

Name: _____

CORESafety Safety and Health Management

My Position

The importance of safety and health management to achieving 0:50:5.

- I fully agree, just need to get it done
- Not sure I agree, need more info/time
- I disagree, need to talk to my colleagues

The NMA version of Safety and health management is sufficient to achieve 0:50:5.

- I fully agree, just need to get it done
- Not sure I agree, need more info/time
- I disagree, need to talk to my colleagues

The NMA version of safety and health management clearly goes beyond the requirements of MSHA/OSHA.

- I fully agree, just need to get it done
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NMA SHMS Module Expectations

Our Status

Fatality Prevention and Risk Management:

- Maintain effective informal and formal hazard identification procedures, e.g., inspections, worker feedback, task observations, pre-task assessments, etc.
- Develop or adopt a personal & pre-task (PPT) risk assessment tool [Level 1] and require workers who are at-risk in their job duties to utilize the tool before job tasks.
- Develop or adopt systematic job & task (SJT) risk assessment tools [Level 2] for routine and repeatable non-routine work. Develop documentation and train accordingly.
- Apply formal, process & equipment (FPE) risk assessment tools [Level 3] to the mining process, equipment, including development, operations, maintenance and reclamation.
- Define and document the acceptable level of risk through a risk matrix (likelihood & consequences), or adopt the CORESafety generic risk matrix as a minimum guideline.
- Ensure risks are evaluated by the appropriate level of management, consistent with the significance of the risk. Senior management should be included when assessing major risks and variances.
- Document the company's risk management approach

- Not doing this, but recognize the need
- Not doing this, but working on it
- Doing this, or something equivalent

for all high-risk (low likelihood, high consequence) work activities and ensure consistent application of those protocols.

- Establish a management policy that applies the hierarchy of controls to hazard control opportunities and obligations. The policy should include specific criteria for variances.
- Where PPE is permitted to be used in lieu of more comprehensive controls, wearers should be trained on specific uses, proper usage and protection limitations.
- Verify that controls maintain their effectiveness or are modified should circumstances change over time. Include control verification in safety and health audit criteria.
- Document risk management decisions for tracking and verification purposes, and for future reference.
- Develop and maintain an up-to-date registry of site-specific high risk activities.
- Assess high risk work activities using risk assessment tools including 'systematic job & task', 'process & equipment' and 'personal'.
- Develop and/or adopt site-level high risk procedures to maintain risk at as low a level as practicable.
- Verify that all affected employees are educated, trained and competent relative to the high risk procedures.
- Regularly audit high risk procedures to ensure full compliance and effectiveness.
- Ensure internal reporting of all high risk procedure-activity near miss and injury incidents and conduct incident investigation and root cause analysis, as appropriate.

Action needed:

Change Management:

- 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 provisions to verify that change management actions have been completed

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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.
- Pre-start up safety reviews should be conducted on all new operations, expansions, processing facilities, major mobile and fixed equipment and control systems.
- Ensure that change management is fully integrated with Fatality Prevention & Risk Management.

Action needed:

Engineering and Construction:

- 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.

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Action needed:

Safe Work Procedures and Permits:

- 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.

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- 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 program 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 all contractors and vendors are trained on and comply with the work permit and safe work procedure requirements.

Action needed:

Training and Competence:

- Conduct training needs assessment for all jobs. Training programs should define the skill level to be acquired and demonstrated, frequency, and requirements for competency.
- All new or transferred employees, visitor, contractors and vendors receive site- based safety and health orientation before being permitted to work onsite.
- Initial, on-going and periodic refresher training is conducted to ensure job and regulatory requirements.
- Combine discretionary training with regulatory training (MSHA, OSHA) whenever possible, e.g., new employee/ miner training with company orientation.
- Where on-the-job training is conducted, the instructor should follow standards for knowledge transfer and adhere to standard operating procedure where they exist.
- Ensure contractors, visitors and vendors receive appropriate training to provide adequate worker protection for both the company and their third-party partners.

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- Provide train-the-trainer development to those who develop and deliver company S&H management training.

Action needed:

Occupational Health:

- 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 the "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 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.

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Action needed:

Behavior Optimization:

- 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.

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- Apply the ABC model beyond observation and feedback to include an emphasis on general safety and health activators and consequences.
- Ensure adequate focus on the quality of observations and feedback.

Action needed:

Contractor Management and Purchasing:

- 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.

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Action needed:

Incident Reporting and Investigation:

- Ensure all personnel are trained and understand the company's and regulatory authority 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.

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