Worksite Handbook

September 2014
Leadership Development
Responsibility and Accountability
Management Systems Coordination
Fatality Prevention / Risk Management
Training and Competence
Emergency Management
Culture Enhancement
Collaboration and Communication
Reinforcement and Recognition
Resources and Planning
Change Management
Work Procedures and Permits
Occupational Health
Incident Reporting and Investigation
Behavior Optimization
Safety and Health Management Assurance
Assurance
Documentation and Information Management
Engineering and Construction
Construction Management and Purchasing
Leadership Development

Leadership development is the process of identifying and developing employees in leadership positions or with leadership potential. These are individuals who can: Influence safety and health performance improvement; positively and knowingly affect safety culture; and help the organization achieve the goal of zero fatalities and a continual reduction in injuries -- the 0:50:5 goal.

The CORESafety Safety and Health Management System (SHMS) includes seven leadership expectations:

- Ensure all leaders understand the importance of their personal leadership, their responsibility to demonstrate their leadership and commitment to 0:50:5.
- Identify the desired leadership competencies specific to your company (to achieve 0:50:5) or adopt those recommended by CORESafety.
- Determine the level of management that will undergo leadership development: line supervisors, middle managers, senior managers, etc.
- Assess managers to determine how they compare with the defined leadership competencies.
- Either develop and deliver your own leadership process, or access an external development process from NMA or a consultant.
- Ensure all managers who undergo formal leadership development create a personal development plan.
- Link each development plan with the company’s performance management program to ensure that continuous improvement is sustained over time.

How it works

Leadership is critical for excellent safety and health performance. Effective leaders determine the importance given to safety and health management, help define and drive the culture, ensure adequate safety and health resources, set the example through personal behavior, communicate a strong personal safety and health vision for the company, and hold others accountable for their safety and health responsibilities.
CORESafety encourages management to set safety and health policy and expectations relative to safety and health performance and how it will be accomplished. They should collaborate and constantly communicate with all affected employees and other stakeholders and provide reinforcement and recognition for progress made. Senior management must take the responsibility to ensure their company’s SHMS is well designed and effectively implemented. Companies should promote strong leadership and utilize a leadership development process to enhance their management team skill sets to yield optimal results.

Several factors should be considered when developing or selecting a leadership development program:

- Which specific competencies are needed to support the safety & health management system?
- How do the candidates get feedback on their current performance and on the specific competencies in which they have opportunities to improve?
- How is the program content delivered? Does it match the learning style of the participants? Adults learn differently from younger students.
- How long does the program last? A 2-3 day class is very unlikely to drive sustainable improvement. Exposing participants to new concepts over a longer period will improve learning.
- How does the operation’s ongoing performance management system support the leadership development program? Classes alone will not succeed; participants must be held accountable for using their new skills in their daily routine.

Flow of the Process

Identifying Potential Leaders
Determining who is a safety and health leader will affect your approach to leadership development. Think carefully about leaders in your organization. Is it top line managers? What about staff positions? Is it anyone who can control their own behavior and influence others? If the latter is true, there are a number of strong leaders among the entire workforce, including non-salaried positions. Determining who is a safety and health leader for the purpose of achieving the 0:50:5 goals will affect your approach to leadership development.
There are a number of competencies that are strongly associated with safety performance. These include, but are not limited to:

- **Accountability**: Communicates clear safety roles and responsibilities, ensures people receive frequent, fair appraisal of efforts and results; holds people accountable for their responsibilities; applies positive and negative consequences as appropriate.
- **Vision**: Has and communicates a vision; describes compelling and vivid picture of what desired safety state could/needs to be.
- **Credibility**: Is perceived as honest and reliable, treats others with fairness, dignity and respect; follows through on commitments, even in difficult times.
- **Action-oriented**: Is performance oriented, proactive in reducing hazards and risks; persistent in solving safety problems.
- **Communication**: Maintains good interpersonal listening and speaking skills; actively keeps all people informed about relevant safety information and the big picture, as well as details.
- **Collaboration**: Promotes cooperation and collaboration to solve safety problems. Gets people involved.
- **Feedback & recognition**: Gives positive feedback about good safety performance, publicly recognizing safety contributions of others and celebrates safety success.

**Leadership Development**

Leadership development is a process that begins with leaders understanding their strengths and weaknesses. This understanding helps leaders focus on areas of potential improvement. To effectively influence safety and health performance improvement, leaders should:

- Hold themselves and their subordinates accountable
- Be action-oriented
- Be collaborative
- Be an effective communicator
- Have integrity
- Provide effective performance feedback
- Be systems-focused
- Have a personal vision and passion for safety excellence
Linking Leadership Development to Other Processes

Some people are natural leaders. The majority of leaders, however, can benefit from additional development of their leadership skills. Development does not end at the conclusion of leadership training. It should link to the company’s performance management and succession planning processes. Leaders, who are held accountable, by themselves and by the company, will have far greater success in making change permanent and positive. They also will have greater success in enhancing the organization’s culture and ensuring adequate resources to achieve the 0:50:5 goals.

It is not necessary for every leader in every mining company to exhibit all of these competencies. Big changes in safety culture and performance can be realized with relatively small changes in leadership behavior. However, the more integrated these competencies and their resulting behaviors are for as many individual leaders as possible, the more positive change can be expected.
Workbook Materials For Module 1

Leadership Development

Responsible Person – A person authorized and empowered by management should be assigned to head the establishment of the leadership development program and serve as a facilitator for the group in identifying and developing employees in leadership positions.

Name: _________________________________________
Work Area: _________________________________________
Responsibility: _________________________________________

Work Areas – It may be desirable but not a priority to select leaders for specific areas or work groups. Leaders can and should come from any area if the employee matches the competency requirements of the program. Work area consideration may be preferable should there be a high hazard/risk potential and the elimination/mitigation plan requires progressive leadership.

Work Area 1 _________________________________________
Work Area 2 _________________________________________
Work Area 3 _________________________________________
Work Area 4 _________________________________________
Work Area 5 _________________________________________

Identifying Potential Leaders – To determine who among their peers is a safety and health leader, an individual must be evaluated against organizational specified competencies that are strongly associated with safety performance and in line with the seven leadership expectancies. Competencies should include but not limited to

- Accountability: Communicates clear safety roles and responsibilities, ensures people receive frequent, fair appraisal of efforts and results; holds people accountable for their responsibilities; applies positive/negative consequences as appropriate.
• Vision: Has and communicates a vision; describes a compelling and vivid picture of what desired safety state could/needs to be.
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• Action-oriented: Is performance oriented, proactive in reducing hazards and risks; persistent in solving safety problems.
• Communication: Maintains good interpersonal listening and speaking skills; actively keeps all people informed about relevant safety information and the big picture, as well as details.
• Collaboration: Promotes cooperation and collaboration to solve safety problems. Gets people involved.
• Feedback & recognition: Gives positive feedback about good safety performance, publicly recognizing safety contributions of others and celebrates safety success.
Leadership Evaluation Worksheet

CANDIDATE: _________________________________________________________

WORK AREA: _________________________________________________________

JOB TITLE/RESPONSIBILITY: ___________________________________________

WORKFORCE/SUPERVISORY: ___________________________________________

MANAGEMENT LEVEL: _________________________________________________

YEARS MANAGEMENT EXPERIENCE: _____________________________________

DIRECT REPORTS: _____________________________________________________

COMPETENCY RANKNG: _______________________________________________

(Average of categories from following table)

LEADERSHIP COMPETENCY RANKING

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<thead>
<tr>
<th>Competency</th>
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<th>1 - Lowest</th>
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REMARKS: ________________________________________________________________

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Leadership Development
Leadership Development and Training

All leaders can benefit from additional development of their leadership skills. Development does not end at the conclusion of leadership training. It should link to the company’s competency standards, performance management and succession planning processes.

For each competency standard a training development plan should be created with company expectations in mind. This plan shall be used for dedicated training to those who rank lower in their classification. The plan should also be used as an ongoing skills refresher program.

For each person chosen as a safety and health leader, using the leadership competency ranking, set a training program with timetable concentrating on the lowest ranked competencies.

Leadership Training Schedule

CANDIDATE: _________________________________________________________________
WORK AREA: _______________________________________________________________
JOB TITLE/RESPONSIBILITY: ___________________________________________________
WORKFORCE/SUPERVISORY: ___________________________________________________
MANAGEMENT LEVEL: _________________________________________________________

Training Schedule

<table>
<thead>
<tr>
<th>Competency</th>
<th>Ranking</th>
<th>Training Module</th>
<th>Date Scheduled</th>
<th>Person Responsible</th>
<th>Date Completed</th>
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<td>Accountability</td>
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<td>Vision</td>
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Leadership Development
Responsibility and Accountability

Employees are responsible for their own safety and for looking out for the safety of their co-workers. Consistent personal accountability should be instilled. Structured accountability also ensures personnel live up to their responsibilities through positive and negative consequences. Assigned and understood responsibilities along with appropriate accountability are common factors to the various components of CORESafety and to your operations safety and health management system. A common theme should be to “Lead by Example.” Leaders and managers at all levels are responsible for engaging and leading the workforce to achieve the 0:50:5 goal.

Responsibility and Accountability is the Process of:

- Setting appropriate safety and health goals
- Assuring all employees understand their safety and health management roles and responsibilities
- Providing sufficient resources to fulfill one’s responsibilities
- Employing appropriate tools to measure and review for continuous improvement
- Applying positive and negative consequences relative to performance against responsibilities

How it works

An accountability system ensures all employees understand their specific roles and act consistently on those responsibilities. A successful accountability system:

- Emphasizes leadership by example
- Includes all employees
- Clearly identifies the work to be conducted
- Establishes responsibility goals at all levels of the organization that are:
  1. Appropriate
  2. Attainable
  3. Proactive
4. Directly aligned with achieving the 0:50:5 goal
5. Measurable to evaluate compliance and completion
6. Renewable at the end of an appropriate interval

The safety and health management system should contain performance measures that allow timely and meaningful evaluation of progress toward successful completion of established goals. It should also include positive reinforcement and negative consequences in the evaluation process. This begins at pre-employment and evolves with the individual and the needs of the organization.

**Flow of the Process**

**Leadership at all levels is accountable for achieving 0:50:5 goals**

Managers must embrace the CORESafety SHMS in efforts to reach the 0:50:5 benchmarks. The responsibility and accountability process should include:

- Identify personal and group safety and health management responsibilities for the entire workforce and ensure each person is aware of and acknowledges their role and responsibilities.
- Identify positive reinforcements and negative consequences specific to each person’s safety and health responsibilities.
- Provide time, knowledge and other resources necessary for personnel to successfully complete their safety and health responsibilities.
- Periodically assess performance against target for each person and provide feedback.
- Conduct a final performance review and apply consequences, as appropriate, at the end of the assessment period, e.g. shift, week, month, quarter, and/or year.
Workbook Materials For Module 2

Leadership Commitment

The operation’s highest ranking officer must commit his and the organization’s dedication to the CORESafety program and to its success. A corporate letter or mission statement should be drafted, confirming with signature support to the CORESafety Pledge. This letter should be posted conspicuously at company facilities for all employees to witness and should be included as page one of the master CORESafety document.

Name of Corporate Officer: ____________________________
Position in Organization: ____________________________
Letter Completed: Yes [ ] No [ ] Date of Letter: ________________
Designated Posting Areas: ______________________________________
________________________________________________________________
________________________________________________________________

CORESafety SHMS Plans

All plans, policies and procedures to be included for CORESafety program compliance should be identified and adopted into the safety and health management system. For reference, documents should be identified by title, date, document number and subject area designation. i.e. ventilation, tools, confined space, roof control, etc.

All applicable plans should be included in the master CORESafety document.

<table>
<thead>
<tr>
<th>Plan/Policy</th>
<th>Subject</th>
<th>Plan No</th>
<th>Date (Latest Revision)</th>
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CORESafety SHMS Pan (cont.)

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<th>Plan No</th>
<th>Date (Latest Revision)</th>
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**Identification of Responsible Parties**

Beginning with the development of the overall SHMS and each of its plans and policies, identify each person responsible and accountable for compliance with the policy and/or regulation. Responsibility designation should begin with the highest level of management and continuing down to the workforce level. Assignments may be by position or name. This identification process could be performed by work area rather than encompassing an entire worksite.

**Identification of Responsible Parties**

<table>
<thead>
<tr>
<th>Work Area</th>
<th>Plan/Policy</th>
<th>Person Responsible</th>
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<td>Example:</td>
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<td>Production Section</td>
<td>Ventilation</td>
<td>Mine Manager</td>
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<td>Gen Mine Foreman</td>
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<td>Shift Foreman</td>
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Responsibility and Accountability
Responsibilities of Designated Persons
The responsibilities of each person accountable for developing, communicating, implementing and maintaining the SHMS must be determined for each plan/policy area. Identified responsibilities should be specific and measurable with a timeframe set for completion and compliance. When planning individual responsibilities for each of the categories below, one should begin with the most senior level position involved as he/she associates to the plan or policy. Each plan should then be evaluated as to its status in regards to development, communicated, implementation, and compliance.

CORESafety SHMS Plans

Plan/Policy:

________________________________________________________________________

Work Area:

________________________________________________________________________

Plan Summary:

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### Plan Status:

#### Development:

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<th>Person</th>
<th>Position</th>
<th>Responsibility</th>
<th>Scheduled Completion</th>
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#### Tools/Resources Needed:

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#### Individual Training/Development Required:

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<th>Person</th>
<th>Position</th>
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Responsibility and Accountability
### Plan Status: (cont.)

**Communications:**

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<thead>
<tr>
<th>Receiving Person/Group</th>
<th>Person Responsible to Communicate</th>
<th>Scheduled Date</th>
<th>Completed Date</th>
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A communication of plans should be considered as training with proper recording documents filed and retained for everyone who receives the information.

**Implementation:**

<table>
<thead>
<tr>
<th>Person</th>
<th>Responsibility</th>
<th>Compliance Exception/Goal</th>
<th>Scheduled Date</th>
<th>Timeframe to Meet Goal</th>
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PLAN COMPLIANCE:
Once implemented the expectations must be monitored for compliance. While constant and continual compliance is expected, periodic review should be scheduled to measure results against the standard

Plan/Policy:

________________________________________________________________________
________________________________________________________________________

Work Area:

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Plan Summary:

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Plan Compliance: (cont.)

Expectation/Goal:

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Date Implemented: __________ Goal Timeframe: ______________________

Assessment Period: __________ Performance Review Date: __________

Findings Of Performance Review:

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Plan Compliance: (cont.)

Results As Measured Against Compliance Expectation:

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Next Step Planning/Modifications Required:

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Next Performance Review: _____________________________________________

Responsibility and Accountability
Positive and Negative Consequences

When reviewed, the performance against target must be measured and evaluated for each person’s responsibility and their role in meeting the goal expectation of the SHMS plan. A positive acknowledgement or reward program should be considered for those who have committed to and achieved the program’s expectations. At the same time, corrective actions must be weighed for those who adversely affect the results leading to less than desired results.

Individual Action Plan

Name: ________________________________________________________________

Plan/Policy: __________________________________________________________

Work Area: __________________________________________________________

Performance Review Date: _____________________________________________

Findings of Performance Review:
________________________________________________________________________
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Responsibility and Accountability
Individual Action Plan (cont.)

Negative Performance:

(Review of personnel files for training and disciplinary status)

Additional Training Required: ____________________________________________
_______________________________________________________________________
_______________________________________________________________________

Training Scheduled: ____________________________________________
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Corrective Action Required: ____________________________________________
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Supervisor Responsible: ____________________________________________
_______________________________________________________________________
_______________________________________________________________________

Date Completed: ____________________________________________

Responsibility and Accountability
Management Systems Coordination

A Safety and Health Management System (SHMS) is the repeatable, integrated processes, procedures and actions that result from the system plan. It should be operations wide and must be coordinated and include the assignment of responsible persons to help steer and actively manage the system on its path forward. As the SHMS plan is developed and implemented, incorporation of CORESafety into other operational systems should be considered in paralleling efforts to achieve the 0:50:5 goals across all departments.

Management System Coordination is the process of:

- Assigning responsibility for development and management of the CORESafety safety and health management system.
- Developing a SHMS plan incorporating CORESafety values
- Integrating CORESafety into other company systems such as mine planning, operations, maintenance, contract management, human resources, information technology and others.
- Establishing a process to review and continually improve performance that affects the goals and objectives of CORESafety and the SHMS.
- Establishing a process to review periodically and ensure the SHMS remains relevant and appropriate as the organization undergoes change

How it works

Because the CORESafety SHMS will affect many aspects and all groups within the organization, it must be employed operations wide by integrating its principals into all company systems, e.g. planning, operations, maintenance, contract management, human resources, performance management, procurement, etc.
The CORESafety management system coordination will require a senior manager to be designated with responsibility for ensuring a safety and health management system is developed and implemented within all affected departments, levels, facilities and business units within the organization.

The program must be periodically reviewed to measure success in meeting the 0:50:5 goals and to ensure continued performance improvement. These evaluations must include assurance that all programs remain applicable and pertain to the operation’s goals as they move forward.

**Flow of the Process**

**Designate Senior Leadership**
At least one senior manager shall be assigned with formal responsibility for the development, implementation, operation, and maintenance of the CORESafety SHMS. This includes and should parallel the expectations of Module 2, Responsibility and Accountability.

**Develop and Communicate a CORESafety SHMS Policy**
A company/operation specific policy shall be developed detailing the commitment to and implementation of the CORESafety SHMS. This policy should serve as a descriptive outline of how the 20 Modules will be incorporated into the SHMS. The Policy must be communicated to all employees, contractors, and other stakeholders.

**Develop a Written Safety and Health Management System Plan**
A comprehensive plan that identifies the processes and responsibilities for developing, implementing, and verifying the CORESafety SHMS will be developed and include a schedule for full implementation. The plan should include guidelines for roll out into all systems of the operation.
Ensure the SHMS Expectations Integrate with Responsibility and Accountability

Module 2 outlines procedures to help assure responsibility is assigned and persons are accountable for each expectation of the SHMS plan. Senior Leadership shall assure that each expectation is covered and is assigned ownership.

Ensure the SHMS Expectations Integrate with Other Company Systems & Departments

The S&H policy expectations should be consistent and adhered to by all departments within the organization. S&H standards should be considered as mandatory to all individuals working at the operation.

Ensure Proper Documentation

All parts of the SHMS shall be properly documented to assist responsible persons with the development, implementation, and monitoring of the program. Thorough evaluation and reporting documents should be developed and retained to allow for performance review and continued improvements.

Define and Budget the Financial and Time Resources

The development and maintenance costs and resource hours required shall be budgeted and tracked. As should any material expenditures needed to be included for fulfilling the SHMS.
Workbook Materials For Module 3

**Senior Management Leader** – A person authorized and empowered by executive management should be assigned to head the development, implementation and maintenance of the SHMS program.

- Name: ________________________________
- Work Area: ________________________________
- Responsibility: ________________________________

**Safety and Health Management System Policy** – Establish a Safety and Health Policy that clearly states the operations mission, commitment, goals, and responsibilities to CORESafety and to adopting its principals into the Safety and Health Management System.

**CORESafety Safety and Health Management Policy**

- Policy Reference: ________________________________
- Responsible Persons:
  - Leader: ________________________________
  - Committee: ________________________________
  - ________________________________
  - ________________________________
  - ________________________________

**Executive Management Approval:**

- Name: ________________________________
- Title: ________________________________

- Draft Review Date: ________________________________
- Target Release Date: ________________________________

**Policy Highlights to Include:**

  ________________________________  ________________________________
  ________________________________  ________________________________
  ________________________________  ________________________________
Safety and Health System Development Plan

Prepare a comprehensive plan that identifies the processes and responsibilities for developing, implementing, and verifying the CORESafety SHMS.

CORESafety SHMS Development

Policy Reference: ________________________________

Responsible Persons:

Leader: _______________________________________

Committee:

- ___________________________________________
- ___________________________________________
- ___________________________________________
- ___________________________________________

Timeline:

Initial Planning Meeting: _______________________

Follow Up Schedule: ___________________________

Final Draft Review Date: _______________________

Target Release Date: ___________________________

Departments and Agencies to Include:

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CORESafety SMHS Plan Outline:

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Management Systems Coordination
## CORESafety SHMS Plan Documents:

<table>
<thead>
<tr>
<th>Plan Description</th>
<th>Plan No.</th>
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## Plans Incorporated into the SHMS:

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CORESafety SHMS Implementation:

Responsible Persons:
Leader: ____________________________________________________
Committee: ____________________   __________________________
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Timeline:
Plan Release Date: __________________________________________
Communication Dates: __________________________________________
Training Dates: __________________________________________
Roll Out Complete By: _________________________________________

Departments and Agencies to Include:

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Management Systems Coordination
CORESafety SHMS Implementation (cont.):

**Training:**

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**CORESafety SHMS Rollout Dates:**

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CORESafety SHMS ASSESSMENT:

Responsible Persons:
Leader: ______________________________________________________
Committee: ____________________   __________________________
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CORESafety SHMS Audit Schedule:

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Management Systems Coordination
The persistence of high severity events suggests a new approach—rooted in safety management systems—is needed in order to have different mine safety outcomes. The backbone of this effort is the risk management process, which identifies risks associated with specific mining activities and ways to proactively mitigate those risks to prevent injuries and fatalities. The risk management process has been used by other industries and mining in other countries to successfully improve safety and health performance.

Risk management is the process of:

- Identifying safety and health hazards
- Evaluating the associated risk and consequences
- Developing controls to eliminate or minimize negative outcomes to an acceptable level
- The goal: Eliminate the risk or reduce it to the lowest practical level

The CORESafety Safety and Health Management System (SHMS) is a systematic approach to risk management that calls for:

- Reviewing all safety and health hazards
- Assessing and prioritizing risk
- Applying controls systematically
- Verifying that controls remain effective over time

The term “risk” is often confused with hazard, so it is important to recognize they are not interchangeable. Hazard is defined as a source of potential harm, injury or detriment. Risk is defined as exposure to the consequences of uncertainty. It has two dimensions: the likelihood of something happening, and the consequences if it were to happen.
How it Works
Risk management starts with operation planning; it is conducted on an ongoing basis and is carried through to closure. Risk assessment can involve technical staff (engineers) managers and workers with appropriate knowledge and experience.

There are several steps to the risk assessment process. Each step is critical to the success of the effort, and management teams should assure adequate resources and time to give credibility to the outcomes. Risk management can be used at four levels: the entire operation, a specific process or installation, a task or set of job tasks, and the last level—personal risk assessment, e.g., SLAM, Take 5, etc.

Acceptable risk should be defined by management; however, risk-based decisions can and should be made by workers when they have the knowledge, training, and experience.

The risk assessment process:
- Sets clear direction to solve specific at-risk problems
- Focuses on priority concerns (hazards and risks)
- Gains commitment from a cross-section of the facility’s work force through their active participation in the process
- Decreases potential losses for operations
- Helps build teams to solve major problems and improve the safety culture
- Goes beyond simply complying with existing standards and regulations

Flow of the Process

Establish context & scope
The risk assessment design or scope is best defined prior to the exercise. Hazards to be discussed, decisions on risk assessment team membership, and time allotment for the activity are best addressed with a scoping document. This document provides an opportunity to break down the process into reviewable parts and define goals.
A fundamental element of risk management is the risk assessment team. For major hazards, e.g., new mine, new development in an existing mine, new equipment, new mine process, etc. that tend to be complex, a full team of people is justified. However, for the small operator, the risk management process must be scalable. When a team is formed, it must include an appropriate cross-section of knowledgeable persons familiar with the hazards to be investigated. The team must be capable of identifying all relevant hazards, unwanted events and possible controls.

The facilitator is responsible for following a quality risk assessment process designed to meet the risk assessment scope and is responsible for making sure the team and the process remain focused on a quality output. The facilitator can be internal or external to the company, but must be someone with the appropriate qualifications, knowledge and experience. It is also important to consider non-management/labor entities for team participation. Miners responsible for performing tasks that are part of the work processes under review can validate information and provide insight, perspective and ideas that are invaluable to a quality output. These team members are also helpful in communicating adherence to existing prevention controls and recovery measures and in embracing changes brought about by the application of new ideas.

**Understand the hazard**

The first step is to identify all relevant hazards or possible problems that could lead to a potential event. If the list is incomplete, the risk assessment will be inadequate. There are many tools to help compile the list, including input from workers and managers, injury records, worker’s compensation records, near miss reports, process flow diagrams, brainstorming and hazard identification. Risk assessment processes such as hazard and operability studies (HAZOP), fault tree analysis (FTA) and bow tie analysis (BTA) can also be effective.

The types of hazard that should be identified are best thought of as uncontrolled releases of energy that have the potential to cause significant harm. Energy that is not completely controlled leads to some level of risk, depending on the likelihood of release and the consequences should the energy be released. When the unwanted release occurs, it can cause serious injuries.
Identify the risk - Analyze & Evaluate risks

After a comprehensive list of hazards is identified and characterized, a broad-brush risk assessment tool is used to rank the potential unwanted events. Depending on the topic, the individual hazards should be broken down using a process mapping technique or by the geographic location within the operation. For each step in the work process or for each geographic location within the operation, a likelihood of occurrence and a consequence for each potential hazard are determined. Below is a generalized risk ranking matrix.

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<td>A Certain</td>
<td>Extreme</td>
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<tr>
<td>B Likely</td>
<td>Extreme</td>
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<tr>
<td>C Possible</td>
<td>Extreme</td>
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<tr>
<td>D Unlikely</td>
<td>Extreme</td>
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<tr>
<td>E Rare</td>
<td>High</td>
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Consider the controls

Additional risk assessment tools are used to help determine what prevention controls and recovery measures are currently being used. The same process that identifies existing prevention controls and recovery measures is used to identify new prevention controls and recovery measures. When a hazard is eliminated, the risks associated with the hazard are also eliminated. This should always be the first action of the risk assessment team – to investigate how to eliminate the hazard. However, this is usually difficult to do, since a hazard can owe its origin to many different factors. If it is not possible to eliminate the hazard, attempts must be made to mitigate the potential effects of the hazard.
Mitigation consists of actions to minimize the hazard, most often with engineering methods, or to use physical barriers capable of separating the hazard from the worker or the work process. Warning devices are often used to assess the performance of engineering controls, and physical barriers are used to prompt a change in administrative or work processes.

Controls that are largely focused on operational and work processes include procedures and personnel skills and training. Procedures can often rely on the personnel skills and training of the worker. Reliance on worker behavior increases the potential for human error and reduces the effectiveness of the risk reduction control when compared to mitigation efforts.

This consideration of controls is a crucial step, since it potentially produces a list of actions to be investigated that are capable of further risk reductions at a site. It is important for management to consider the merits of each new idea suggested by the risk assessment team. At the end of this step, a detailed list of all prevention controls and recovery measures for the hazard in question are documented so they can be monitored and audited on some regular basis.
Treat the risk
The important output of the risk assessment team is the list of existing and new controls. Assessing the quality of this output can only be accomplished when the effectiveness of these controls is understood. The team should be cautious of an over-reliance on warning devices that require manual readings, administrative procedures, and the personnel skills and training of the work force. In general, treatments should strive to go beyond the standards and regulations for mining.

Monitor and review
A re-assessment of the site’s hazards and an evaluation of the implemented risk mitigation program should be done on a regular basis by skilled and experienced personnel. This can be accomplished at three levels:

- A site assessing its own controls
- A site assessing its own controls using someone from the outside (2nd party)
- Site controls are assessed by an external entity (3rd party)

An audit and review should, at minimum, determine the status of the risk management plan and make recommendations for improving potential deficiencies in the plan. Tools, such as a risk checklist, are sometimes used to help with auditing and reviewing important controls at a mining operation. Once a risk mitigation program has been implemented, the change management procedure should be followed to ensure any new changes made to the operation don’t introduce new hazards, alter existing risk or negatively affect controls.

Summary
The risk management process is a comprehensive method to identify, rank, and mitigate employee and community exposure to risks associated with the mining process. It must be scalable to all sizes and stages of mining operations and to every level of sophistication in the safety continuum. This is an introduction to the process. Additional resources are available in the CORESafety resource section. Like any new tool, using risk management takes time and patience, but can be a game-changer in terms of the degree of control and the positive impact on a company’s safety culture and performance.
Workbook Materials For Module 4

Process Scope

Work Areas

A cross-sectional team of knowledgeable persons, cross sectioned from all departments should be assembled to identify the work areas that present hazards where significant injury or harm could result. A list of all areas should be developed to then be used to identify each hazard individually.

List each work area. i.e. production section, maintenance shop, warehouse, mine office, mobile equipment, preparation plan

a. ____________________________________________
b. ____________________________________________
c. ____________________________________________
d. ____________________________________________
e. ____________________________________________
f. ____________________________________________

Understand the Hazard

For each work area, identify all relevant hazards that could lead to a potential event. Associate the hazard with the job and persons involved. Hazard identification should include, but not be limited to; worker input, injury records, near miss reports, and agency regulations/guidelines. Current company policy and SHMS plans should also be considered.

Work Area:

List each HAZARD associated with the work area and job to be performed. Include a description and potential result if not addressed.

Hazard: ____________________________________________
________________________________________________
________________________________________________

Fatality Prevention/Risk Management
Work Area (cont.):

Hazard: ________________________________________________________________
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Fatality Prevention/Risk Management
Identify the Risk
Analyze & Evaluate Risks – Once a comprehensive list of hazards is identified and characterized by work area, a risk assessment evaluation should be performed to rank the potential unwanted events. Ranking should be done with consideration to the likelihood of occurrence and consequence. The following matrix may be considered as a ranking tool.

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<td>Extreme</td>
<td>Extreme</td>
<td>Extreme</td>
<td>High</td>
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<td>B Likely</td>
<td>Extreme</td>
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<td>Medium</td>
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<td>C Possible</td>
<td>Extreme</td>
<td>Extreme</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
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<tr>
<td>D Unlikely</td>
<td>Extreme</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>E Rare</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>Low</td>
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Work Area:
For each HAZARD associated with the work area, rank the degree of risk as to the likelihood of occurrence and severity consequences. (Once comfortable with the process, this task may be completed during the hazard identification process)

Hazard:  
____________________________________________________________________
____________________________________________________________________
Likelihood (A-E): ________ Consequence (1-5): __________________________

Hazard:  
____________________________________________________________________
____________________________________________________________________
Likelihood (A-E): ________ Consequence (1-5): __________________________

Hazard:  
____________________________________________________________________
____________________________________________________________________
Likelihood (A-E): ________ Consequence (1-5): __________________________
Prioritize and Treat the risk – Consider the Controls

Prioritize and categorize the hazards by their evaluated degree of risk.

- **Extreme:** 1A-D, 2A-C, 3A
- **High:** 1E, 2D, 3 B-C, 4 A-B, 5A
- **Medium:** 2E, 3 D-E, 4C, 5B
- **Low:** 4 D-E, 5 C-E

For each hazard, beginning with those of potentially extreme risk, analyze the hazard details and design/implement controls to eliminate or mitigate the potential effects of the hazard to an acceptable level. Take into account all existing (company policy, SJP, agency regulations) and new controls, but strive to go beyond existing standards and mandates. Once Extreme risk hazards have been completed, move to the next category, High potential, and so on.

**Work Area:** ________________________________________________________________
**Hazard:** ____________________________________________________________________
**Risk Category:** ______________________________________________________________
**Risk Description:** ____________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
**Controls to Eliminate/Mitigate:** _________________________________________________
____________________________________________________________________________
____________________________________________________________________________
**Controls to Eliminate/Mitigate:** _________________________________________________
____________________________________________________________________________
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Fatality Prevention/Risk Management
Monitor and Review

Establish a time period for the re-evaluation of each hazard/risk assessment plan. This audit should be;

- Regular and,
- Performed by skilled and experienced personnel.
  - Site assessing its own controls
  - Site assessing its own controls using someone from a 2nd party
  - Site controls are assessed by an external entity (3rd party)

Work Area: ____________________________________________________________

Hazard: ___________________________________________________________________

Risk Management Plan #: __________________________________________________

Scheduled Re-Evaluation:
________________________________________________________________________

Responsible Person/Group:
________________________________________________________________________

Audit/Assessment Checklist #:
________________________________________________________________________
Education (Knowledge) and training (knowing how to apply knowledge) are essential to an effective safety and health management system (SHMS). Workers who know: what is expected; understand the risks and hazards of their tasks; are well trained to eliminate or mitigate the risks; and, apply their knowledge and skills are far less likely to be injured or become ill from an occupational illness.

Training and competence validation is the process of:

- Determining required training
- Assessing training needs based on level, knowledge and skills required for each task.
- Ensuring workers know the hazards and risks of their assigned tasks
- Ensuring workers have been trained on how to do their jobs, taking all precautions to mitigate or eliminate the risks of the work performed
- Verifying worker competency through follow up observations and demonstrations.

How it works

Training Required: All tasks within a worker's job function should be reviewed giving priority to the hazards and risks associated and to the actions items required to mitigate or eliminate these risks. See Module 4. Safe Job Procedures and Hazard Training guidelines should be verified to be in place and complete to assure all hazards have been considered and the mitigating actions items are included.

Training Needs Assessment: The process shall include a training needs assessment to determine the level of knowledge and skill that will be required, how frequently training should be conducted and the initial and ongoing requirements to establish competency.

Quality of Instruction: Training that is based on adult learning methods (hands-on versus memorization) tend to be more effective. Regardless of the quality of the training materials, the quality of the learning is most significantly influenced by the quality of the instruction. As such, train the trainer development is very useful.
Verification: Being educated or undergoing training is not sufficient. What is more important is how well the worker is able to apply knowledge and skill – whether they are competent. Safety and health excellence requires more than just offering mandated or discretionary training: it requires verification that those trained are competent by demonstrating the acquired knowledge and skills.

Flow of the Process

Conduct Training Needs Assessments for All Workforce Tasks
Training programs and materials must include all hazards and risks associated with the job and the action items required to eliminate or mitigate to an acceptable level. When evaluating risk, global, corporate, and site identified significant risks should be considered. Energy lock out, working at heights, hot work, confined space, are identified risks that are included in many job functions. A more complete list to check against can be found in the Module 5, CORESafety resources page. These programs should include the minimum skill level required by the employee and the procedures required to be demonstrated to assure competency. The assessment process should include specifying the type of training to be performed. i.e. classroom, hands on field instruction, expectations, etc. The assessment should consider the amount and frequency of training, initial, ongoing, and periodic refresher.

Conduct Training Needs Assessments for All Site Based Health and Safety Requirements
Prior to performing any work on site, any new employee, visitor, contractor or vendor is required to receive training on the health and safety risks associated with their site assignment. An assessment of the hazards and risks for each site assignment is required and training programs and plans should be developed addressing the risks that a group may be exposed to.

Consider Mandated Regulatory (MSHA/OSHA) Training Requirements in OH&S Plan Training
Site OH&S Plan training programs should be combined with regulatory training requirements. Any common subjects can be integrated maximizing the emphasis of the requirement.
Develop a Competency Assurance Assessment for All Trainers
When assessing the training programs and required training for each task, trainer competency and verification must be considered. Establish a guideline to certify all trainers are adequately competent to deliver the needed training. A train the trainer program should be considered within the health and safety resources.

Develop a Competency Assurance Assessment for Trained Personnel
The OH&S training program shall include a verification process that certifies a person has been sufficiently trained and has the skill level to safely perform the tasks of his job responsibilities. The assessment process should have a definite timeline and include demonstrated procedures that are used to determine competency.

Develop Train the Trainer Programs
Consideration should be given to establish train the trainer programs that use subject matter experts, training persons to be competent and understand the hazards, risks, and skills required for the workers to safely perform their job.

Integrate Training & Competence Expectations into all Modules with Training Requirements
Modules 3, 4, 7, 8, 9, 10, 12 and 19 include training consideration. The protocols of this Module should be included in the standards of these modules.

Record Keeping
Training and competency records shall be created and maintained to document employee status on the basis of appropriate education, training, experience, as well as observation. Regulatory requirements for orientation, hazard, and task training must be included.
Workbook Materials For Module 5

Training Assessment/Competency Assurance
For each job assignment an assessment should be completed to assure persons performing the work have been properly trained and are competent with skills and knowledge of how to complete the job safely. The assessment is to include a process to continually evaluate the individual’s competency level and his or her efforts to maintain the standard.

Employee/Group: __________________________________________________________
Job Assignment: ___________________________________________________________
Work Area: _______________________________________________________________
Employee Classification: ____________________________________________________

Job Tasks For Classification:
1. ___________________________________________ 5. __________________________
2. ___________________________________________ 6. __________________________
3. ___________________________________________ 7. __________________________
4. ___________________________________________ 8. __________________________

Assess for Each Task - Training
Task: _____________________________________________________________________
Type Training Required: _____________________________________________________
Training Required By Regulation: Yes ____ No _____ Agency: ___________________
Are Training Materials Available For The Task: Yes ____ No ______
Training Materials Required: _________________________________________________
________________________________________________________________________
________________________________________________________________________
Do The Training Materials Address The Risk And Actions To Mitigate: Yes ____ No ____
Has Employee Received Training: Yes _____ No _____
Date of Training: ________________________________________________
Trained By: _____________________________________________________
Training Materials/Methods Used: _________________________________
____________________________________________________________________
Documentation: ________________________________________________ (form type/number)
Record Location: ________________________________________________

Periodic Refresher Required: Yes _____ No _____
Frequency: __________________________________________________________________________
Next Date: __________________________________________________________________________

Comments:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
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________________________________________________________________________
________________________________________________________________________
### Assess for Each Task - Competency

<table>
<thead>
<tr>
<th>Task:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type Training Completed:</td>
<td></td>
</tr>
<tr>
<td>Date of Training:</td>
<td></td>
</tr>
<tr>
<td>Trained By:</td>
<td></td>
</tr>
<tr>
<td>Training Materials/Methods Used:</td>
<td></td>
</tr>
</tbody>
</table>

| Competency Assessment Date: |  |
| Person Assessing: |  |
| Type of Assessment: |  |
| Document Review: |  |
| Observation: |  |
| Demonstration: |  |
| Findings: |  |

<table>
<thead>
<tr>
<th>Competent To Perform Job: Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>If no, action plan required:</td>
<td></td>
</tr>
</tbody>
</table>

| Follow Up Schedule: |  |
Trainer Assessment/Train-the-Trainer

In order to adequately train and educate an employee on safe job performance, the trainer must be fully aware of associated risks and knowledgeable of the task. Trainer competency verification must be considered. Training need not be completed by persons assigned to a training position. Hazard or task training may indeed be given by a co-worker knowledgeable and experienced in the task. However, whoever delivers training; a responsible person must determine the person has been deemed competent in understanding the job risks themselves. Task knowledgeable persons should be considered to establish a train-the-trainer program, expanding the competency and skills capabilities within the organization.

Employee: ________________________________________________________________
Job Assignment: ___________________________________________________________
Work Area: _______________________________________________________________

Qualified to Perform the Following Training: (Hazard, SOP Task, Refresher, etc.)
1.  ________________________________  5.  ________________________________
2.  ________________________________  6.  ________________________________
3.  ________________________________  7.  ________________________________
4.  ________________________________  8.  ________________________________

Training Certifications/Qualifications:
________________________________________________________________________
________________________________________________________________________

Continuing Development Plan:
Action Needed: _____________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Schedule: _________________________________________________________________
_________________________________________________________________________

Training and Competence
Emergency Management

Emergency and Crisis Management is the process of: Identifying, planning for and responding appropriately to emergency and crisis situations through emergency prevention and action plans that include:

- Identifying emergencies which effect health and safety, have environmental impact or cause business interruption.
- Resource allocation
- Training
- Emergency response communication and coordination

How it works

An effective safety and health management system is designed to prevent incidents of significant risk from occurring. However, there remains the potential for uncontrollable factors such as natural disasters, workplace terrorism, and emergencies that override safeguards and controls. For these instances, a well-designed, trained and tested emergency and crisis management system is necessary.

Proper programs and planning can mitigate the risk, prevent a worsening of an emergency and by protecting responders, prevent additional incidents from occurring. Companies must have the capability to respond appropriately to emergency and crisis situations.

Emergency management includes:

- Significant Event Identification – Determine and rank by risk those emergency or crisis events which could:
  - Affect the health and safety of an operations workforce or surrounding community
  - Have an environmental impact on the operation or the surrounding community
  - Have an impact on the business continuity of the operation
• Emergency Prevention – Determine what plans and actions items are needed to eliminate or mitigate to an acceptable level the possibility of a non-emergency from becoming an emergency.
• Planning – Should an unexpected emergency occur, how should the operation respond
• Emergency Resources – What materials, equipment, information, organizations, and people are needed to respond to the emergency
• Training – Who needs to do what when an emergency occurs?
• Coordination and Communication – What government agencies and non-governmental stakeholders need to be involved and how do we coordinate to manage the emergency with key groups?
  • Media – Where will the media be staged, who will liaison and how will up dates/briefings be provided?
  • Families – How will families' privacy be ensured and their needs met, and how will families be segregated from facilities provided for the media? How will communication be conducted with the families?
• Recovery – Once the real emergency is addressed, how do we recover?

Flow of the Process

Develop a Site Specific Emergency Response Plan
A site specific plan, developed by a crisis management team including subject experts, should be based on a critical assessment of potential emergency scenarios and their risk impact on health and safety, environmental control, and business continuity.

Communicate
All potentially affected personnel, organizations, agencies, communities, and stakeholders should be briefed and aware of their role in the specific emergencies identified in the plan.

Train
Emergency response drills, both roundtable and actual should be conducted with sufficient frequency and intent to assure confidence in the event of a real emergency. All parties
expected to respond to the emergency should be involved in the training and actual drills. Roundtable planning sessions should be considered and include all responding management and emergency personnel/organizations.

**Annually Evaluate the Adequacy of the ERP**
At least annually the ERP should be audited and reviewed for adequacy. All parts of the plan should be reviewed and amended as needed to assure that all procedures and protocols are up to date and communicated to the affected parties.
Workbook Materials For Module 6

Emergency Management Responsible Persons
Persons authorized and empowered by management should be assigned to head the development, implementation and maintenance of the Emergency Management System.

Team Leader: ___________________________________________________________
Work Area: __________________________________________________________________
Responsibility: __________________________________________________________________

EMS Team:

Member: ___________________ Member: ___________________
Work Area: ___________________ Work Area: ___________________
Responsibility: ___________________ Responsibility: ___________________
Subject Expert: ___________________ Subject Expert: ___________________

Member: ___________________ Member: ___________________
Work Area: ___________________ Work Area: ___________________
Responsibility: ___________________ Responsibility: ___________________
Subject Expert: ___________________ Subject Expert: ___________________

Member: ___________________ Member: ___________________
Work Area: ___________________ Work Area: ___________________
Responsibility: ___________________ Responsibility: ___________________
Subject Expert: ___________________ Subject Expert: ___________________

Member: ___________________ Member: ___________________
Work Area: ___________________ Work Area: ___________________
Responsibility: ___________________ Responsibility: ___________________
Subject Expert: ___________________ Subject Expert: ___________________
Site Critical Risks

Emergency and crisis events should be identified as they pertain to health and safety, environmental impact, and business interruption. Each event should be ranked considering the consequences and using a risk matrix similar to that of Module 4. For each critical event, mitigated critical controls with implementation action plans should be developed.

Site Critical Risk: ______________________________________________________
Risk Value: __________________

Responsible Persons:

Leader: _________________________   ____________________________
Subject Experts: _________________________   ____________________________
_______________________   ____________________________
_______________________   ____________________________

Potential Consequences:

______________________________________ Risk Value: __________________
______________________________________ Risk Value: __________________
______________________________________ Risk Value: __________________
______________________________________ Risk Value: __________________
______________________________________ Risk Value: __________________

Mitigating Critical Controls: ______________________________________________
(List by Most Effective)

______________________________________________
______________________________________________
______________________________________________
______________________________________________
______________________________________________

Emergency Management
Action Plans: (Complete for each critical control)

Critical Control: ___________________________________________________
Action to Implement: ___________________________________________________

___________________________________________________
___________________________________________________

Due Date: ___________________________________________________
Responsible Person: _____________________________________________
Follow Up Date: ______________________________________________
Status: ______________________________________________________

___________________________________________________
___________________________________________________
Site Emergency Response

Should an unexpected significant event occur, an organization must be prepared to and have the capability to respond appropriately to the emergency and crisis situation. Time is the most critical factor to manage. How persons react to an emergency is of extreme importance. However, the decision to activate the Emergency Response Team must be made quickly.

<table>
<thead>
<tr>
<th>Emergency Event:</th>
<th>Person/Group</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responders Required:</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Person to Notify:</td>
<td></td>
<td></td>
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<tr>
<td>Security:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety Department:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management:</td>
<td></td>
<td></td>
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<tr>
<td>Human Resources:</td>
<td></td>
<td></td>
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<tr>
<td>Engineering Dept.:</td>
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<tr>
<td>Agencies:</td>
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<tr>
<td>Off Site Response:</td>
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<tr>
<td>Community Services:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media:</td>
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</tbody>
</table>

Emergency Management
Notification Procedures
Establish the protocols for the process taking into all communications needed from the initial reporting of the accident through the response and handling of the event.

- Who should the incident be reported to
- Information needed from person(s) reporting the incident
- Questions the person being notified should ask
- Protocol for notifying other parties
- Communications during event response
- Family and Media Updates
- Communication equipment to have in place

Responsibilities
Identify and document the responsibilities and actions for each of the responders and persons to notify listed above. Keeping in mind the tasks will be specific and may include:

- Next notification
- Facilities to prepare
- Information to supply
- Action needed to respond and handle situation

For these critical event responses, each action must have a person responsible to assure each critical step gets completed.

Emergency Resources
Identify and list all equipment and/or information which may be needed to respond to the emergency. Cooperation will be needed with offsite responders and services to assure any site specific materials are available to them.

Responding Person/Group: ________________________________
Equipment/Materials: __________________________________________
Location: _________________________________________________
Person Responsible: _________________________________________

Emergency Management
Coordination of Non-Responder Groups and Agencies

Individual/Group/Agency: _______________________________________________
Person Responsible: _______________________________________________
Actions Needed: _______________________________________________
Staging Area: _______________________________________________
Communications Needed: _______________________________________________
Frequency of Notifications: _______________________________________________
Other Accommodations: _______________________________________________

Training and Drills
Emergency response drills, both roundtable and actual should be conducted with sufficient frequency and intent to assure confidence in the event of a real emergency. A training plan should be developed by the emergency management team with input from the subject matter experts and those parties involved in response to the event type.

Site Significant Event: _______________________________________________
Type of Training: _______________________________________________
Responsibele Persons: _______________________________________________
Participants: _______________________________________________
Date: _______________________________________________
Training Plan: _______________________________________________
Summary of Drill: _______________________________________________
Action Items Needed: _______________________________________________
Review the Adequacy of the ERP
At least annually the ERP should be audited and reviewed to assure all critical events are up to date and all response plans are adequate.

Plan Section: ____________________________________________________________

Review Date: ____________________________________________________________

Responsible Person(s): ______________________________________________________

Findings:  _________________________________________________________________

________________________________________________________________________

Action Items: (Include responsible persons and schedule)

________________________________________________________________________

________________________________________________________________________

Time Frame to Complete: _________________________________________________

Communication Needed: ____________________________________________________

________________________________________________________________________

________________________________________________________________________

Additional Training Needed: ________________________________________________

________________________________________________________________________

________________________________________________________________________
Cultural Enhancement

Safety culture is the way that safety is perceived, valued and prioritized in an organization.

No safety system will be effective without a complimentary safety and organizational culture. An operation’s safety culture has a major influence on its safety performance. Whether the culture is strong and positive depends on the degree to which management understands current characteristics, has a clear idea of what the future culture should look like - based on vision, values and strategy - and has a process to actively enhance the culture. Culture change takes planning, broad involvement and patience.

Culture is driven through leadership and cascades through the entire organization. As a result, the attitudes, actions, behavior and communication of managers have the greatest impact on safety culture, but not to exclusion of workers who sustain the culture.

Creating and Enhancing Culture is the process of:

- Establishing a desired OH&S culture expectancy as part of the company’s safety policy
- Identifying desired safety culture characteristics
- Assessing strengths and weaknesses
- Developing and implementing a culture improvement plan

How it works

Measuring and Assessing Culture

Culture can be measured and managed, and small changes in culture can have a long-lasting effect on safety and health performance.

Culture is measured and assessed through a confidential employee perception survey and employee interviews, where appropriate.
Key indicators of positive, supportive cultures include:

- Agreement and compliance with the company’s OH&S policies and plans
- Trust among managers and workers and between workers and managers
- Fair and equitable treatment of employees
- Comfort about reporting incidents and a strong interest in understanding what caused the incident
- A constant state of vigilance regarding hazards and risk (no complacency)
- A pervasive sense of personal and group safety and health responsibility and consistent accountability to match
- Safety and health as common organizational values
- Consistently empowered workers who are confident regarding management’s safety and health approach.

Companies may elect to conduct their own cultural assessment, use the CORE Safety assessment tool or work with an external expert. The latter approach ensures confidentiality and optimal data analysis. Once strengths and weaknesses are identified through the assessment process, a culture enhancement plan can be developed and implemented.

Flow of the Process

As stated, no successful OH&S Plan will be successful without a complementary safety and organizational culture. To assure the desired principals and behaviors are infused throughout the workplace, an organization must:

- Identify the required safety culture characteristics for the company to fulfill the 0:50:5 goals
- Conduct confidential employee survey to access perceptions of the company’s safety culture, identifying strengths and weaknesses
- Develop a culture improvement plan based survey findings
- Verify culture improvement by re-conducting the culture perception survey at appropriate intervals relative to the improvement plan expectations.
- Repeat the process as necessary to ensure continuous improvement in safety culture perception.
Workbook Materials For Module 7

The safety culture expectancy should be clearly designated in the organizations OH&S policy. The culture characteristics required to promote continual improvement in safety and health and to achieve 0:50:5 goals need to be clearly identified, communicated for accountability, and included in all enhancement plans. To determine the site’s safety culture employees must be confidentially surveyed, and the information assessed for strengths and weaknesses. Findings of the survey must then be addressed in the ongoing culture enhancement program.

Cultural Characteristic Identification

Responsible Persons:

Team Leader: ________________________  ___________________________

Subject Experts: ________________________  ___________________________

Desired Cultural Characteristics:

1. ________________________________________________________________
2. ________________________________________________________________
3. ________________________________________________________________
4. ________________________________________________________________
5. ________________________________________________________________
6. ________________________________________________________________
7. ________________________________________________________________
8. ________________________________________________________________
9. ________________________________________________________________
10. ________________________________________________________________

Cultural Enhancement
Confidential Employee Surveys
The safety culture questionnaire is a set of statements that respondents are asked to agree or disagree with by marking their choice on a pre-determined scale (e.g., 5-point scales, Yes/No, etc.).

Responsible Persons:

Team Leader: _______________________   _______________________
Development/Review Committee:
_______________________   ________________________
_______________________   ________________________
_______________________   ________________________

Survey Schedule/Date: ___________________________________________________
Survey Group: In House _______ Third Party ___________
Survey Type: Interview _______ Questionaire _________e-Survey __________

Subject Groups:

Management
_____________________________  _____________________________
_____________________________  _____________________________
_____________________________  _____________________________
_____________________________  _____________________________

Hourly Workforce

Survey Topics:

Management
_____________________________  _____________________________
_____________________________  _____________________________
_____________________________  _____________________________
_____________________________  _____________________________

Hourly Workforce

Cultural Enhancement
Questions:
Based on the desired cultural characteristics, subject groups, and survey topics, develop a list of survey questions that will provide the organization an overall perception of the safety and health culture; the attitudes, actions, and behaviors, supported by the operations employees. The survey can be developed independently from within the organization, through the use of tools available from the CORESafety website, or be completed by a third party expert.

Results:
Report Date: ________________________
Report Number: _____________________
Key Findings: ____________________________________________________________________
______________________________________________________________________________
# Culture Improvement Plan

## Responsible Persons:

| Team Leader: | ______________________ | ______________________ |
| Development/Review Committee: | ______________________ | ______________________ |

| Plan Date: | ______________________ |
| Plan Number: | ______________________ |

## Findings From Assessment:

| Strength/Weakness: | ______________________ |
| Plan to Address: | ______________________ |
| Scheduled Date: | ______________________ |

| Strength/Weakness: | ______________________ |
| Plan to Address: | ______________________ |
| Scheduled Date: | ______________________ |

| Strength/Weakness: | ______________________ |
| Plan to Address: | ______________________ |
| Scheduled Date: | ______________________ |
Enhancement Verification – Follow Up Surveys

Responsible Persons:

Team Leader: _______________________  ________________________

Development/Review Committee:

_______________________   ________________________
_______________________   ________________________

Survey Schedule/Date: ____________________________________________

Survey Group:  In House ________ Third Party __________

Survey Type:  Interview ________ Questionaire _________e-Survey __________

Subject Groups:

<table>
<thead>
<tr>
<th>Management</th>
<th>Hourly Workforce</th>
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Survey Topics:

<table>
<thead>
<tr>
<th>Management</th>
<th>Hourly Workforce</th>
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<tbody>
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</table>

Questions:
The follow up survey may be a re-assessment using utilizing the complete original survey or maybe customized to evaluate just the key items included in the enhancement plan.

Results:

Report Date: _______________________

Report Number: _______________________

Key Findings: __________________________________________________________

Cultural Enhancement
Effective communication is a key factor in safety and health management. Achieving the 0:50:5 goals will not be possible without it. One of the most important forms of communication is collaboration involving managers, miners, other workers and stakeholders in the safety decision-making and problem solving process.

Whether discussing standard operating procedures, how to minimize risk in a non-routine task, reinforcing safety behavior among two co-workers or participating in a safety meeting, communication is critical and should be included in the safety and health management process accordingly.

Collaboration and Communication is the process of:

- Fostering effective two-way communication and involvement among all employees in safety and health decision making and problem solving.
- Ensuring that all relevant safety and health information is shared through open, transparent and frequent communications.

How it works

Engaging Proper Collaboration and Communication
Two-way communication increases involvement and participation in the safety and health management processes. The goal is to have the highest percentage of any operations workforce involved in the safety and health management processes. Decision making and problem solving for safety and health should not be the exclusive right or responsibility of management.

Consultation within the workforce is one of the best ways to promote feedback regarding safety and health activities and to gain buy-in. All company employees, regardless of their title or function, should be involved in safety and health management by carrying out their designated responsibilities.
In all cases, communication should be open, transparent, mutual and as frequent as possible. Leaders should seek out every opportunity to communicate their vision and personal commitment to safety and health, as well as the appropriate way to work to achieve the 0:50:5 goals.

**Flow of the Process**

For a successful SHMS there must be a process to communicate the company’s health and safety management system to all employees and stakeholders including a consultation method that incorporates input from employees and other important stakeholders on the development, communication and implementation of the CORESafety initiative with emphasis given to improving risk management and job safety performance.

- Develop an ongoing communication process so all employees, contractors, and other stakeholders receive critical safety and health information and can provide feedback when desired
- Actively manage the visual component of the communication process (signs, posters, instructions, etc.) to ensure effectiveness and message freshness
- Develop a process to address safety and health suggestions, concerns, and complaints in a manner that protects the source from discrimination
- Consult employees regarding implementation and improvement of the SHMS. Involve them in safety and health problem solving and management to the greatest extent practical
- Develop an ongoing process to optimize the percentage of employees involved in proactive management activities that drive safety and health performance improvement
- Establish safety and health committees or teams at all appropriate levels. The team should have management and worker representatives, be trained and focus on personal involvement.
- Develop a repository for safety and health management data and other information to use for analysis and internal communication.
Workspace Materials For Module 8

Effective communication is a key factor in safety and health management. Achieving the 0:50:5 goals will not be possible without it. One of the most important forms of communication is collaboration involving managers, miners, other workers, and stakeholders in the safety decision-making and problem-solving process.

Whether discussing standard operating procedures, how to minimize risk in a non-routine task, reinforcing safety behavior among two co-workers or participating in a safety meeting, communication is critical and should be included in the safety and health management process accordingly.

**Communication Process**

Develop an ongoing communication process so all employees, contractors, and other stakeholders receive critical safety and health information and can provide feedback when desired.

**Responsible Persons:**

Team Leader: _______________________  _______________________

Members: _______________________  _______________________

_______________________  _______________________

_______________________  _______________________

_______________________  _______________________

_______________________  _______________________

coresafety.org
Safety & Health Information to Communicate:
Example: accident reports, incident investigations, S&H performance metrics, plan & policy changes, fatal grams, lessons learned, risk complete for each topic

Groups(s) to Receive:

Method to Deliver:

Frequency of Communication:

Method to Receive and Record Feedback:

Responsible Review Guideline:

Plan to Follow Up and Report Findings:
**Visual Components**

Actively manage the visual component of the communication process (signs, posters, instructions, etc.) to ensure effectiveness and message freshness.

**Responsible Persons:**

Team Leader: _______________________   _______________________

Members:   _______________________   _______________________
            _______________________   _______________________
            _______________________   _______________________

**Safety Topic:**

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

**Visual Type (example: sign, poster, plan, notice, etc.)**

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

**Locations to Post:**

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

**Display Schedule/Replacement Date:**

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________
Safety & Health Comments and Complaints

Develop a process to address safety and health suggestions, concerns, and complaints in a manner that protects the source from discrimination.

Responsible Persons:

Team Leader: _______________________  _______________________  Members:
_______________________  _______________________  _______________________
_______________________  _______________________  _______________________
Type:  Suggestion: _______  Concern _________  Complaint ________

Reporting Method: (example: Suggestion Box, Web Site, Phone Message)

_______________________________________________________________________
_______________________________________________________________________

Review Committee:  _______________________  _______________________  _______________________
_______________________  _______________________  _______________________

Response Method:

_______________________________________________________________________
_______________________________________________________________________

Response Timing:

_______________________________________________________________________
_______________________________________________________________________

Collaboration and Communication
Safety and Health Committees and Teams

Safety teams are a platform for employees and management to work together to prevent accidents by addressing employees’ concerns about health and safety, carrying out inspections and solving safety and health problems which occur in the field.

Establish safety and health committees or teams at all appropriate levels. The team should have management and worker representatives, who are appropriately trained and focus on personal involvement.

Develop an ongoing process to optimize the percentage of employees involved in proactive management activities that drive safety and health performance improvement.

Consult employees regarding implementation and improvement of the SHMS. Involve them in safety and health problem solving and management to the greatest extent practical.

Committee/Team: _______________________________________________________

Work Area: ____________________________________________________________

Subject Coverage: _______________________________________________________

Examples: Selection of PPE, Developing safety procedures and rules, Management of change process, Internal Audits and Assessments, Review of the H&S management system, Accident Investigation, Training programs, Planned workplace and facility inspections, Developing safety meeting subjects/materials, Reviewing and making recommendations for new processes and acquisition of new equipment, Contractor consultation

Team Members:

Management

_____________________________  _____________________________

_____________________________  _____________________________

_____________________________  _____________________________

Hourly Workforce

Team Responsibilities:

________________________________________________________________

________________________________________________________________

________________________________________________________________
Workforce Participation: ____________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

**Procedures/Guidelines:**
- Meeting Schedule/Date: ____________________________________________
- Meeting Topic: ____________________________________________________
- Meeting Agenda: _________________________________________________

Team Members: Management Hourly Workforce

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

**Report of Findings/Results**
- Method: __________________________________________________________
- Schedule: _________________________________________________________
- Responsible for Action Items: _______________________________________
- Follow Up Schedule: ______________________________________________

Refer to CORESafety Module 8 Resources; STANDARD OPERATING
PROCEDURES, Safety Team, Representatives and Employee Involvement
Reinforcement and Recognition

People are more effectively motivated by positive reinforcement than with negative consequences. Positive reinforcement can be formal (reward, symbolic recognition, public recognition, etc.) but it is often most effective when leaders see people doing right things.

Reinforcement and Recognition is the process of:

- Using formal and informal positive feedback and rewards.
- Recognizing and reinforcing behaviors and actions that contributes to good health and safety performance.

How it works

Using Reinforcement and Recognition

Reinforcement and recognition that is delivered in a positive manner, soon after and on a consistent basis relative to desired behaviors, is most reinforcing. Comments and actions delivered in a negative, delayed and uncertain manner are much less likely to motivate workers to pursue the desired behavior. This does not mean reprimands aren’t important. Rules and procedural violations must be assessed by management and addressed in an appropriate, consistent manner.

Positive recognition reinforces safe behaviors, improves attitudes and personal value. When positive reinforcement is genuine it also reflects positively on the leader. Positive reinforcement helps create engaged workers (those aligned with the company’s values and mission) and not just motivated workers (those who work hard to achieve personal gain through the company).
Flow of the Process

The practice of reinforcing and recognizing positive behavior lends great support to good health and safety performance. Celebrating success can be on an individual or collective basis. A process of consistently reinforcing positive efforts can be used as an aid to when progressive counseling is needed to address health and safety non-conformities.

- Establish a formal process to reinforce and recognize employee safety and health performance, involvement in proactive activities, and reinforcing safe behaviors, etc.
- Establish an informal, but ongoing, process that encourages all manager/leaders to conduct one-on-one interactions to build relationships and provide positive reinforcement.
- Link reinforcement and recognition to behavior optimization.
Workbook Materials For Module 9

Reinforcing and recognizing positive actions and performance is a key factor in establishing an operator’s emphasis toward good health and safety performance. People are motivated by positive reward and when good efforts are consistently and timely recognized, it will pay great dividends to the worker aligning with the company’s mission and goals.

Positive Behavior Reinforcement and Recognition
Establish a formal process to reinforce and recognize employee safety and health performance, involvement in proactive activities, and reinforcing safe behaviors, etc.

Responsible Persons:
Team Leader:
_________________________    ________________________
Members:
_________________________    ________________________
_________________________    ________________________
_________________________    ________________________

Management Plan: (example: Supervisor to individual, site wide safety initiative)
________________________________________________________________________
________________________________________________________________________

Employee Action to Reward:
(example: H&S Performance, Near Miss Reporting, Safe Action Recommendation, etc.)
________________________________________________________________________
________________________________________________________________________

Recognition Timing: (example: Immediate, Monthly, Quarterly)
________________________________________________________________________
________________________________________________________________________

Type of Recognition:
(example: Verbal reinforcement, Pier announcement, monetary reward)
________________________________________________________________________
________________________________________________________________________

Method to Deliver:
(example: Informal (personal) or Formal (company recognition))
________________________________________________________________________
Management/Leader Coaching

Establish an informal, but ongoing, process that encourages all manager/leaders to conduct one-on-one interactions to build relationships and provide positive reinforcement.

Responsible Persons:
- Team Leader: ________________________
- Members: ________________________
- ________________________
- ________________________
- ________________________

Coaching Process:
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Manager/Leader:
- Name: ________________________
- Position: ________________________
- Work Group/Crew: ________________________

Coach:
- Name: ________________________
- Position: ________________________
- Work Group/Crew: ________________________

Schedule:
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
Process Auditing
Link reinforcement and recognition to behavior optimization

Auditing Committee:
Team Leader: _______________________  _______________________
Members: ____________________________________________________
  __________________________________________________________
  __________________________________________________________
  __________________________________________________________

Auditing Process:
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Review Schedule: (Date and/or Frequency)
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Subjects (Persons) to Audit:
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Expected Outcomes:
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
The selection, training and management of personnel are critical to achieving safety excellence, as companies depend on the behavior of individuals working within management-controlled environments and processes.

Resources and Planning is the process of:
Managing and aligning human resource activities to achieve the 0:50:5 objectives through:

- Hiring standards
- Conditions of Employment
- Employee assimilation
- Collective bargaining agreements
- Corrective discipline policy

How it works

Individual performance is critical to achieving 0:50:5 goals. That makes close alignment and mutual support between line management, human resources and safety and health professionals vital to success.

Recruiting workers with a strong personal safety value, ensuring they are free from the negative influence of drugs and alcohol (D&A), mentally and physically prepared to work, and ready and willing to work in compliance with your company’s rules and procedures will greatly increase the potential for companies to achieve 0:50:5. These human resource-related activities should be actively and consistently managed to be effective.
Flow of the Process

An individual's behavior and safe work culture are key to achieving the desired safety and health performance. To ensure personnel are qualified and on board with corporate initiatives, an organization should:

- Develop hiring standards that describe the requirements of each job and verify candidates can perform the work.
- Utilize behavior-based questions in the hiring process to highlight personal safety and health values and improve judgment regarding candidates’ alignment with company values.
- Formally establish working safely as a condition of employment and define the consequences of failing to do so.
- Require job candidates to submit pre-employment physicals to ensure they are physically able to perform the described job and identify any pre-existing conditions.
- Ensure alignment between collective bargaining agreements and safety and health policies, as appropriate, e.g., safe work as a condition of employment, D&A testing, health monitoring, etc.
- Develop a company-specific D&A policy and testing procedure to minimize the potential for negative consequences on safety and health performance.
- Integrate safety and health standards into succession planning
- Develop an employee assimilation process to ensure the safe and healthy integration of new employees into the work environment.
Workbook Materials For Module 10

The selection, training and management of personnel are critical to achieving safety excellence, as companies depend on the behavior of individuals working within management-controlled environments and processes.

Individual performance is critical to achieving 0:50:5 goals. That makes close alignment and mutual support between line management, human resources and safety and health professionals vital to success.

**Hiring Policy - Checklist**

Develop hiring standards that describe the requirements of each job and verify candidates can perform the work.

**Department Responsibilities:**

Team Leader: ____________________________

Members: ________________________   ________________________

_______________________   ________________________

**Hiring Policy Established:** Yes ________ No ________

Policy No. ______________________________

Date: _________________________________

Storage Location: ____________________

**Colaborative Collective Bargaining/Labor Agreements:**

(example: Safe work as condition of employment)

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Clause</th>
<th>Compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.________</td>
<td>_______</td>
<td>Yes ______ No ______</td>
</tr>
<tr>
<td>2.________</td>
<td>_______</td>
<td>Yes ______ No ______</td>
</tr>
<tr>
<td>3.________</td>
<td>_______</td>
<td>Yes ______ No ______</td>
</tr>
<tr>
<td>4.________</td>
<td>_______</td>
<td>Yes ______ No ______</td>
</tr>
</tbody>
</table>

**Associated Safety & Health Policies:**

(example: Drug & Alcohol Testing, Health Monitoring, Fit for Work)

<table>
<thead>
<tr>
<th>Policy</th>
<th>Clause</th>
<th>Compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.________</td>
<td>_______</td>
<td>Yes ______ No ______</td>
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<td>2.________</td>
<td>_______</td>
<td>Yes ______ No ______</td>
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<td>3.________</td>
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<td>Yes ______ No ______</td>
</tr>
<tr>
<td>4.________</td>
<td>_______</td>
<td>Yes ______ No ______</td>
</tr>
</tbody>
</table>
Job Demands Included:  YES _______ NO_______
Job: ____________________________________________
Physical Requirements: ____________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
Technical Requirements: ____________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
Other Requirements: ____________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Pre-Employment Physical Required:  Yes _____ No _______
General Health Screen:  Yes _____ No _______
Fit for Work Exercise:  Yes _____ No _______
D & A Screen:  Yes _____ No _______
List Other
____________________  Yes _____ No ______
____________________  Yes _____ No ______
____________________  Yes _____ No ______

Employment Questionaire Completed:  Yes _____ No _______
Response Ranking:
5 _______
4 _______
3 _______
2 _______
1 _______

Resources and Planning
Pre-Hire Behavioral Questionnaire – Guidelines

Utilize behavior-based questions in the hiring process to highlight personal safety and health values and to improve judgment regarding a candidates’ alignment with company values.

Department Responsibilities: ______________________________________________
Team Leader: _______________________________________________________
Members: ____________________________________________________________

Questionaire:
Objective: ______________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Source:
Inter Company _________________________________________________________
Outsource ___________________________________________________________

Subjects: _______________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Ranking Criteria:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Health and Safety</th>
<th>Company Values</th>
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</tbody>
</table>

Resources and Planning
Safe Work Policy

Establish working safely as a condition of employment and define the consequences of failing to do so.

**Department Responsibilities:**

Team Leader: ____________________________________________
Members: ____________________________________________

**Policy Administration:**

Policy Number: _______________________
Date: _______________________
Sign of Responsibility: _______________________
Storage Location: _______________________

**Policy Standards/Expectations:**

_______________________________________________________________________
_______________________________________________________________________

**Violations of Policy:**

_______________________________________________________________________
_______________________________________________________________________

**Corrective Action Plan:**

<table>
<thead>
<tr>
<th>Violation</th>
<th>Occurrence</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
</tbody>
</table>
Drug and Alcohol Policy
Establish working safely as a condition of employment and define the consequences of failing to do so.

Department Responsibilities: ________________________________
Team Leader: ___________________________________________________________________
Members: _______________________   ________________________
_______________________   ________________________

Policy Administration:
Policy Number _________________
Date _________________
Sign of Responsibility _________________
Storage Location _________________

Policy Standards/Expectations: ________________________________
_______________________________________________________________________
_______________________________________________________________________

Screening Requirements: ________________________________
_______________________________________________________________________
_______________________________________________________________________

Test Administrator:
Facility ___________________________________________________________________
Location ___________________________________________________________________
Contact Person ___________________________________________________________________
Contact Info ___________________________________________________________________
Phone ___________________________________________________________________
Email ___________________________________________________________________

Corrective Action Plan:

<table>
<thead>
<tr>
<th>Violation</th>
<th>Occurrence</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________</td>
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<td>_________________</td>
</tr>
</tbody>
</table>

Resources and Planning
New Employee Integration into the Working Environment

Develop an employee assimilation process to ensure the safe and healthy integration of the new employees into the working environment.

Department Responsibilities: ______________________________________________

Team Leader: ___________________________________________________________

Members: ______________________________________________________________

Integration Process:

Objective: __________________________________________________________________

________________________________________

________________________________________

Integration Procedures: (CORESafety training, working with experienced crews, etc.)

Office Training: _______________________________________________________

________________________________________

On the Job Training: ____________________________________________________

________________________________________

Job Integration Plan: ____________________________________________________

________________________________________

Program Administration:

Documentation Required: ________________________________________________

________________________________________

Document Storage Location: ______________________________________________

Integration Process Schedule: _____________________________________________

Sign Off Responsibility: ________________________________________________
Change Management

Changes that occur in the operation or related facilities should not introduce new hazards, negatively change the risk rating of existing hazards or degrade controls. This is accomplished through a process called “change management.”

Once hazards are identified, risks assessed and prioritized, and controls implemented, management-coordinating with its workforce-systematically looks for and controls change that can increase unacceptable risk. Change that results in unacceptable risk should be managed in the same manner as any other unacceptable hazard/risk, through appropriate and effective controls.

Change Management is the process of:

Identifying changes in the organization and at the operation that may introduce new risk or increase unacceptable risk by proactively looking for and controlling change at every level of the organization and across functional areas, including emergency management.

How it works

Fundamental to effective change management is training to ensure all affected personnel have a clear understanding of what “change” requires inclusion in the management process. The change management process should apply to every functional area and every level of the organization.

The management process should include changes that are:

- Planned or unplanned
- Temporary
- Incremental or permanent
And affect the operation’s plan and/or the facilities and its:

- Processes
- Systems
- Procedures
- Equipment
- Products
- Material
- Organization
- Personnel

The change management process should include a provision to address emergencies where the full management of change is likely to be unrealistic. As such, management of change and emergency management should be closely coordinated, with the goal of ensuring emergency procedures exercised in response to a crisis or emergency do not introduce additional and unacceptable risk.

**Flow of the Process**

Procedures to establish the process for effectively managing change within the operation or facilities:

- Define change requiring management review. Communicate this process to all affected employees, contractors and other stakeholders.
- Develop a change management procedure that defines the “who, what, when and how” for the reviews. Define who is authorized to approve change actions.
- Ensure that the procedure includes provision to verify that change management actions have been completed and that they do not significantly result in new, negative risk.
- Integrate change management actions into the safety and health communication process to ensure all potentially affected parties are knowledgeable.
- Document change management decisions for tracking and verification purposes and for future reference.
Workbook Materials For Module 11

Change management involves identifying changes in the organization and at the operation that may introduce new risk or increase unacceptable risk by proactively looking for and controlling change at every level of the organization and across functional areas, including emergency management.

Fundamental to effective change management is training to ensure all affected personnel have a clear understanding of what “change” requires inclusion in the management process. The change management process should apply to every functional area and every level of the organization.

Change Management Review Process

Change Management Process Manager:

Name: ________________________________________________________________
Title:   ___________________________________________________________________
Department:  __________________________________________________________

Identify the Change:

Change Initiator

Name:  ______________________________________________________________
Title:  _______________________________________________________________
Department:  _________________________________________________________

Change Recommended

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Change Management
Area/Department of Required Change:
- Facilities and Equipment
- Processes
- Operating Procedures
- Design and Construction
- Maintenance Procedures
- Materials Used
- Consumables Used
- Organization Structure/Responsibilities
- Personnel Changes, Training, or Competencies
- Individual Roles or Responsibilities
- Mine Design/Planning
- Contractor Administration
- Regulatory/Statutory Regulations
- Other

Business Area Affected:
- Health and Safety
- Environmental and/or Social Responsibility
- Business Continuity

Details of Requested Change:
_______________________________________________________________________
_______________________________________________________________________

Impacts of Proposed Change:
_______________________________________________________________________
_______________________________________________________________________

**Project Administration:**

Project Name ___________________________________________________________
Date Initiated ___________________________________________________________
Date Required ___________________________________________________________
Policies/Regulations Involved _____________________________________________
_______________________________________________________________________
Documentation Required _________________________________________________
_______________________________________________________________________
Assess, Authorize and Verify Change:

Change Assessor:

Name: _________________________________________________________________
Title: __________________________________________________________________
Department: __________________________________________________________________

Change Authorizor:

Name: _________________________________________________________________
Title: __________________________________________________________________
Department: __________________________________________________________________

Change Verifier:

Name: _________________________________________________________________
Title: __________________________________________________________________
Department: __________________________________________________________________

Assess the Risk – Identify & Evaluate Risks
Using the tools provided in Module 4, Fatality Prevention/Risk Management, conduct a risk assessment of the change.

Risk: __________________________________________________________________
______________________________________________________________________
Likelihood (A-E): ______________ Consequence (1-5): ______________

Ranking:
Extreme: 1A-D, 2A-C, 3A
High: 1E, 2D, 3 B-C, 4 A-B, 5A
Medium: 2E, 3 D-E, 4C, 5B
Low: 4 D-E, 5 C-E

Change Management
Assess, Authorize and Verify Change (cont.):

Mitigating Controls: ______________________________________________________
________________________________________________________
________________________________________________________

Residual Risk Rank: ______________________________________________________

Test/Trial Required: Yes _______ No _________
Date: ______________________________
Duration: ______________________________
Findings: ______________________________
________________________________________________________

Authorization Required: Yes _______ No _________

Audit Schedule:
Date: ______________________________
Frequency: ______________________________

Authorize the Change:

Change Management Process Required: Yes _______ No _________

Sign Off Required:
Name: ______________________________
Department: ______________________________
Received: Yes _______ No _________
Name: ______________________________
Department: ______________________________
Received: Yes _______ No _________
Name: ______________________________
Department: ______________________________
Received: Yes _______ No _________
Received: Yes _______ No _________
Assess, Authorize and Verify Change (cont.):

Documentation Required:

- Document Name: ________________________________
  Completed: Yes ________ No ________

- Document Name: ________________________________
  Completed: Yes ________ No ________

- Document Name: ________________________________
  Completed: Yes ________ No ________

Change Management Plan:

- Responsible Person: ________________________________
- Department: ________________________________
- Implementation Schedule: ________________________________
- Subject Experts/Participants:
  __________________________  __________________________
  __________________________  __________________________
  __________________________  __________________________
- Implementation Plan: ________________________________
- Training Required: Yes ________ No ________
  Responsible Person: ________________________________
  Subject(s) to Cover: ________________________________
  Persons/Departments to Train: ________________________________
  Schedule: ________________________________
  Training Plan/Method: ________________________________
Assess, Authorize and Verify Change (cont.):

Communication/Info Sharing Required: Yes ________ No ________
Responsible Person: ____________________________________________
Subject(s) to Cover: ____________________________________________
Persons/Departments: ___________________________________________
Schedule: _____________________________________________________
Communication Method: _________________________________________

Verify the Change:

Change Complete: Yes _____ No ________
Change Management Plan Followed: Yes _____ No ________
Risk Mitigating Controls in Place: Yes _____ No ________
Training Complete: Yes _____ No ________
Communications Complete: Yes _____ No ________
Change Evaluated and Audited against Additional Risk: Yes _____ No ________
Findings: _____________________________________________________
Continued or Future Evaluations: Yes _____ No ________
Schedule: _____________________________________________________
Description: __________________________________________________
Responsible Person/Department: _________________________________
Documentation Complete: Yes _____ No ________
Sign Offs Complete: Yes _____ No ________
Name: _______________________________________________________
Title: _________________________________________________________
Department: _________________________________________________
Work Procedures and Permits

Safe Work Procedures and Permits to work are two main elements of the Health and Safety Management System.

Safe work procedures are a specified way to carry out an activity or a work process. Safe work procedures should be written and may include video-based instructions that outline the steps necessary to complete routine and some non-routine work tasks in a safe manner. They are generated from risk assessment processes such as systematic job and task SJT. (See Module 4 Fatality Prevention / Risk Management.) The keys to making work procedures effective are:

- Use workers who do the work to assist in procedure development
- Use the procedures for training, particularly for on-the-job training
- Ensure front line supervisors and/or managers audit work against the procedures

Permits to work offer a more controlled procedure for tasks that are either high risk or mandated by regulation to require a permit.

Misuse or avoidance of safe work procedures and permits should be addressed through corrective discipline. Conversely, adherence to safe work procedures and permits should be recognized with positive reinforcement.

Work Procedures and Permits is the process of:

Integrating safety and health into operations and maintenance by:

- Organizing and conducting work in a predictable manner.
- Specifying ways to carry out an activity or process.
- Using more controlled procedures for those activities or processes that are high risk or require a permit.
How it works

The Role of Line and Senior Management
Because line and senior management have the greatest ability and resources to prevent incidents, companies with world class safety and health performance often say “safety is a line function.” Line and senior management supervise and manage workers who are generally at greatest risk; they have the largest impact over equipment and the facility environments, and they control the resources necessary to make the safety and health management systems (SHMS) work.

One of the most effective points of focus for line management in the CORESafety SHMS is the integration of safety and health into operations and maintenance activities. Achieving the 0:50:5 goal means work tasks are conducted in an organized and predictable manner. And when they are not predictable, as with non-routine work, there should be procedures to assess the risk and procedures to make the work task as controlled and predictable as possible.

If the safe outcome of the task is uncertain, it should not be attempted until there is certainty.

Examples include, but are not limited to: hot work, confined space entry, high voltage electrical work, lifting and rigging, energy isolation, surface trenching, handling explosives and shot-firing, mobile equipment operation, mobile equipment maintenance, ground control, methane-rich environments, mining in seismically-unstable areas, among others.
Flow of the Process

- Standard operating procedures (SOPs) are developed for routine and repeated non-routine work based on work procedures and outcomes of systematic job and task (SJT) analyses.
- SOPs are used as the basis for on-the-job training and audited against by front line supervisor or managers. Competency verifications are also based on SOPs.
- General and specialized S&H rules should be developed, communicated to all employees and contractors and enforced through a fair and equitable disciplinary policy.
- Risk-specific and/or general work permit programs should cover all high risk work (whether routine or non-routine) and include sign-off authority and operational limitations.
- Protocols (more detailed SOPs) should be developed for high-risk tasks that warrant the highest level of control owing to the difficulty in minimizing risk and high consequences.
- Ensure safe work procedures and permit to work is fully integrated with Module 4.
- Ensure all contractors and vendors are trained on and comply with the work permit and safe work procedure requirements.
# Workbook Materials For Module 12

## Safe Work Procedures & Work Permits

Safe work procedures should be developed for those tasks where the absence of a permit or procedure could be detrimental to safety and health.

**Standard Operating Procedures (SOPs):** May also be referred to as SJP, JHA, JSA, etc.

The following outlines the standard steps to consider when preparing an SOP.

<table>
<thead>
<tr>
<th>Purpose: A brief description of the task and need for an SOP.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Scope: A statement that outlines what is to be covered by the SOP</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Definitions: Terms, acronyms, abbreviations should be defined avoiding any misinterpretation.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Task Risk Ranking: High _______ Moderate _______ Low _______</td>
</tr>
<tr>
<td>Task Type: Routine _______ Non Routine _______</td>
</tr>
<tr>
<td>Work Groups/Classifications:</td>
</tr>
<tr>
<td>Responsibilities: A summary of the roles listed in the procedure</td>
</tr>
<tr>
<td>Emergency Preparation: Communication, Evacuation, Muster Areas, EMS Services</td>
</tr>
<tr>
<td>Special PPE Required:</td>
</tr>
</tbody>
</table>
Specific Procedure: This section must include sufficient details of the task and be clearly expressed, providing enough information to enable a trained person to train others. Task risk assessments (Module 4) should be referred to.

<table>
<thead>
<tr>
<th>Basic Job Steps</th>
<th>Potential Hazards &amp; Consequences</th>
<th>Controls to Eliminate or Reduce Hazards</th>
<th>Equipment, Tools, PPE</th>
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</thead>
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</tbody>
</table>

Training Required:
- Persons: ____________________________________________________________
- Methods: ____________________________________________________________
- Schedules: ____________________________________________________________

Forms/Templates:
- Form Required: _______________________________________________________
- Form I.D.: ____________________________________________________________
- Form Description: ____________________________________________________
- ___________________________________________________________________
- ___________________________________________________________________

Review Responsibilities: _______________________________________________
- Person: ____________________________________________________________
- Position: ____________________________________________________________
- Department: _________________________________________________________
- Retention: __________________________________________________________
- Storage Location: ____________________________________________________
- Post Job Debriefing: _________________________________________________
- ___________________________________________________________________
- ___________________________________________________________________
- ___________________________________________________________________
Contractor Consideration:

Contractor: __________________________________________________________
Work Area: __________________________________________________________
Training Required: ____________________________________________________
____________________________________________________________________

Management Review:

Name: ______________________________________________________________
Position: ____________________________________________________________
Department: _________________________________________________________

SOP Audit: _____________________________________________________________
Responsible Department: ______________________________________________
Schedule: _____________________________________________________________

**Work Permit:**

Risk-specific work permit programs should cover all high risk work (whether routine or non-routine) and include sign-off authority and operational limitations. Protocols (more detailed SOPs) should be developed for high-risk tasks that warrant the highest level of control owing to the difficulty in minimizing risk and high consequences.

Purpose: A brief description of the task and need for a work permit.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Scope: A statement that outlines what is to be covered.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Definitions: Terms, acronyms, abbreviations should be defined avoiding any misinterpretation.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
Risk Identification:
Global Significant Risk: ________________________________________________
Site Significant Risk: ________________________________________________
Risk Ranking: ______________________________________________________
Residual Risk with Controls in Place: _________________________________

Standard Operating Procedure:
Title: _______________________________________________________________
Number: _____________________________________________________________
Storage/File Location: _______________________________________________

Special Training Required:
Persons: _____________________________________________________________
Methods: _____________________________________________________________
Schedules: ___________________________________________________________

Forms/Templates:
Form Required: _______________________________________________________
Form I.D.: _____________________________________________________________
Form Description: _____________________________________________________
____________________________________________________________________

Review Responsibilities: _____________________________________________
Person: _____________________________________________________________
Position: _____________________________________________________________
Department: __________________________________________________________
Retention: ____________________________________________________________
Storage Location: _____________________________________________________
Pre-Work Authorization:
Persons: ____________________________________________________________
Position: __________________________________________________________
Department: _________________________________________________________

Post Work Signoff:
Persons: ____________________________________________________________
Position: __________________________________________________________
Department: _________________________________________________________
Occupational Health

Occupational health should be treated on par with worker safety. The only difference between a worker injured on the job and one who is impaired from an occupational disease is that one occurs very rapidly, while the other occurs over a period of time. Strong performance on occupational health is accomplished by anticipating, recognizing, evaluating and controlling occupational health hazards leading to illness.

Accounting for Occupational Health is the process of:

- Treating employee’s health on par with personal safety by;
- Anticipating, recognizing, evaluating and controlling occupational health hazards leading to illness.
- Applying appropriate new technologies, with an emphasis on exposure assessment and medical surveillance.

How it works

Companies should conduct periodic exposure assessment when employees face potential overexposure to hazards (noise, dust, welding fumes, radiation, chemicals, etc.), or when deemed appropriate by a professional industrial hygienist.

An exposure assessment program includes two factors:

- Compliance with regulatory requirements for exposure monitoring; and
- Determinations on the need for exposure controls and follow-up medical monitoring to guard against lasting effects from the exposure(s).

Exposure assessment should follow validated sampling methodologies and accepted industrial hygiene practices. New technology should be applied to serve as a mechanism to modify employee behavior relative to exposure to health hazards.
Flow of the Process

In establishing a program to anticipate, recognize, evaluate and control occupational health hazards leading to illness, an operation should;

- Conduct representative qualitative and quantitative risk (exposure) assessments to characterize occupational health hazards and associated risks.
- Determine the degree of control necessary to address occupational health hazards and apply "hierarchy of control" accordingly.
- Ensure exposure assessment results are communicated to affected employees in a timely and understandable way.
- For "over exposures," determine the need for temporary or permanent health monitoring and conduct monitoring using appropriate medical standards.
- Ensure accurate protection of employee medical confidentiality for non-occupational information, e.g., HIPPA.
- Provide a mechanism to assess employee general health risks that are relevant to the occupational setting, e.g., blood pressure, blood sugar, weight, flexibility, strength, etc.
- Provide wellness education for employees including mechanisms that can be pursued to improve general health risk factors both on and off the job.
- Document occupational health management data for compliance, analysis and verification purposes and for future reference.
Workbook Materials For Module 13

Occupational health hazards and risks should be considered when assessing the task fatality prevention/risk management of Module 4. For each task, health risk should be considered equally with the safety risk and controls determined and implemented to mitigate any health effects. Exposure assessments and medical surveillance should be considered as controls.

Occupational Health Risk Assessment

**Departmental Responsibility:**

- **Department:**
- **Team Leader:**
- **Members:**

**Occupational Health Hazards and Risk Assessment:**

Hazards may include, but are not limited to: dust, welding fumes and other metallic particulates, noise, acid mists, organic vapors and solvents, ionizing and non-ionizing radiation, diesel particulates, toxic gases, asbestos soluble oil, synthetic mineral fibers, microbiological agents in mold, heat stress, illumination, ergonomic stressors, etc.

Identify all occupational health hazards for the site and relate the exposure as it presents a risk to the task assessments in the Module 4 risk register. Assure controls are identified to eliminate or mitigate any immediate or long term effect.
Health Hazard: _____________________________________________________________

Exposure Risk: ____________________________________________________________

Site Tasks Subject to Risk: ________________________________________________

Occupations Exposed to Risk: _____________________________________________

Is health hazard considered with the task risk management: Yes _____ No ______

For each task with a NO answer, return to the task safety risk register and add the health hazard. Proceed, determining the action items required eliminating or reducing to acceptable levels the health hazard exposure. In order to take advantage of developing technology, special consideration should be given to the audit frequency of the controls related to health hazards.

**Exposure Levels, Assessment and Surveillance:**
Ensure exposure assessment results are communicated to affected employees in a timely and understandable way. For “over exposures,” determine the need for temporary or permanent health monitoring and conduct monitoring using appropriate medical standards.

Health Hazard: _____________________________________________________________

Maximum Exposure Level:

Regulatory: ______________________________________________________________

Controlling Agency: ________________________________________________________

Statute or Policy: _________________________________________________________

Corporate: ________________________________________________________________

Policy: __________________________________________________________________

Measuring Frequency:

Regulatory: ______________________________________________________________

Controlling Agency: ________________________________________________________

Statute or Policy: _________________________________________________________

Corporate: ________________________________________________________________

Policy: __________________________________________________________________
Measuring Methods:

Regulatory: ________________________________
Controlling Agency: _______________________
Statute or Policy: __________________________
Corporate: ________________________________
Policy: _______________________________________ 

Instrucmentation Required:

Regulatory: ________________________________
Controlling Agency: _______________________
Statute or Policy: __________________________
Corporate: ________________________________
Policy: _______________________________________ 

Reporting Methods:

Regulatory: ________________________________
Controlling Agency: _______________________
Statute or Policy: __________________________
Corporate: ________________________________
Policy: _______________________________________ 

Over Exposure Considerations/Requirements:

Action Level: ______________________________
Additional Controls Required:

By Regulation: ______________________________
By Policy: ________________________________ 

Additional Exposure Monitoring Required:

By Regulation: ______________________________
Frequency: _________________________________
By Policy: ________________________________
Frequency: _________________________________
Medical Surveillance Required:
By Regulation: _______________________________________________________
Frequency: ___________________________________________________________
By Policy: ___________________________________________________________
Frequency: ___________________________________________________________

Employee Health and Wellness Programs:
Provide a mechanism to assess employee general health risks that are relevant to the
occupational setting, e.g., blood pressure, blood sugar, weight, flexibility, strength, etc.
along with providing wellness education for employees including mechanisms that can be
pursued to improve general health risk factors both on and off the job. Document
occupational health management data for compliance, analysis and verification purposes
and for future reference.

Employee Examinations: (Complete for each type)
Type: __________________________________________________________________
(Ex. Physical, Wellness, Vitals)
Location: __________________________________________________________________
(Consider health assessment programs at the work place)
Service Provider: ___________________________________________________________
Frequency: _______________________________________________________________
Health Risks Monitored: ___________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
Action plan for at risk findings: _____________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Health Status Documentation:
Administrator: _____________________________________________________________
Agency: _________________________________________________________________
Contact No.: _____________________________________________________________

Occupational Health
Health Enrichment and Education

Worksite Programs/Screenings:

Subject: ____________________________________________________________

Location: ___________________________________________________________

Frequency: _________________________________________________________

Administrator: ______________________________________________________

Worksite Audio/Visual Notices:

Subject: ____________________________________________________________

Display Method: _____________________________________________________

(Poster, TV Monitor, etc.)

Location: ___________________________________________________________

Corporate Sponsored Health Programs:

Program: ____________________________________________________________

(Weightwatchers, Athletic Club Memberships, Medical Facilities)

Location: ___________________________________________________________

Co-Pays: ___________________________________________________________

Frequency: _________________________________________________________
Incident Reporting and Investigation

Integrity in reporting and timely investigation are critical steps for the prevention of future occurrences. Laws and regulations result in two incident categories that mandate different types of reporting:

Incidents reportable to regulatory authorities: All safety and health incident investigations that are mandated to be reported should be promptly examined to identify means to prevent recurrence and communicated to the respective regulatory authorities.

Incidents that are non-reportable to regulatory authorities: Non-reportable safety and health incidents should also be investigated, analyzed and corrective actions developed and integrated into the safety and health management system. Such incidents include:

- Near miss events
- Property damage
- Operational, maintenance or process integrity incidents that could have a negative outcome.

Incident Reporting and Investigation is the process of:

- Understanding and reporting of recordable/reportable incidents.
- Investigating all incidents, including relevant near misses, to establish root cause, as appropriate.
- Capturing lessons learned/root cause data for management review and communication to employees.

How it works

The Role of Reporting and Investigations
Incidents cannot be investigated if they are not reported.
All personnel should be aware of what a reportable incident is within each company and as defined by regulatory requirements and company policy. All personnel should also understand the expectation to report an incident to management in a timely manner.

The quality of any root cause analysis is directly related to the quality of the incident investigation. Companies should ensure personnel are adequately trained to conduct required investigations or maintain close coordination with external resources capable of doing so. Incident investigations should focus on fact-finding—not fault-finding—with incident investigations focusing on root cause.

**Flow of the Process**

- Ensure all personnel are trained and understand the company’s and regulatory authority’s definition of a recordable/reportable incident and their obligation to comply.
- Investigate all incidents, including near misses, to a level of detail appropriate to their maximum likely outcome. All full investigations should reach root cause.
- Ensure that a sufficient percentage of company personnel, representing all company functions, are trained in effective incident investigation and root cause analysis.
- Develop or adopt a root cause analysis procedure that is integrated with the structure of the SHMS, i.e., root causes should relate to the SHMS, as a minimum.
- Capture the lessons learned and ensure they are communicated to all personnel with a need to know.
- Compile root cause data and forward to management for their review of the SHMS (See Module 19 Engineering and Construction).
Workbook Materials For Module 14

Incidents cannot be investigated if they are not reported. To prevent the recurrence of accidents and incidents, operations should ensure thorough and effective investigations take place and corrective actions are implemented. The procedure should apply to all functional areas at the site and include employees, vendors, visitors, and contractors. Incidents of consideration should include:

- Reportable health and safety accidents and events
- Near miss events
- Property damage
- Operational, maintenance or process integrity incidents that could have negative outcome. (issues that affect business continuity)

**Reporting and Investigation Guideline**

**Departmental Responsibility:**

Department: ____________________________________________________________

Team Leader: ___________________________________________________________

Members: __________________________   _____________________________
   ____________________________   _____________________________
   ____________________________   _____________________________

**Incident Classification:**

Reportable to Regulatory Agencies:

Incident:  (List each and Explain)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Near Miss Health and Safety:

Incident:  (List each and Explain)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Property Damage:
Incident: (List each and Explain)

____________________  ________________________________________
____________________  ________________________________________
____________________  ________________________________________

Operational, maintenance, or process integrity affecting:
Incident: (List each and Explain)

____________________  ________________________________________
____________________  ________________________________________
____________________  ________________________________________

**Incident Reporting:**

Reporting Policy: ______________________________________________________
________________________________________________________
Policy No.: _________________________________________________________
Incident: ___________________________________________________________
________________________________________________________

Incident Classification:
Reportable: ____________________________________________________________
Near Miss: _____________________________________________________________
Property Damage: ______________________________________________________
Business Continuity: ____________________________________________________

Agency/Department/Person(s) to Notify:
________________________________________________________
________________________________________________________
________________________________________________________
Notification Procedures: (call, form, person, etc.)
   Method: ________________________________________________________________
   Timing: ________________________________________________________________
   Responsible Person: _____________________________________________________
   Info Required: ___________________________________________________________
   _______________________________________________________________________
   _______________________________________________________________________

Incident Response:

   Incident: _______________________________________________________________
   _______________________________________________________________________
   _______________________________________________________________________

Affected Area Procedures: (refer to ERP Plan)
   Area to be preserved: Yes ______ No ______
   Area to be evacuated: Yes ______ No ______
   Release Authorization:
   Person: ________________________________________________________________
   Responsibility: __________________________________________________________
Incident Investigation:

Incident Description: _______________________________________________________

Date & Time: ______________________________________________________________

Reporting Person: __________________________________________________________

Incident Status: Reportable: Yes ______ No ______
Agency: _________________________________________________________________

Incident Classification:
  Fatality: ____________________________
  Lost Time Injury/Illness: ________________
  Medical Treatment: ______________________
  First Aid: _____________________________
  Illness: _______________________________
  Property Damage: ______________________
  Process Loss: __________________________

Incident Consequence:
  Actual Loss or Harm: _______________________
  Potential Loss or Harm: ___________________

Level of Consequence:
  Catastrophic: ___________________________
  Major: __________________________________
  Moderate: ______________________________
  Minor: __________________________________
  Insignificant: ____________________________
Personnel Required:

Affected Person(s): _________________________________________________
Witnesses: _________________________________________________________
Supervisor: __________________________________________________________
Health & Safety Rep: _________________________________________________
Labor Rep: __________________________________________________________
EMS Responder: _____________________________________________________
Department Head/Rep: _______________________________________________
Other Management: _________________________________________________
____________________________________________________________________
____________________________________________________________________

Review Committee: _________________________________________________
____________________________________________________________________
____________________________________________________________________

Management Review:

Title/Position: ______________________________________________________
Title/Position: ______________________________________________________
Title/Position: ______________________________________________________
Title/Position: ______________________________________________________

Pertinent Incident Information:
(Should consider but not be limited to)

Description of Incident: _____________________________________________
____________________________________________________________________
____________________________________________________________________
Identify Sources of Evidence: _________________________________________
____________________________________________________________________
____________________________________________________________________
Persons to Interview: _________________________________________________

____________________________________________________________________

____________________________________________________________________

Vehicles/Equipment Involved: __________________________________________

____________________________________________________________________

____________________________________________________________________

Documents/Records to Review: ________________________________________

____________________________________________________________________

____________________________________________________________________

Witness Interviews:
Person: _____________________________________________________________
Job Classification: ____________________________________________________
Job at time of incident: ________________________________________________
Interview Location: ____________________________________________________
Interviewer: __________________________________________________________
Date/Time: __________________________________________________________
Statement: __________________________________________________________
Attach Pictures or Drawings: ___________________________________________

Incident Causes:
Type of Contact: _____________________________________________________
Existing Acts and Conditions: __________________________________________
____________________________________________________________________
____________________________________________________________________
Basic cause allowing acts and conditions to exist: _________________________
(Complete for each) __________________________________________________
____________________________________________________________________
____________________________________________________________________
Notifications:

Timing: Immediate ___ During Investigation ____ Investigation Complete ___
Information: ____________________________________________________________
Responsible Person: _____________________________________________________
    Deliver to: _____________________________________________________________
Methods: ________________________________________________________________
Schedule: ______________________________________________________________
Action: _________________________________________________________________
    ____________________________________________________________________
Temporary/Permanent: ________________________________________________
Timing: ________________________________________________________________
Responsible Person(s): _________________________________________________
Audit for Adequacy: _____________________________________________________
Schedule: ______________________________________________________________
Behavior Optimization

Human behavior is an integral part of mine safety and health. Individuals often take unnecessary shortcuts or expose themselves to unnecessary risks. Mining companies that work to reduce exposures to risk by encouraging their employees to do the right thing generally have fewer and less severe injuries.

Behavior Optimization by Minimizing Unsafe Behavior is the process of:

- Educating all employees on the causes of safe and unsafe behavior.
- Developing an observation and feedback process.
- Emphasizing how to control behavior and intervene with co-workers.

How it works

Unsafe behaviors are a key contributing factor in many mining incidents. However, behavior is a consequence and not a cause. We now know attitudes and behaviors are both measurable and manageable.

It is important to optimize behavior because carefully designed and effectively implemented work procedures that are not complied with still have substantial potential for increased injury and incidents.

What We Know about Behavior

Most experts believe human behavior (anything that is an observable action) is primarily controlled by the “ABC model” of Activator—Behavior—Consequence.

Activators: People behave the way they do because they are activated to do so. Activators can be someone’s voice, a phone ringing, a written to do list, memory, training, etc.
Activators can be either conscious or subconscious.
Behavior is a reflection of our knowledge, training and competence and can be intentional or unintentional. Individuals are most often motivated to repeat a behavior, e.g., driving within the speed limits, by the consequences or enforcements experienced from previous behaviors.

Behaviors are also affected by people’s attitudes about risk. This knowledge helps us to minimize unsafe behavior by making workers aware of why they behave the way they do, what is a safe and unsafe behavior, and what can be done to minimize unsafe and encourage safe behaviors.

**Flow of the Process**

- Educate employees regarding the causes of safe and unsafe behavior, e.g., the ABC model, how to control their own behavior and when and how to intervene with co-workers.
- Develop a workplace observation and feedback process. The process should be confidential and voluntary, but collect observation data for analysis.
- Apply the ABC model beyond observation and feedback to include an emphasis on general safety and health activators and consequences.
- Integrate behavior optimization with related SHMS Modules: 12 (Work Procedures), 14 (Incident reporting), 8 (Collaboration and Communication), 7 (Culture Enhancement), etc.
- Ensure adequate focus on the quality of observations and feedback.
Workbook Materials For Module 15

Behavior Optimization is a system for maximizing positive actions and minimizing negative or unsafe actions.

Optimizing behavior to reduce employee exposure to risk and improve safety requires strong leadership, management commitment, and a positive safety culture as prerequisites.

Behavior Optimization Techniques

Employee Education and Training:
Responsible Department: ________________________________
Team Leader: __________________________________________
Members: _______________________________________________
Outside Resources: _______________________________________

Participating Employees/Work Groups: ______________________

Training Topics: (e.g. the ABC model, how to control one’s own behavior, when to intervene)

Training Schedule:

Behavior Optimization
Behavior Observation

Behavior observation and feedback is a structured process that commonly relies on trained observer's conducting observations of their co-workers as they perform a task. The focus is on reinforcing the co-workers safe behaviors and/or encouraging them to avoid at-risk behaviors in the future.

**Observation Planning:**

Job or Task: __________________________________________________________
Observer: _____________________________________________________________
SOP/SJP Available: _____________________________________________________
Identified Significant Risk: ________________________________________________
_______________________________________________________________________
_______________________________________________________________________
Implemented Controls: ___________________________________________________
_______________________________________________________________________
_______________________________________________________________________
Observation Plan: _______________________________________________________
_______________________________________________________________________
_______________________________________________________________________
Scheduled Date: _________________________________________________________
Behavior Observation (cont.)

Observing:

Date: _____________________________________________________________
Employee Classification: ____________________________________________
Training Delivered: _______________________________________________

Performance Observation:
  Was Safe Behavior Practiced: Yes ______ No ______
  Comments: ______________________________________________________
  ________________________________________________________________
  ________________________________________________________________
  Was Safe Behavior Difficult: Yes ______ No ______
  Comments: ______________________________________________________
  ________________________________________________________________
  ________________________________________________________________
  Action Needed: __________________________________________________
  ________________________________________________________________
  Was Safe Behavior Impossible: Yes ______ No ______
  Comments: ______________________________________________________
  ________________________________________________________________
  ________________________________________________________________
  Action Needed: __________________________________________________
  ________________________________________________________________

Feedback:
  During Observation: ______________________________________________
  ________________________________________________________________
  After Observation: ______________________________________________
  ________________________________________________________________
  Additional Planned: ______________________________________________
  ________________________________________________________________
  Schedule: _______________________________________________________

Behavior Optimization
Behavior Observation (cont.)

Action Required:

Positive Reinforcement: __________________________________________________
Timing: _________________________________________________________________
Method: _________________________________________________________________
Responsible Person: _______________________________________________________

Negative Reinforcement: __________________________________________________
Timing: _________________________________________________________________
Method: _________________________________________________________________
Responsible Person: _______________________________________________________

Corrective Discipline: ____________________________________________________
Condition History: _______________________________________________________
Timing: _________________________________________________________________
Method: _________________________________________________________________
Responsible Person: _______________________________________________________

Change of Plan/Policy: _____________________________________________________
Plan/Policy: _____________________________________________________________
Reason for Change: ______________________________________________________
Timing: _________________________________________________________________
Method: _________________________________________________________________
Responsible Person: _______________________________________________________

Change of SOP/SJP: _________________________________________________________
SOP/SJP: _________________________________________________________________
Reason for Change: ______________________________________________________
Timing: _________________________________________________________________
Method: _________________________________________________________________
Responsible Person: _______________________________________________________

Behavior Optimization
Non-conformance with statutory and regulatory regulations can have a significant effect on an operation. Regulatory agencies can enforce work stoppages and levy substantial monetary penalties. While significant efforts are devoted to maintaining compliance, the resources required to address a pattern of non-conformance can become even more substantial and at the same time, distract from the positive and proactive efforts.

Safety and Health Management Assurance is the process of:

- Establishing a procedure to assess compliance with applicable legal requirements.
- Maintaining current information.
- Developing an improvement cycle that is integrated with the company’s safety and health management system.

How it works

Operations should be in full compliance with statutory and regulatory requirements to ensure value-added regulations are leveraged. This can be best accomplished by integrating an improvement cycle within the company’s safety and health management system and applying the Plan-Do-Check-Act process to each regulation. Each requirement should have someone responsible for ensuring the requirements have been met and are working as designed on an ongoing basis. This feedback is essential for consistent compliance.

Flow of the Process

- Establish a procedure to assess compliance with applicable legal and other S&H management requirements and keep this information current.
- Compliance with regulations should be managed through the Plan-Do-Check-Act improvement cycle and should be integrated with the company SHMS.
Workbook Materials For Module 16

Continued compliance toward meeting the 0:50:5 goals can be achieved by developing processes to measure performance against applicable legal requirements and by developing an improvement cycle that is integrated with the company’s safety and health management system.

Compliance Assessment

Measurement Tools and Corrective Planning:

Violations/Citations:
Record and trend violation history identifying patterns of non-compliance

- Period: _______________________________________________________________
- Standard: _____________________________________________________________
- Number Issued: _______________________________________________________
- Compliant with Expectations: Yes  ______  No  __________

Inspections:
Identify hazards through regular examination of the workplace and equipment

- Inspection Type:
  - Pre-task Workplace Exam: ____________________________________________
  - Pre-Op Equipment Inspection: _________________________________________
  - General Inspection: ___________________________________________________
  - Person Inspecting: ____________________________________________________
  - Date: __________________________________________________________________
  - Description of Condition: ________________________________________________

Compliant with Regulation: Yes  ______  No  ________
Compliant with Policy: Yes  ______  No  ________
**Evaluations and Audits**

Establish an effective system to periodically evaluate compliance to applicable legal and company policy requirements.

<table>
<thead>
<tr>
<th>Audit Type</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Internal</td>
<td>_____________________________________________________________________</td>
</tr>
<tr>
<td>Third Party</td>
<td>_____________________________________________________________________</td>
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</tbody>
</table>

| Responsible Department | _____________________________________________________________________ |
| Audit Leader          | _____________________________________________________________________ |

<table>
<thead>
<tr>
<th>Audit Team</th>
<th>Person</th>
<th>Department</th>
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</table>

| Management Review    | _____________________________________________________________________ |
| Audit Objective      | _____________________________________________________________________ |

| Schedule/Frequency  | _____________________________________________________________________ |
|                     | _____________________________________________________________________ |

| Audit Results       | _____________________________________________________________________ |

Compliant with Regulation: Yes  _____  No  ______
Compliant with Policy:  Yes  _____  No  ______
If assessment results are non-compliant with expectations in any measurement category, improvement efforts should be initiated using the PLAN-DO-CHECK-ACT process.

**Improvement Management Process:**

<table>
<thead>
<tr>
<th>Responsibilities</th>
<th>Person</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLAN</strong> Corrective Action Plan:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DO</strong> Plan Implementation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHECK</strong> Evaluation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ACT</strong> Action Items:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Corrective Action Plan:
- Findings of Non-Compliant Issues: 
  ____________________________________________________________
  _______________________________________________________________________
- Targets to reduce non-conformities:
  ____________________________________________________________
  _______________________________________________________________________
- Plan to Implement:
  ____________________________________________________________
  _______________________________________________________________________
- Schedule: ____________________________
- Crews/Employees: ____________________________

Plan Implementation:
- Assigned Responsibilities:
  ____________________________________________________________
  _______________________________________________________________________
- Schedule: ____________________________
- Equipment/Materials:
  ____________________________________________________________
  _______________________________________________________________________
- Crews/Employees: ____________________________
- Follow Up/Feedback:
  ____________________________________________________________
  _______________________________________________________________________
Evaluation:

Observation Findings: ________________________________________________
Feedback Discussion: ________________________________________________
Schedule: ___________________________________________________________
Participants: _________________________________________________________
Performance Reassessment Results: _________________________________
Compliant with Expectations: Yes _______ No ________

Action Items:

What Worked: _______________________________________________________
____________________________________________________________________
Actions to Improve: _________________________________________________
____________________________________________________________________
Roll Out to Other Areas: ______________________________________________
____________________________________________________________________
What Didn’t Work: ____________________________________________________
____________________________________________________________________
Where They Needed: Yes _______ No _________
If Yes, Actions to Improve: _____________________________________________
____________________________________________________________________
If No, Discontinue: __________________________________________________
____________________________________________________________________
Other Action Required: ________________________________________________
____________________________________________________________________
Assurance

Similar to the statutory and regulatory assurance process of Module 16, a system should be in place to provide stakeholders assurance that the safety and health management system is effective and adequate for the operation. The plan should be reviewed periodically taking into account changes in operations, personnel, hazards and risks, and the environment. Any non-conformities should be addressed in a timely manner.

Assurance is the process of:

- Implementing a process to assure internal and external stakeholders of the adequate structure, fitness and effectiveness of the safety and health management system.
- Ensuring management is using assurance information to determine how to improve the safety and health management system.
- Providing for corrective action and continual improvement based on senior management direction.

How it works

It is necessary to periodically assess implementation of and conformance with the expectations of the safety and health management system (SHMS) to assure an adequate structure exists to analyze the fitness and effectiveness of the SHMS. This process should be managed by senior management and may involve both internal and external audits and assessments. Where nonconformance is identified, corrective action should be taken to ensure continual improvement in both SHMS effectiveness and the resulting safety and health performance.
Flow of the Process

- Develop a process to measure system and S&H management performance through the use of lagging and leading indicators.
- Ensure senior management participates in the performance assurance process to optimize transparency and ensure there are adequate resources to facilitate system improvement.
- Non-conformance against the SHMS should be addressed with appropriate actions to correct the non-conformance.
- Internal audits should be scheduled in advance and conducted by personnel with adequate experience and knowledge of SHMS audit methods and processes.
- Routine audits (and periodic external audits) should be conducted by a competent third party at an interval sufficient to ensure continuous improvement.
Workbook Materials For Module 17

Health & Safety Management Plan - Auditing & Evaluation

It is critical to periodically measure performance against the SHMS goals and objectives. Evaluations can be completed through both internal and third party audits. An audit can include one section of the plan or a review of the entire system. It is also critical that the results of the audits are reviewed by management and where there are non-conformities, action plans are developed to better address any deficiencies.

Auditing and Evaluation Process:

Audit Type:

Internal: ____________________________________________________________

External: (Third Party) _______________________________________________

Organization: _____________________________________________________

Contact: _________________________________________________________

Responsibilities:

Department: _________________________________________________________

Senior Manager: _____________________ Title: __________________________

Audit Team Person Department Position
Planning - Lead ________________________ ______________________

Audit - Lead ________________________ ______________________

Reporting - Lead ________________________ ______________________

Action Plan - Lead ________________________ ______________________

Schedule: ______________________________________________________________________

HSMP Section or Overall Review: ________________________________________________
Audit Measurements against Standards and Goals:
Performance measurements should include but not be limited to the following categories

Plan Objectives: ________________________________________________
_______________________________________________________________________
_______________________________________________________________________
Data and Statistics: ________________________________________________
(Quantitative) ________________________________________________
Compliance & Behavior: ____________________________________________
(Qualitative) ________________________________________________
Effectiveness of Controls: __________________________________________
_______________________________________________________________________
Proactive Measures of Conformance: ________________________________
_______________________________________________________________________
Reactive Measures of Monitoring Incidents: __________________________
_______________________________________________________________________
Reporting of Non-Conformance & Action Taken: ________________________
_______________________________________________________________________

Audit Reporting and Document Maintenance:
Review and Sign Off: ______________________________________________
Title: ____________________ Title: ____________________
Title: ____________________ Title: ____________________
Distribution:
Management: ________________________________________________
Title: ____________________ Title: ____________________
Title: ____________________ Title: ____________________
Departments: ________________________________________________
_______________________________________________________________________

Assurance
Follow Up Actions: (Plan-Do-Check-Act, Module 16)

Audit Non Conformities:

Finding: ____________________________________________________________
Department: _________________________________________________________
Responsible Person: _________________________________________________

Action Plan Responsibility:

Department: _________________________________________________________
Responsible Person: _________________________________________________

Tracking Tool: _______________________________________________________
Schedule: ___________________________________________________________

Continuous Improvement Items:

Department: _________________________________________________________
Responsible Person: _________________________________________________

Tracking Tool: _______________________________________________________
Schedule: ___________________________________________________________
Documentation and Information Management

Documentation and Information Management is the process of:

- Collecting appropriate safety and health data for leading and lagging performance metrics.
- Establishing and maintaining appropriate safety and health management records.

How it works

Companies should establish and maintain appropriate safety and health management records as designated by senior management that include, among others:

- Safety and health policy
- Objectives
- Responsibilities
- Audit investigations
- Management reviews

The type and volume of records should reflect the size, complexity and risks of the organization. The safety and health management systems should identify those documents that require retention and maintenance.

Documentation should be developed carefully so as not to deflect resources from proactive safety and health management activities.
Flow of the Process

- Develop a documentation retention process that balances need to retain with the need to perform and improve.
- Ensure records are legible and identifiable and linked to the activities from which they derive. They should be readily retrievable and physically protected.
- Retain documents based on regulatory requirements as well as company document retention policy, as appropriate.
- Determine performance trends by looking for common or significant events and patterns in root causes, inspection records, audit action items, behavior observations, etc.
Workbook Materials For Module 18

Safety & Health Data & Records

Responsible Department: ____________________________________________________

Team Leader: ________________________  ___________________________

Members:  ____________________________________________________________

________________________________________

________________________________________

Document Storage and Retention:

Document Number/Rev: __________________________________________________

Title:  ___________________________________________________________________

Department:  ____________________________________________________________

Subject:  ________________________________________________________________

Category:  ______________________________________________________________

Regulatory Required:  _____________________________________________________

Agency:  ________________________________________________________________

Corporate Legal Consideration:  ____________________________________________

Storage Location:

Electronic:  _____________________________________________________________

Hard Copy:  _____________________________________________________________

Access Clearance: _______________________________________________________

Persons/Positions:  _______________________________________________________

Departments:  ___________________________________________________________
Document Retention:

Period: _____________________________________________________________

Regulatory Requirement: Yes ______ No ______
Agency: ____________________________________________________________

Archive: Yes ______ No ______
Location: ____________________________________________________________

Destroy: Yes ______ No ______
Method: ____________________________________________________________
Engineering and Construction

When planning for engineering and construction projects, the standards of the company’s SHMS should be incorporated from the beginning. Any health and safety impacts resulting from projects on site should be considered and action plans developed.

Engineering and Construction is the process of:

- Designing, procuring, constructing and commissioning new mines, facilities and modifications to existing facilities to promote good safety and health performance throughout the operational life of the facility.
- Integrating the “hierarchy of controls” and good design principles to minimize new mine, facility or modification risk to the lowest level reasonably achievable.

How it works

New operations and modifications to existing facilities should be designed, procured, constructed and commissioned to promote good safety and health performance throughout the operational life of the operation, mine and/or processing facility by applying recognized engineering standards, procedures and management systems.

Facilities should be operated and maintained within the approved design to ensure performance and compliance with all applicable laws and regulations. This also means ensuring the technical standards for design, construction and commissioning adhere to industry codes and standards and regulatory requirements.

Safety and health management requirements should be incorporated as a part of all relevant design review for construction, operation and maintenance for new fixed installations, mobile equipment and systems.
Where feasible, companies should work with original equipment manufacturers (OEM) to ensure purchased equipment and systems are designed to be as safe as practicable. Engineers and designers should be aware of the company’s safety and health expectations, standards and management system in advance of completing design or engineering work.

**Flow of the Process**

- Safety and health management, operations and maintenance expertise are integrated into project planning processes from the inception.
- Where engineering and design codes and standards and/or regulatory compliance are inadequate or absent, management should develop its own with external validation.
- Design and construction for any project with safety and health management considerations should target regulatory as the minimal allowable risk.
- Deviations from standard and accepted design are reviewed and approved by senior management. Variances are documented with adequate justification details.
- The S&H management aspects of construction work conducted on company property should conform to the company’s SHMS standards and expectations.
- Pre-start up safety review should be conducted on all new operations, mines, processing facilities, major mobile and fixed equipment, and control systems. See Module 4 for details.
- Ensure that Engineering and Construction are fully integrated with Module 4 and 20.
Workbook Materials For Module 19

Engineering/Construction Project

Responsible Department: ________________________________

Team Leader: ____________________________

Members: ____________________________

Safety & Health Responsibility: ________________________________

Project Description: _______________________________________

___________________________________________________________________________

___________________________________________________________________________

Project Source:

In House: ________________________________

Contractor: ________________________________

OEM Supplier: ________________________________

Site Location: ________________________________

Department: ________________________________

Supervisor: ________________________________

Risk Register Tasks Associated: ________________________________

(Module 4)  __________________________________________________________

Mitigating Effect on Task Risk: Yes _____ No ______

Risk Ranking Prior: ________________________________

Risk Ranking After: ________________________________
### Industry Code or Regulatory Standard Compliance Required

- **Yes** [ ]
- **No** [ ]

**Agency:** ______________________________________________________________

**Standard:** ____________________________________________________________

**Code or Standard meets minimum requirement of site compliance:** Yes [ ] No [ ]

### Company Policy Compliance Required

- **Yes** [ ]
- **No** [ ]

**Policy:** _______________________________________________________________

**Deviations Required:** __________________________________________________

**Equivalent Controls Applied:** ____________________________________________

### Approvals and Sign Offs

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### Pre-Start Safety Review

**Review Team:**

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### Inspection Date

__________________________________________________________

### Inspection Plan

__________________________________________________________

### Findings

__________________________________________________________

### Actions Needed

__________________________________________________________
Contractor Management and Purchasing

Contractors play a significant role in safety and health management at facilities whether there are contract miners or contractors performing project work. They often face very similar, if not more significant, risk than do company employees. If contractors do not receive the appropriate instruction and direction to work safely, they can introduce new hazards to the workplace that put themselves and company workers at risk.

Contractor Management and Purchasing is the process of:

- Ensuring all company-sponsored project proposals include safety and health management criteria or requirements.
- Pre-screening contractors for acceptable safety and health management experience, qualifications and procedures.
- Ensuring all contractors and third parties are aware of your organization’s safety and health management requirements and expectations.

How it works

Selection and bidding: Contractor selection should be conducted using a screening process to ensure adequate safety and health management competencies and experience. Contractors should know the company’s safety and health management requirements in the bidding process.

Orientation and training: Once selected, contractors, vendors and visitors should be provided adequate orientation and any ancillary training necessary to understand site rules, safe work and emergency procedures, communication protocols or other site requirements.
Enforcement: Company employees should be authorized to question the safety practices and behaviors of any contractor or other third party working on site.

Procurement policy: In addition, companies should develop a safe procurement policy in which purchases of fixed or mobile equipment include coordination with the vendor to ensure the equipment comes engineered with all necessary safety features and controls, e.g., noise control on stationary motors and pumps, maintenance access points on mobile equipment, diesel exhaust controls, etc.

Flow of the Process

- Ensure all company-sponsored project proposals and/or requests for proposals include safety and health management criteria or requirements.
- Pre-screen all operational and project contractors for acceptable S&H management experience and qualifications.
- Ensure contractors notify the company of the introduction of tools, equipment, materials, chemicals or work processes that could be a risk to contractors and/or company personnel.
- Ensure all contractors and third parties are aware of S&H management requirements and expectations including emergency response plans and reporting obligations.
- Integrate a safe procurement process into the company’s risk management function, e.g., Module 4 Fatality Prevention / Risk Management.
Workbook Materials For Module 20

Request for Proposals - Safety & Health Provisions

Responsible Department: ________________________________
Contract Administrator: ________________________________
Review Committee:
  Procurement: _______________________________________
  Health & Safety: _____________________________________
  Operations: _________________________________________
  Engineering: ________________________________________
  Corporate: _________________________________________
Final Sign Off: _______________________________________

Safety and Health Information to Provide Prospective Bidders:
All RFP’s should supply prospective contractors the regulatory and company standards to
which they will be required to comply while on site.

Scope of Work – Requirements:
SOW Statement: _______________________________________
Inherent Hazards of the Job: _____________________________
Inherent Hazards of the Environment: ____________________
Regulatory Requirements:

Governing Agencies: __________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Contractor I.D.: _____________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Certifications: _______________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Training: _________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Compliance Areas: _________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Company Requirements:

Contractor I.D.: _____________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Certifications: _______________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Training: _________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Site H&S Policies: ___________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Other: _________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Safety and Health Information to Request from Prospective Bidders:
A contractor’s H&S programs and compliance should weigh heavily in the evaluation and award process. In responding to a RFP, bidders should be expected to provide at a minimum.

Regulatory Compliance:
Contractor I.D.: ______________________________________________________
____________________________________________________________________
Certifications: ________________________________________________________
____________________________________________________________________
Training Completed: __________________________________________________
____________________________________________________________________

RFP Standard/Policy Compliance:
Contractor I.D.: ______________________________________________________
____________________________________________________________________
Certifications: ________________________________________________________
____________________________________________________________________
Training: ____________________________________________________________
____________________________________________________________________
Site H&S Policies: _____________________________________________________
____________________________________________________________________
Other: ________________________________________________________________
____________________________________________________________________

Company Safety and Health Plans:
Training: _____________________________________________________________
____________________________________________________________________
Hazard Identification & Risk Assessments Procedures: _____________________
____________________________________________________________________
Safety & Health Management Programs: _________________________________
____________________________________________________________________
Worksite Inspection Practices: _________________________________________
Environmental Management: ___________________________________________
Community Relations: ______________________________________________________
_______________________________________________________________________

Injury and Incident Statistics: ____________________________________________
_______________________________________________________________________

RFP Project Specific:
  High Level Risk Assessment: ___________________________________________
  Work Methodology Statement: __________________________________________
  Health & Safety Management Plan: ______________________________________
  Equipment and Tools Required: _________________________________________
  PPE Requirements: ___________________________________________________
_______________________________________________________________________

Contractor Personnel:
  Administrator: _________________________________________________________
  Responsible for H&S: __________________________________________________
  Site Supervision: _____________________________________________________
Post-Award – Health & Safety Planning & Considerations

Pre-Commencement and Mobilization

Authorized Personnel:

Supervisors: _________________________________________________________

Workforce: __________________________________________________________

Site Entry Requirements:

Employee Clearances: ________________________________________________

____________________________________________________________________

Training, Certifications, Licenses: ________________________________

By Regulation: ____________________________________________________

By Company Standard: ____________________________________________

Final Risk Assessments:

Identified Risks/Hazards: ______________________________________________

Risk Ranking: ______________________________________________________

Persons Exposed: __________________________________________________

____________________________________________________________________

Mitigating Controls: ________________________________________________

____________________________________________________________________

Administrative Controls:

Safe Job Procedures: ________________________________________________

_________________________________________________________________

Work Place Inspections: ____________________________________________

_________________________________________________________________

Work Permits: ______________________________________________________

_________________________________________________________________

Residual Risk after Controls: __________________________________________

Audit Process: ______________________________________________________

____________________________________________________________________
Equipment and Materials for the Job: ______________________________________

Site Personnel Exposure to Risk: ______________________________________

Licenses/Permits Required: ______________________________________

Safeguards Required by Site: ______________________________________

Inspections and Reports: ______________________________________

Site Communication and Emergency Notice Procedures: ______________________

Kick Off Meeting:
Date: _______________________________________________________________
Attendees: ___________________________________________________________

Company: _______________________________________________________
Contractor: _______________________________________________________
Agenda: ___________________________________________________________

Contractor Safety & Health Management

Workplace Inspections:
As Provided by Contractor:
Daily Task Inspections: _____________________________________________
Equipment Pre-Ops: ________________________________________________

Contractor/Company Cooperative:
Contractor Representative: __________________________________________
Company Representative: ___________________________________________
Schedule/Frequency: ________________________________________________

Contractor Auditing: (certify conformance with Health & Safety management plans)

Company Team:
_____________________________________________________________________
_____________________________________________________________________
Contractor Team:
_____________________________________________________________________
_____________________________________________________________________
Audit Subjects:
_____________________________________________________________________
Audit Schedule:
_____________________________________________________________________

Contractor Reporting to the Health and Safety Responsible Person:

New Employees: _________________________________________________________
Training Updates: _______________________________________________________
Change of Equipment or Materials: ________________________________________
Accidents and Near Misses: ______________________________________________
Revisions to Hazards and Risk: ___________________________________________
Changes to Risk Assessment: _____________________________________________
Daily and Workplace Inspection Reports: _________________________________

Contractor Meetings:

Contractor H&S Representative: _________________________________________
Company H&S Representative: ___________________________________________
Meeting Schedule: ______________________________________________________
Topics: ___________________________________________________________________