achieve these critical elements.



EWP

The Department's Enhanced Work Planning (EWP) initiative focuses on improving processes for planning and performing work. This effort is an important element in implementing ISMS at the task level. EWP has produced numerous highly beneficial tools to strengthen analysis of hazards associated with performing work, improve quality of work packages and ensure that workers performing tasks provide input to preparation of the work package. Implementation of EWP will produce significant savings and cost avoidances at Hanford.

Enhanced Work Planning is a process that evaluates and improves the program by which work is identified, planned, approved, controlled, and executed. The key elements of Enhanced Work Planning are line management ownership; a graded approach to work management, based on risk and complexity; worker involvement beginning at the earliest phases of work management; organizationally diverse teams; and organized, institutionalized communication.

Although started as a DOE Initiative, Enhanced Work Planning has evolved into a "grass roots" initiative championed by the sites and facilities who initially piloted it. Although not mandatory by any present DOE Order, the EWP process and principles are effective tools to facilitate implementation of Integrated Safety Management at the activity level. This process can be used to improve how work is requested, approved, planned, executed and analyzed. EWP continues to grow throughout the complex because, over time, its use promotes safer, faster and cheaper work planning and accomplishment.

Worker involvement in feedback and improvement activities supports implementation of EWP including the essential element of worker involvement. Increasing worker

involvement in feedback and improvement, particularly in the areas of evaluating work planning and performance, therefore directly contributes to realizing the benefits of EWP. When workers are engaged in activities such as job planning and post job reviews, they are providing feedback to line management that supports continuous improvement. They are also reinforcing the value of worker involvement in all activities performed to support the mission.

An important element for EWP is feedback, evaluation, and continuous improvement. Effective self-assessment processes that involve workers contribute substantially to achieving this essential element. A variety of tools can be used to elicit feedback including job observations, manager and employee walkabouts, post job review. Use of these tools promotes continuous improvement and builds self-evaluation into all activities performed by workers.

So, as the Hindus say, *"there is only one divine principle (Safety), the many gods (programs) are only aspects of that unity"*.

Author: Jim Dickman, Fluor Hanford