

Gap Analysis: Safety & Health Management

Name _____

CORESafety Safety & Health Management	My Position
The importance of safety and health management to achieving 0:50:5.	<input type="checkbox"/> I fully agree, just need to get it done <input type="checkbox"/> Not sure I agree, need more info/time <input type="checkbox"/> I disagree, need to talk to my colleagues
The NMA version of Safety and health management is sufficient to achieve 0:50:5.	<input type="checkbox"/> I fully agree, just need to get it done <input type="checkbox"/> Not sure I agree, need more info/time <input type="checkbox"/> I disagree, need to talk to my colleagues
The NMA version of safety and health management clearly goes beyond the requirements of MSHA/OSHA.	<input type="checkbox"/> I fully agree, just need to get it done <input type="checkbox"/> Not sure I agree, need more info/time <input type="checkbox"/> I disagree, need to talk to my colleagues
NMA SHMS Module Expectations	Our Status
<p>Fatality Prevention & Risk Management:</p> <ul style="list-style-type: none"> ○ 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 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. 	<input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent

<ul style="list-style-type: none"> ○ 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:	
<p>Change Management:</p> <ul style="list-style-type: none"> ○ 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 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. 	<ul style="list-style-type: none"> <input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent
Action needed:	
<p>Engineering & Construction:</p> <ul style="list-style-type: none"> ○ 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. 	<ul style="list-style-type: none"> <input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent
Action needed:	
<p>Safe Work Procedures & Permits:</p> <ul style="list-style-type: none"> ○ 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 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. 	<ul style="list-style-type: none"> <input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent
Action needed:	
<p>Training & Competence:</p> <ul style="list-style-type: none"> ○ Conduct training needs assessment for all jobs. Training programs should define the skill level to be acquired and demonstrated, frequency, and requirements for competency. 	<ul style="list-style-type: none"> <input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent

<ul style="list-style-type: none"> ○ 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. ○ Provide train-the-trainer development to those who develop and deliver company S&H management training. 	
Action needed:	
<p>Occupational Health:</p> <ul style="list-style-type: none"> ○ 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. 	<ul style="list-style-type: none"> <input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent
Action needed:	
<p>Behavior Optimization:</p> <ul style="list-style-type: none"> ○ 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. ○ Ensure adequate focus on the quality of observations and feedback. 	<ul style="list-style-type: none"> <input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent
Action needed:	
<p>Contractor Management & Purchasing:</p> <ul style="list-style-type: none"> ○ 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. 	<ul style="list-style-type: none"> <input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent
Action needed:	
<p>Incident Reporting & Investigation:</p> <ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> <input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent

<p>their maximum likely outcome. All full investigations should reach root cause.</p> <ul style="list-style-type: none"> ○ 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. 	
<p>Action needed:</p>	
<p>Emergency Management:</p> <ul style="list-style-type: none"> ○ Develop and maintain written, site-specific emergency response plans. Plans should be based on a critical assessment of potential emergencies scenarios and their impacts. ○ Ensure plans are communicated, trained and drilled against at an appropriate interval. All potentially affected personnel should be aware of the role and responsibilities in an emergency. ○ Plans should include an assessment and acquisition of adequate foreseeable emergency resources, e.g., warning devices, first aid supplies, rescue equipment, communication aids. ○ Plans should be communicated to external stakeholders as appropriate. ○ Emergency response drills should be conducted with sufficient frequency and intent to assure confidence in the event of a real emergency. ○ Maintain adequate internal/external first responder capabilities in relation to operations' size, risk and isolation. 	<ul style="list-style-type: none"> <input type="checkbox"/> Not doing this, but recognize the need <input type="checkbox"/> Not doing this, but working on it <input type="checkbox"/> Doing this, or something equivalent
<p>Action needed:</p>	

