



MSA
Mission Support Alliance

S A F E T Y T O O L B O X



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Who is Responsible for My Safety When I am Working?

The Integrated Safety Management System (ISMS) guiding principles state that ISMS is a management system that integrates environment, safety, health, and quality into work activities. Think of it this way: management is responsible for creating and maintaining the safest working conditions possible for all employees, the public, and the environment.

Management implements hazard controls using a hierarchy of controls system which includes: elimination and/or substitution, engineering, administrative controls, and personal protective equipment (PPE).

But remember, ultimately, *YOU* are still responsible for working safely.



Integrated Safety Management System

What is the ISMS?

Definition: ISMS is the systematic integration of organizations, requirements, roles and responsibilities, and documents, which together establish a safe working environment and culture. In other words, it is a systematic, common-sense approach to working safely.

What Does Working “Safely” Mean?

Working safely means working in a manner that ensures protection of employees, the public, and the environment from harm.

What is the Objective of ISMS?

ISMS’s goal is to integrate management systems (implementing mechanisms) to create a safe environment and safety culture, so that no injuries to the employee, damage to the environment, or harm to the public occur. To achieve the ISMS objective, DOE P 450.4, *Safety Management System Policy*, established the ISMS core functions and guiding principles.

The ISMS description is documented in MSC-PLN-WP-003, *Integrated Environment, Safety, and Health Management System Description*.

The ISMS website is located at:

<http://msc.rl.gov/ims/page.cfm/ISMS>

ISMS Core Functions and Guiding Principles

The five core functions provide the necessary structure for any work that could potentially affect the safety of employees, the public, and the environment. The core functions are applied as a continuous cycle with the degree of rigor appropriate for the type of work activity and the hazards involved. The nine guiding principles are the fundamental policies that guide the U.S. Department of Energy (DOE) and contractor actions all the way from the development of safety directives to performance of work.

Safety Depends on Implementing all Core Functions and Guiding Principles. If just one core function or guiding principle is not implemented or understood, the circle of safety is at risk.

The core functions and guiding principles, and their implementation within Mission Support Alliance (MSA) are discussed on the following pages.



ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

CORE FUNCTION 1: Define the Scope of Work

The objective of Core Function 1 is to define the work activities necessary to achieve the MSA mission in a safe and environmentally sound manner. This includes clearly defining the work activity so that:

- Assigned workers are involved in work planning to enhance hazard analysis:
 - Work tasks are identified and understood
 - Expectations are set
 - Resources are allocated
- MSA defines and implements their work scope through:
 - Multi-year work scope
 - Procedures
 - Preventive maintenance recall system
 - Work packages
 - Job requirements
 - Daily task assignments
 - Management direction



ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

CORE FUNCTION 2: Identify and Analyze the Hazards

The objective of Core Function 2 is to identify and analyze hazards associated with work.

Hazards are identified and addressed within MSA through:

- Employee Job Task Analysis (EJTA)
- General Hazards Analysis (GHA)
- Craft-Specific Hazard Analysis (CSHA)
- Work request screening
- Job walk downs and reviews
- Safety meetings
- Stop work authority
- Safety inspections
- Job hazard analysis checklists
- Field experience & lessons learned
- Safety data sheets
- Office safety
- Ergonomic reviews



ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

CORE FUNCTION 3: Develop and Implement Hazard and Environmental Controls

The objective of Core Function 3 is to develop and implement hazard and environmental controls that support working safely. Within MSA, this includes the following:

- Global Harmonization Safety Data Sheets
- Lock & Tag program
- Job hazard analysis checklists
- General Hazard Analysis
- Craft-Specific Hazard Analysis
- Forms, permits, and plans
- Pre-job meetings
- ALARA (As Low As Reasonably Achievable) program
- Safety meetings
- Stop work authority
- Work environment awareness



ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

Lockout/Tagout Program

MSA uses DOE-0336, *Hanford Sitewide Lockout/Tagout*, to protect workers during servicing or maintenance on facility equipment or systems where the unexpected operation or re-energizing of the system could cause an injury.

Unless you have specialized Lockout/Tagout (LOTO) training, each employee is responsible for the following:



- Never operate tagged equipment
- Stop personnel from operating tagged equipment
- Never remove locks or tags
- Report LOTO violations
- Discuss equipment access with facility management
- Do not enter areas demarcated as “Controlled Work Areas.”

Controlled Work Areas identify where LOTO is being used to control hazards.

All employees are required to comply with LOTO requirements. Violation of the LOTO program is serious and could result in disciplinary action, injury or death.



ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

Electrical Safety

On **every electrical** job and **every** time conditions change, workers should ask the same key questions. These are words qualified electrical workers live by:

- Has a LOTO been completed for possible power sources I could be exposed to in my work area?
- Do I have my volt meter to perform additional checks before putting my hands on electrical equipment?
- Do I have my personal danger tag, PPE and tools to perform the task?
- Do I know and understand my task?
- Are **ALL** proper electrical hazard barriers and postings in place to keep people away from electrical hazards?
- Have I reviewed the results of the shock hazard analysis and arc flash analysis?
- Have **ALL** electrical components been checked and de-energized?

Half of all electrical accidents on DOE projects involve non-electrical workers on non-electrical jobs.



ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

Employee Training and Qualification



Medically Cleared & Qualified Worker

The MSC-PLN-WP-003, *ISMS Description*, specifies that: “Only trained and qualified workers are assigned to perform work within the MSA and for other Hanford contractors (OHC). MSC-PLN-TQ-011, *MSA Qualification and Training Plan*, describes a training management system that is designed to promote a safe and compliant work environment.

An EJTA is required for all employees. It identifies physical and chemical exposure hazards, and the results determine the medical programs that apply to the position.

Once these requirements have been identified, results are documented in an employee training plan. MSC-PRO-TQ-164, *Integrated Training Electronic Matrix (ITEM)*, describes a suite of training tools to assign, track, and ensure completion of required training, qualification, and medical clearance prior to workers being assigned to perform tasks.

An assigned Training Coordinator generates and maintains employee training plans using the ITEM Web Portal, which allows access to:

- Training Selection Tool
- Enterprise Learning Management
- Radiological Site Support Training Database
- Hanford Site Worker Eligibility Tool
- Worker Authorization Matrix,
- Hanford Online Training
- Training Reports

ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

Enhanced Work Planning

The enhanced work planning (EWP) process evaluates and improves the program by which work is identified, planned, approved, controlled and executed.

The key elements of EWP are:

- Line management ownership
- Graded approach to work management based on risk and complexity
- Worker involvement beginning at the earliest phases of work management
- Organizationally diverse teams
- Organized, institutionalized communication.

EWP is integrated into the work control program.

Pre-Job Briefings

Safety depends on all employees at a pre-job briefing being actively engaged in the discussion. The pre-job briefing is the **final confirmation of readiness** — the workers are prepared, the work scope is adequately defined, hazards are identified, and all remaining questions, including the following, are answered. Employees assigned to an in-progress job are required to complete the pre-job briefing.

Pre-Job Briefing Questions

1. What are the scope and the critical steps of this task?
2. What are your individual responsibilities?
3. What is the worst thing that can go wrong?
4. What barriers or defenses are needed?

CORE FUNCTION 4: Perform Work Within Controls

The objective of Core Function 4 is to implement safety and environmental controls to confirm readiness before starting work and, once work begins, to perform within those controls. Within MSA, implementing this core function includes the following controls:

- Pre-job meetings
- Personal protective equipment
- Lock and Tag program
- Procedure compliance
- Skill-based work, no planning required
- Stop work authority
- Work package review
- Detailed work instructions
- Operations work release
- Safety logs
- Conduct of operations
- Safe work practices



ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

CORE FUNCTION 5: Provide Feedback and Continuous Improvement

The objective of Core Function 5 is continuous improvement of employee safety. This core function is implemented through processes that apply operating experience and lessons learned to future work, which completes the ISMS continuous cycle. Within MSA, implementation of this core function includes the following:

- Post-job review and job control system record
- Feedback database
- Safety and health inspections
- Safety logs
- Corrective action management
- Safety ideas and issues
- Safety meetings
- Drill program
- Lessons Learned program
- Occurrence reporting
- MSA disciplinary policy
- Job turnover and status



Ways to Provide Feedback

Employees should contribute to the feedback and improvement process by reporting issues on jobs as soon as they are identified.

The types of issues to identify include the following:

- Any unplanned events including stop works
- Problems with work instructions, materials, training or Environmental, Safety & Health (ES&H)
- Other issues affecting work performance

Besides reporting issues, employees can provide feedback by the following:

- Actively participating in Plan of the Day
- Submitting lessons learned
- Discussing them during the annual performance review
- Hanford General Employee Training and (MGET) comment section
- Intranet and SharePoint¹ point of contact
- Submitting topics for the Monday morning *Safety Start* bulletins
- Reporting a safety concern to your manager/ supervisor, your Hanford Atomic Metals Trade Council, Hanford Guards Union, or Building Trades Safety Representative, or the Employee Concerns Hotline.

¹SharePoint is a trademark of Microsoft Corporation, Redmond, Washington.

ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

Lessons Learned

A “lesson learned” is either a positive or a negative work experience that is shared to promote learning and for applying the lessons learned to future similar situations.

A positive experience is shared for benchmarking, applying creative ideas, a safety innovation, or a practical approach elsewhere. Learning lessons from a bad or tragic experience—one that no one wants to repeat—may be even more important.

OPEXShare is the system DOE and MSA use to ensure that important lessons are systematically evaluated and implemented to promote continuous improvement. The performance objective of OPEXShare is to incorporate relevant organizational learning and associated recommendations into work processes to proactively prevent operational events.

MSC-PRO-PA-067, *Operating Experience Program*, is the governing procedure for developing and receiving external and internal lessons learned.

Read your coworkers’ lessons learned or submit your own work lessons through the Lessons Learned website:

opexshare.doe.gov



MSA's Employee Recognition Awards Programs

Employees need feedback too. MSA participates in the following safety awareness and recognition programs:

- STAR and LIVE Awards
- President's Lifesaving or Safety Honor Roll Award
- On-the-Spot Safety Award
- Safety Performance Incentives Program
- Kathryn Wheeler Safety Leadership Award
- Environmental Leadership Award Program



MSC-GD-WP-40148, *Safety Awareness and Recognition Program*, includes the following examples:

On-the-Spot Safety Awards are presented as immediate recognition of safety consciousness by employees and awarded by Employee Zero Accident Council (EZAC)/management.

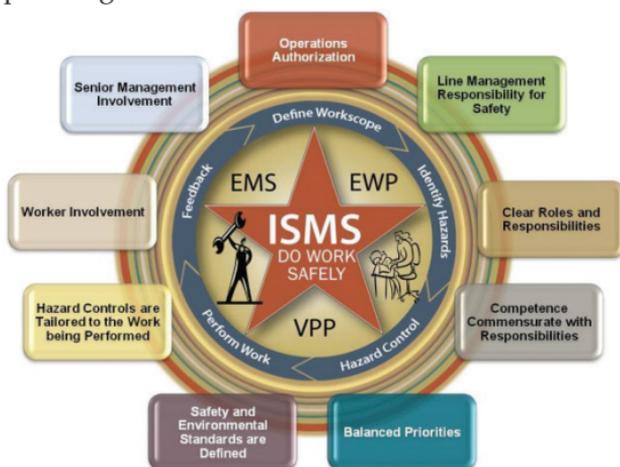
Performance Incentives Program for Safety is designed to promote overall safety performance toward achieving MSA's safety goals including safety meeting attendance and participation in other safety activities as listed in the above procedure. Progress toward the goal is evaluated on a trimester basis.

ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

Guiding Principle 1: Line Management Responsibility for Safety

Line management is responsible for the protection of the workers, the public, and the environment. Implementation of this guiding principle is demonstrated by the following actions:

- Supporting individual ownership of safety
- Communicating MSA safety values, safety expectations, and safety policies
- Managers visibly addressing safety issues
- Displaying an acute understanding of work activities
- Fostering worker involvement in safety and work planning



Guiding Principle 2: Clear Roles and Responsibilities

Clear roles and responsibilities require the following:

- A clearly stated organizational structure
- Clear lines of authority for safety at all organizational levels—company, project, and activity
- Line management responsibility for directing and conducting work safely
- Organization charts, which can be found on the MSA Web page.



Clear lines of authority and responsibility for ensuring safety is established and maintained at all organizational levels within MSA and its subcontractors.

ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

Guiding Principle 3: Competence Commensurate with Responsibility

Competence Commensurate with Responsibility (CCR) is demonstrated when employees have both of the following qualities:

- The experience, knowledge, skills, and ability to perform their assigned duties
- The correct training and qualifications for their tasks.

Before beginning work, all employees must be trained and qualified for the tasks assigned. Training requirements are determined by management and are identified through use of ITEM. Individual training requirements are captured in training plans and are approved by your manager.

Further information regarding ITEM and a suite of training tools can be found on the MSA HAMMER/Hanford Training website or by reading MSC-PRO-TQ-164, *Integrated Training Electronic Matrix*.



ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

Guiding Principle 4: Balanced Priorities

To implement ISMS, MSA managers balance priorities when setting the work scope, schedule, and cost of activities so that all work can be delivered safely.

Having balanced priorities also means having adequate operations and ES&H resources to provide workers with CCR to perform all work safely with appropriate safety oversight.



Resources are effectively allocated to address safety, programmatic and operational considerations. Protecting the public, the worker, and the environment is a priority whenever activities are planned and performed.

Guiding Principle 5: Identification of Safety and Environmental Standards and Requirements

Designated Technical Authorities establish their company's safety and environmental programs based on federal, state, and local codes, recognized national standards, and accepted best practices. The methods, processes, and responsibilities for implementing the safety and environmental programs are prescribed in company policies, procedures, and instructions.

Before a specific instance of work is performed, subject matter experts, together with work planners, the workers, and management (i.e., *the work team*) evaluate the requested work scope, including the potential hazards of the job, tools, materials, and work location. As part of the planning process, the work team agrees to the applicability and methods for implementing these standards and requirements for each job before starting the work.



Guiding Principle 6: Hazard Controls Tailored to Work Being Performed

Hazard controls are developed at the company, project, and activity levels based on a hazard analysis of the work activity. These controls are developed with a priority for those controls least dependent on employee actions. This is defined as hierarchy of controls. The most preferable hazard controls are first in the following list:

- Eliminate the hazard(s) when at all possible and, if not possible, use less hazardous substitutes
- Use engineering controls such as engineered berms, systems, or shields
- Use administrative controls such as manuals, procedures, health and safety plans, technical safety requirements, and pre-job briefings
- Use PPE such as anti-contamination clothing, safety glasses, and fall protection equipment.



Guiding Principle 7: Operations Authorization

In general, work authorization is a three-step process:

1. **Approval** - Supervision accepts a work document as defining the scope of work, identifying and mitigating hazards, and providing work direction to accomplish the task.
2. **Authorization** - Management confirms that materials and the work document are ready and places the work activity on the Plan of the Day schedule.
3. **Release** - Management releases work to begin. The degree of rigor in management's review to determine readiness to begin work depends on the hazards and complexity of the work. The review process should verify that all support functions are implemented adequately to support the work.



Guiding Principle 8: Worker Involvement

This guiding principle is a major element for our Voluntary Protection Program (VPP). Employees throughout the company are involved in programs designed to incorporate health and safety into work planning and execution. Here are some examples of opportunities for employee involvement:

- Safety and health inspections
- Job hazard analysis
- Training development and delivery
- Procedure and policy development
- Safety council representation
- Bargaining unit assignment of labor safety representatives
- Work site walk-downs
- Safety logs

You can find associated information in MSC-POL-WP-4361, *MSA Expectations for Worker Involvement*, and MSC-PRO-WP-079, *Job Hazard Analysis*.



ISMS CORE FUNCTIONS AND GUIDING PRINCIPLES

Guiding Principle 9: Senior Management Involvement

MSA senior management remains thoroughly involved in the ISMS process through the following mechanisms:

- Providing resources including budget and funding for implementation of safety program elements
- Attendance at Monday morning back-to-work meetings
- Attendance at Presidents' Zero Accident Council (PZAC)/Employee Zero Accident Council (EZAC) meetings
- Quarterly participation in safety and health inspections
- Participation in group or other safety recognition celebrations
- Participation in Environmental Management System (EMS) management review meetings



What is 10 CFR 851?

10 CFR 851 is a law mandating a worker safety and health program.

On February 9, 2006, DOE published in the *Federal Register* Title 10, *Code of Federal Regulations* (CFR), Part 851, “Worker Safety and Health Program” (the Rule).

The rule establishes the framework for DOE’s non-radiological worker safety and health programs, just as the Occupational Safety and Health Administration (OSHA) does for private industry.

10 CFR 851 requires DOE contractors to provide workers with safe and healthful workplaces.

The rule establishes management’s responsibilities, workers’ rights, and required safety and health standards. It also establishes worker training on the hazards of their jobs and how to control those hazards.



The Workers' Bill of Rights

Every employee performing work on the Hanford Site has the following guaranteed rights, without fear of reprisal:

1. The **RIGHT TO HAZARD INFORMATION** associated with work tasks, provided in a timely manner.
2. The **RIGHT TO CONTRIBUTE** to job hazard analysis, employee job task analysis, accident investigations, pre-job planning, worksite inspections, assessments, safety meetings, safety committee activities, special task teams, policy/procedure development, safety training, safety goals and objectives, etc.
3. The **RIGHT TO FILE A COMPLAINT** with the Employer or cognizant DOE Field Office to request a work place inspection or otherwise address a safety or health concern.
4. The **RIGHT TO REFUSE OR STOP WORK** until an identified safety and health hazard has been effectively corrected or controlled.
5. The **RIGHT TO PERSONAL PROTECTIVE EQUIPMENT** provided by the company as required by the hazards associated with the activity or work location.

The Workers' Bill of Rights (cont'd)

6. The RIGHT TO IDENTIFY error precursors and error-likely situations related to work tasks and conditions, PRACTICE error reduction techniques, and PARTICIPATE in activities designed to minimize human performance related events.
7. For all employees, and where applicable in accordance with the Collective Bargaining Unit Agreement:
 - The RIGHT TO ACTIVELY PARTICIPATE in Voluntary Protection Program initiatives
 - The RIGHT TO BE CONSIDERED for participation in safety committee activities
8. The RIGHT TO PERSONAL EXPOSURE MONITORING for toxic materials and harmful physical agents and access to the records of acquired monitoring, bioassay, and exposure data.
9. The RIGHT TO BE INFORMED about results of accident investigations and workplace inspections.
10. The RIGHT TO ACCESS personal safety and health records.

Master Safety Rules

All employees shall comply with the following:

- Maintain the work environment and equipment in a clean and orderly condition
- Correct or report unsafe conditions or practices
- Inspect all tools, ladders, and equipment for defects before each use
- Know the hazards of the job and protective controls required before starting work
- Comply with established safety procedures and practices
- Use prescribed protective clothing and equipment
- Avoid distracting others; do not indulge in horseplay
- Lift correctly—bend knees, keep back straight, and get help when needed
- Report every injury; *get first aid immediately*
- Know the emergency procedures and respond promptly to all warning signals
- Observe all warning signs and do not enter barricaded areas without proper authorization
- Keep emergency equipment and exits clear at all times



Reporting Injuries and Illnesses

All employees have the following responsibilities with respect to injuries and illnesses:

- Attend to the injured. If the injury is not self-treatable, the employee must be taken to HPMC Occupational Medical Services (HPMC) during business hours, or the Hanford Fire Department or Kadlec after hours. The supervisor must accompany the injured worker who is transported by government vehicle (when available). In an emergency, call 911
- If the employee was injured in a radiological area, consult with the Radiological Control organization
- In all events involving chemical exposure, the employee or the employee's manager must contact an industrial hygienist so any hazards can be appropriately characterized. Safety Data Sheets (SDS) are always of value and should be provided to medical responders
- Communicate the employee's job requirements and expectations to the medical provider when a work restriction is being considered. Medical restriction must be understood by all parties (i.e., medical provider, supervisor/manager and employee)
- If the injured employee is to be sent home for any reason, the safety & health representative and case management specialist must be notified
- All work-related injuries except self-treatable injuries require that the employee go to HPMC

for evaluation or to another medical facility if injured on backshift. Refer to MSC-PRO-WP-077, *Reporting, Investigating, and Managing Health, Safety and Property/Vehicle Events*, for self-treatable and backshift requirements

- Employees may not refuse to be evaluated; however, they may refuse treatment from HPMC and seek treatment elsewhere
- Employees should promptly notify the line organization manager of events or conditions that, if uncorrected, can adversely affect safety, health, quality, safeguards and security, operations, or the environment
- Supervisors should initiate **Stop, Warn, Isolate, and Minimize (SWIM)** according to MSC-PRO-PA-058, *Investigation of Abnormal Events, Conditions, and Trends*

How to Summon Help

Use the emergency telephone numbers on the back cover of this toolbox. If no phone is available, pull a manual fire alarm for emergency help.



Stop Work

The **Hanford Site Stop Work Policy** is as follows:

Stop Work Responsibility—Every Hanford Site employee, regardless of employer, has the responsibility and authority to stop work, without fear of reprisal, when:

- Personnel are at risk
- Safe operations are affected
- An environmental release may occur
- The situation requires clarity of work instructions or use of additional controls



Stop Work Process

- Stop work immediately (or at the first opportunity to stop safely)
- Place work/activity in safe condition
- Notify supervisor and resolve at the lowest level
- Management communicates to affected work groups
- Use MSANS for communications beyond the local work group
- Document corrective or compensatory measures using any of the following methods:
 - Work record as required by MSC-PRO-WP-12115
 - Safety logbook
 - Corrective action management (Issues Identification Form)
- Promptly resolve issue(s)

- If stop work is not mutually resolved, notify senior management, safety representative, and union safety representative for resolution
- Provide feedback (i.e., originator and affected work groups)

Notify DOE Facility Representative if the Stop Work involves any of the following criteria:

- Conditions exist that pose an imminent danger to the health and safety of workers or the public
- Conditions exist, that if allowed to continue, could adversely affect the safe operation of, or could cause serious damage to, the facility
- Conditions exist, that if allowed to continue, could result in the release from the facility to the environment of radiological or chemical effluents that exceed applicable regulatory requirements or approvals

At Hanford, our Stop Work procedure has a graded approach and does not recognize terms such as “Step Back” or “Pause.” If an employee feels uncomfortable invoking a Stop Work, they can immediately contact any of the following and can stop the work:

- Manager
- Health and safety professional
- Union safety representative or Union steward

DOE-0343, *Stop Work*, is approved and implemented for all Hanford Site contractors.

Employee Concerns Hotline

Voicing safety, health, and environmental concerns is not only your **right**, it is your **responsibility**! You can submit a safety concern in many ways:

- Discuss it with your manager or supervisor
- If a safety concern, enter the item in the safety log
- Report safety concerns or issues to any of the following:
 - Safety/health professional
 - Employee Zero Accident Council members
 - Union steward
 - HAMTC safety representative
 - HGU safety representative
 - Human Resources
- Contact MSA Employee Concerns Program in person, by phone, in writing, by email (**MSA Employee Concerns**), via our website, or through the secure hotline at 373-CARE (373-2273)
- Contact the DOE-RL Operations Office of Special Concerns hotline: 376-1934



MSA Radiological Control

The MSA Radiological Control (RadCon) manual defines the responsibilities of all employees, and provides the basis for consistent and uniform implementation of radiological control requirements, including the following worker responsibilities:

- Obey all posted, written, and oral RadCon instructions and procedures, including Radiological Work Permits (RWP)
- Do not loiter, smoke, eat, drink, or use tobacco products in any posted radiological area
- **When entering radiological areas**, stay alert, take only what you need, and report any wounds, sores, or rashes to RadCon personnel immediately
- **When exiting radiological areas**; promptly remove PPE, frisk or be frisked after exiting posted Contamination, High Contamination, or Airborne Radioactivity Areas, as well as associated Radiological Buffer Areas, and **notify RadCon personnel when any contamination is found**
- **NOTIFY** RadCon personnel of off-site occupational radiation exposures so that worker dosimetry records can be updated
- **NOTIFY** RadCon personnel prior to any use of medical radionuclides



MSA Radiological Control (cont'd)

- **BE SURE TO** wear personnel monitoring devices where required by RWPs, signs, procedures, or by RadCon personnel
- **BE SURE TO** immediately report the loss, damage, or unexpected exposure of personnel monitoring devices or off-scale readings of self-reading dosimeters to the RadCon organization

ALARA Program

The MSA ALARA Program policy is designed to achieve two broad objectives:

- Control employee and public radiation exposures to As Low As Reasonably Achievable (ALARA) below regulatory limits
- Maintain releases of radioactivity to the environment ALARA

An effective ALARA program includes consideration, planning, and implementation of both engineered and administrative controls to balance the risks of occupational radiation exposure against the benefits of the activity.

MSA's administrative control limit for personnel qualified as radiological workers is 500 mrem annually. All employees are required to consider ALARA when planning radiological work activities to ensure that doses are maintained ALARA.



Hazard Communication

Employees have the “right to know” about the potential health and physical hazards that may be caused by chemicals they use or store at work.

MSA expects all employees to:

- Follow company procedures that protect workers from exposure to hazardous chemicals
- Use good work practices that minimize potential exposures
- Understand and follow the Facility Specific Hazard communication written program, that includes but is not limited to the following:
 - A list of hazardous chemicals, and carcinogens, in their work areas
 - Safe work practices
 - Types and availability of PPE
 - Personnel responsible for implementing the HAZCOM procedures in their work area/facility
- Attend the required initial training prior to the potential for exposure to hazards from the chemical products present in their work place. Also, complete additional training when new hazards are introduced into the work place
- Understand the physical and health hazards of the hazardous chemicals present in the facilities/project listed in the product SDS and the Chemical Use Attachments (CUA) that are part of the job hazard analysis documentation

Hazard Communication (cont'd)

- Recognize and understand the Globally Harmonized System (GHS) labeling elements appearing on manufacturer's containers and on secondary containers prepared on site

Hanford Hazard Label		
Product Name:	WELD-ON 750 HOTWELD LOW VOC CEMENT FOR PVC PLASTIC PIPE	
Manufacturer:	IPS	
GHS-OSHA:	070299	
SIGNAL WORD:	DANGER	
	PICTOGRAMS	HAZARD STATEMENTS:
HEALTH		Causes serious skin irritation. May cause Respiratory irritation. May cause Drowsiness or Dizziness
PHYSICAL		Highly Flammable liquid and vapor.
<small>OSHA 309 Ship 373-6882 Revision No. 20150324T</small>		

Refer to MSC-PRO-WP-13299, Hazard Communication and MSC-PRO-WP-10468, Chemical Management Process



Explosion bomb



Flame



Flame over circle



Gas cylinder



Corrosion



Skull and crossbones



Exclamation mark



Danger to health



Environment

Fitness for Duty: Are you fit for work?

Being responsible for your own safety can be summed up in one word: YOU. You are the only one who ultimately knows whether you are fit for work. Whether you are driving a forklift or a car—or are using the grill at a family barbecue—if you can't function properly, then you lack competence commensurate with responsibility and are a threat to your own safety and the safety of others.

If you doubt your fitness for duty, put yourself and your coworkers out of harm's way, stop what you are doing, and alert your supervisor immediately.

If a fellow employee's fitness for duty is in question, use your Stop Work authority. Discuss health or fitness problems and the following situations with your supervisor or manager:

- Injuries or illnesses on or off the job
- Work restrictions
- Medications, especially new ones
- Signs or symptoms of health problems (e.g., dizziness, weakness, shortness of breath, or loss of stamina)

Remember:

**If You Are Not Fit
Don't Work!**

Environmental Management System (EMS)

MSA's EMS integrates systematic environmental protection and compliance with ISMS.

DOE Order 436.1, *Departmental Sustainability*, requires that its contractors develop and implement an EMS. The integration of an EMS into MSC-PLN-WP-003, *Integrated Environment, Safety, and Health Management System Description*, provides a unified strategy to manage resources, to control and attenuate risks, and to establish and achieve



the organization's environmental, health, and safety goals. Under ISMS, the term "safety" also encompasses health and the environment; therefore, the guiding principles and core functions in ISMS are as applicable to the protection of the environment as they are to the protection of employee health and safety. MSA work activities are analyzed and reviewed for potential health and safety risks and environmental impacts before being performed. MSC-PLN-EI-42081, *MSA EMS Description*, incorporates DOE O 436.1. As such, MSA conforms with and is certified to the International Organization for Standardization's (ISO) 14001:2015, *Environmental Management Systems – Requirements with Guidance for Use*

(ISO 14001). The EMS strives for continuous improvement through application of the “Plan-Do-Check-Act” cycle.

The EMS components are as follows:

- Understanding organizational context
- Leadership commitment
- Establish environmental policy
- Planning: environmental aspects, compliance obligations and environmental objectives
- Resources, roles, responsibilities, and authorities
- Competence and awareness
- Communication (internal & external)
- Documented information (creation, update, and control)
- Operational control
- Emergency preparedness and response
- Monitoring, measurement, analysis, and evaluation of compliance
- Control of records
- Internal audit
- Management review
- Corrective action and continual improvement

The continual improvement cycle is a core tenet of the EMS and allows the system to adapt to changing operations within the organization.

What is Your Role?

You have an important role in the success of EMS; to fulfill your role, take the following actions:

- Understand how MSC-POL-EI-5054, *MSA Environmental Policy*, applies to you and your job
- Help protect the unique natural, biological, and cultural resources of the Hanford Site by complying with environmental and waste management procedures
- Report spills and/or leaks promptly
- Practice waste minimization and pollution prevention by reusing, recycling, or conserving resources
- Actively help protect the environment in other ways, such as disposing of litter properly or leading or participating in a recycling campaign



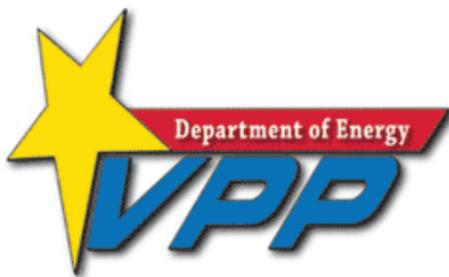
Voluntary Protection Program



The VPP is DOE's tool for promoting excellence in safety through management leadership and the direct involvement of workers. MSA maintains three separate VPP sites recognized with STAR status. Volpentest HAMMER Federal Training Center, Mission Support Services, and Safeguards and Security ensure all MSA workers are involved with safety.

STAR recognition means that MSA is maintaining exemplary safety programs that meet all management VPP criteria, including excellent safety systems and processes and employee involvement.

It also means that all employees are able to contribute directly to MSA safety and health programs.



Five Key Elements of VPP

The five key elements of VPP reflect and support implementation of ISMS guiding principles and core functions:

- **Management Leadership**
- **Employee Involvement**
- **Work-site Analysis**
- **Hazard Prevention and Control**
- **Safety and Health Training**

Management Leadership

Management leadership is key to excellence in VPP safety and health. Managers at all levels need to be involved in the VPP process, and show their commitment to worker safety and health by identifying worksite hazards and reducing the danger of injury and illness to employees. Through establishment of management tenets including, management commitment, safety and health policy, safety goals and objectives, and providing resources, safety is the first priority at MSA.

FIVE KEY ELEMENTS OF VPP Employee Involvement

The cornerstone of the VPP program is employee knowledge about the VPP process and involvement at all levels in the decisions and programs affecting health and safety.

VPP wants you to take ownership of your own safety and that of your coworkers. Remember, if a job just doesn't "feel right," implement a Stop Work.

Work Site Analysis

A challenge for VPP is achieving continuous improvement and actively involving employees in the analysis of the work-site hazards involved with employee work activities. A requirement for a VPP site is that employees are capable of discovering, on an ongoing basis, the potential hazards, risks, and problems associated with their work.



FIVE KEY ELEMENTS OF VPP Hazard Prevention and Control

Hazards are controlled through dedicated efforts of safety professionals, industrial hygienists, and safety engineers. Using a hierarchy of controls, identified hazards are eliminated, replaced with a less hazardous material, or are controlled with engineered controls that permanently mitigate the hazard. Administrative controls such as warning signs or procedures, are implemented prior to the last hazard control, which is PPE.

Establishing written procedures for appropriate emergency responses is also required for a VPP site. Emergency response drills must be practiced and participation documented at least annually.

Safety and Health Training and Education

Training and education of employees is the thread that links VPP and ISMS. All training required by OSHA regulations and standards must be provided in accordance with relevant standards, such as those for LOTO and hazard communication.



Employee Zero Accident Councils (EZAC)

MSA's EZACs help promote a safe and healthful work environment. They achieve exemplary safety performance in a cooperative effort by using the elements of VPP.

EZACs operate at the project or facility level and provide organizational representation and participation in the health and safety program. The Presidents' Zero Accident Council (PZAC) functions to provide for project, functional area, and service provider representation and participation in the health and safety program.

EZACs share or distribute the information presented at the monthly PZAC meeting to the facility/project work force. They also participate in developing the project/facility annual safety improvement plan (SIP), reviewing and approving project-/facility-specific safety awards, and coordinating recognition activities. They also maintain a log of safety suggestions and concerns. More information on PZAC and EZAC is at MSC-PRO-WP-9982, *Presidents and Employee Zero Accident Councils*.



If you have a safety concern, please contact your supervisor or your local EZAC representative.

MSA Target Zero

Target Zero is the goal that fosters a culture based on individual commitment to eliminating injuries, illnesses, environmental impacts, and errors or omissions.

MSA supports initiatives that achieve the following:

- Target:
 - Behavior
 - Responsibility/ownership
 - Continued improvement
- Zero in on preventing:
 - Environmental impacts
 - Injuries
 - Illnesses
 - Errors or omissions

MSA Do Work Safely

Remember what you work for and what you may lose due to unsafe acts. YOU are ultimately responsible for your own safety, and you are responsible to:

- Speak up when anyone's safety is jeopardized
- Make sure your actions do not have unsafe consequences
- When you don't understand something, ask
- Work defensively and be conscientious of the safety of others

How Can You Get Involved with MSA Safety?

Get involved with MSA safety by doing any or all of the following:

- Volunteer to join your EZAC
- Serve as a leader of your EZAC
- Start your next staff meeting with a safety topic or message
- Recognize coworkers for safe performance or for identifying potential safety hazards
- Participate in a Health and Safety inspection.
- Participate in the Performance Incentive Program for safety
- Maintain an ergonomic workstation
- Read and contribute to OPEXShare
- Celebrate success by applying for a safety or environmental award
- Watch out for error-likely situations
- Read all safety communications
- Visit the ISMS, VPP, and EMS websites
- Maintain a clean and safe work environment
- Be involved in injury/illness investigations
- Conscientiously work toward zero accidents and zero errors
- Actively care for your safety and the safety of others

Acronyms

ALARA	As Low as Reasonably Achievable
CCR	Competence Commensurate with Responsibility
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
EJTA	Employee Job Task Analysis
EMS	Environmental Management System
ES&H	Environmental, Safety, & Health
EWP	Enhanced Work Planning
EZAC	Employee Zero Accident Council
GHA	General Hazards Analysis
HAMTC	Hanford Atomic Metal Trades Council
HGU	Hanford Guard Union
HPMC	Occupational Medical Services
ISMS	Integrated Safety Management System
ITEM	Integrated Training Electronic Matrix
LOTO	Lockout/Tagout
MSA	Mission Support Alliance
OSHA	Occupational Safety and Health Administration
PIP	Performance Incentives Program
PPE	Personal Protective Equipment
PZAC	President's Zero Accident Council
RadCon	Radiological Control
SDS	Safety Data Sheet
VPP	Voluntary Protection Program

My Safety Information

My important medical information:

My supervisor/phone:

My manager/phone:

My Employee Zero Accident Council rep/phone:

My assigned safety professional/ phone:

The building administrator for my staging area is:

Building administrator phone:

My staging area is located:

Location of the nearest CPR/First Aid employee:

Location of the nearest AED:

Location of the exit closest to my work area:

Location of the nearest fire alarm:

Location of the nearest fire extinguisher:

Hanford Site Emergency Signals

FIRE ALARMS

The fire alarm can be a:

- gong
- chime
- electronic tone



It notifies you to exit the building calmly, but quickly, and proceed to the staging area. Take personal belongings such as coats and purses only if you won't be delayed in exiting. Some facilities have a unique fire alarm sound. Make sure you are familiar with the sound of the alarm in your building.

What to do in a site emergency:

The initial planned action for Hanford Site emergencies is to take cover in the nearest building. Employees should know where to go during a take cover before the sirens even sound – especially those who work in multiple locations around the site.

Discuss in safety meetings or pre-job briefings where to go and have a plan.



Important Emergency Contact Information	
Emergency – Land Line	911
Emergency – Cell Phone	(509) 373-0911
Hanford "Hotline" Information on Work Delays/Cancellations & Emergencies	(509) 376-9999 OR 1-855-629-7595
Hanford Website	www.hanford.gov
Recording of Hanford Site Emergency Signals	(509) 373-2345 04/2016

Hanford Site Emergency Signals	
 <p>Wavering Siren TAKE COVER: Go inside the nearest building; do not take cover in vehicles.</p>	<p>Steady Siren EVACUATION: Evacuate to primary staging area or as directed.</p>
<p>200 West Area: 283W Water Treatment Facility CHLORINE ALARM: Move away from the 283W facility and go inside the nearest building. High-pitched Rapid Tone & Rotating Beacon Light Know your facility-specific alarms or signals and proper responses.</p>	