



HEALTH AND SAFETY TOOLS – MINING SECTOR



May 2017

H&S TOOLS

AGENDA

- Safety Share
- Tools
 - OHSAS 18001
 - TSM
 - VFLs
 - 5 Point Safety System
 - Take Five
 - PASS
 - ICAM
 - Intelex
- Audits
 - Internal
 - 3rd Party

Towards Sustainable Mining
Vers le développement minier durable

TAKE 5
SAFETY FIRST
ZEROHARM

POSITIVE ATTITUDE
PASS
SAFETY SYSTEM

Incident
Cause
Analysis
Method
ICAM

INTELEX

HUDBAY

SAFETY SHARE



SAFETY SHARES

A CULTURAL PRACTICE

- Common practice throughout the mining industry
- Start each meeting with a safety share
 - To avoid pushing, shoving and other aggressive behaviour resulting in slips, trips and falls while in transit among a large number of people, transfer the basic principles of the road to the sidewalk, subway or train platforms and stairs. You will still arrive at your destination, but you should arrive safely if you wait your turn, don't stop suddenly, don't enter the opposing lane's traffic and obey the lights and the "speed limit" (walk, don't run).



HUDBAY

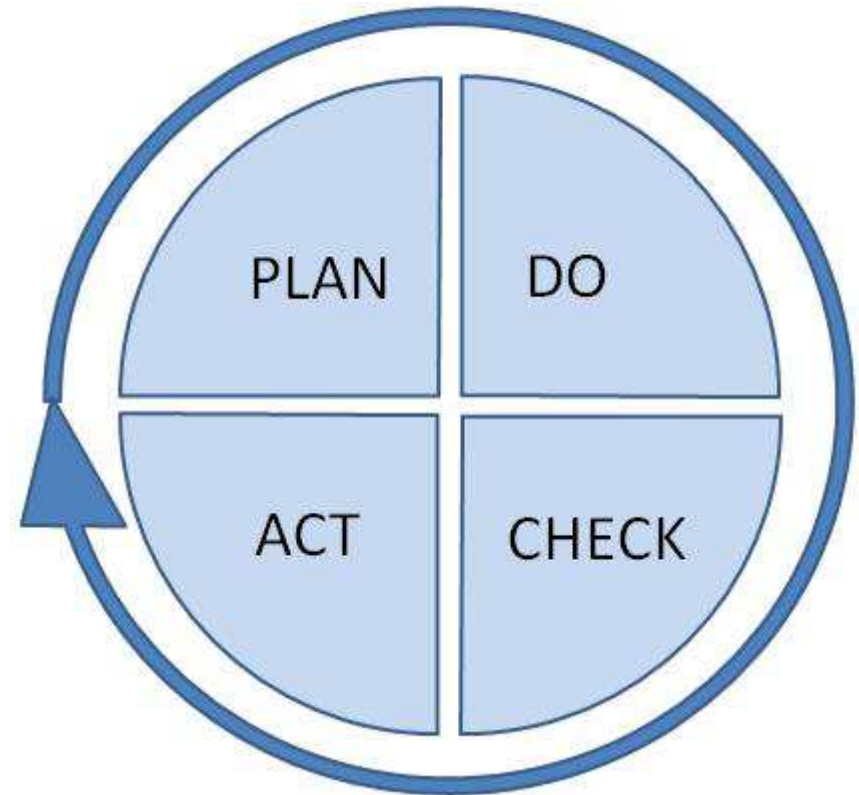
TOOLS



OHSAS 18001 (or equivalent)

H&S MANAGEMENT SYSTEMS

- Plan, do, check, act model
 - Policy
 - Hazard identification and risk assessment
 - Legal and other requirements
 - Roles and responsibilities
 - Training and communication
 - Incident investigation
 - Emergency preparedness and response
 - Measurement and monitoring
 - Management review



3rd party certification not necessary but principles are

Towards Sustainable Mining

- Mining Association of Canada program
 - Condition of membership
 - 6 protocols
 - Tailings management
 - Aboriginal and community outreach
 - Crisis planning and communication
 - Energy use and greenhouse gas emissions
 - Biodiversity
 - **Health and safety**



Visible Felt Leadership

- VFL program geared towards senior management
 - While on tour, follow guidance for discussing EHSC hazards, risks and controls with front-line workers
 - Promotes positive reinforcement
 - Promotes immediate corrective action as necessary
 - Cannot be used as disciplinary tool



NEIL GEORGE 5-POINT SS

FIVE POINT SAFETY SYSTEM

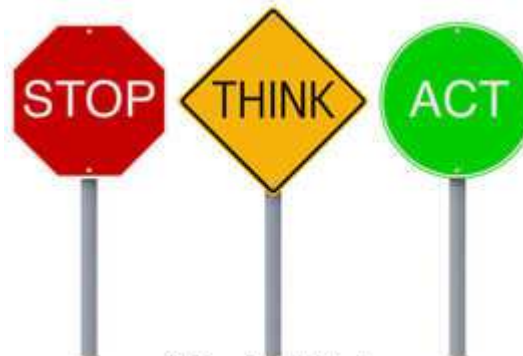
The program is made up of five components:

- Check entrance and travel way to workplace.
- Are workplace and equipment in good working order?
- Are employees working properly?
- Do an act of safety.
- Can and will employees continue to work properly?

1. Identify and correct any hazards on the way to and from my workplace				Yes	No	Superv.
			Travel way to job site clear and safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Power, blasting, leaky feeder, air and water lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Pre-Op equipment check completed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Adequate signage posted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Ventilation to standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TAKE FIVE

- A pre-task risk assessment tool. The basic process is:
 - STOP – take a look around
 - REVIEW – the task
 - ASSESS – identify hazards and evaluate
 - MANAGE – control the hazards
 - SAFELY – complete the task



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Positive Attitude Safety System

- PASS is a dynamic and organic Safety process that assists line management to encourage and reinforce Safe Attitudes, Decisions and Behaviours. This creates a positive Safety environment, which supports employees' Safety habits and encourages employees to bring forward their ideas on Safety improvements.
- Main components of PASS:
 - Dynamic Daily Safety Conversation / Safety Huddles
 - Safety Day Charts
 - A Logs
 - Report Down System
 - White Board



Incident Cause Analysis Method

- Facilitated method for team investigation of incidents
 - Prepare – assemble team, review contributing factors and timelines
 - Define the incident (what happened, what was the consequence, what was the potential)
 - Identify defenses – using the timeline, identify the loss of control
 - What are the existing defenses, were these used, what others should have been in place
 - Identify actions – avoid opinions, ensure there is a verb
 - Who was directly involved, what errors or violations were made
- Identify conditions – use workplace and human factors as prompts to identify conditions that influenced previously identified defenses and actions
 - What conditions influenced behaviours, risk levels, undermined system defenses
- Identify organizational factors – establish why the influence exists, the underlying causes of poor defenses
 - What factors produced the behavioural and risk influences, allowed the adverse conditions, undermined the defenses
- Develop recommendations – use hierarchy of control, ensure risk reduction / prevention
 - Address all org factors and defenses

- EHSC information system
 - Company-wide records
 - Environmental, health and safety and community incidents
 - Engagement activity
 - Requirements management
 - Location based and corporate roll-up reports / dashboards
 - Statistics
 - Trends
 - Task management
 - Scheduled
 - Event driven timelines
 - Notifications / reminders



HUDBAY

MONITORING AND AUDITS



Monitoring and Audits

- OHSAS 18001 – internal audit requirement (plus external if certified)
- TSM – annual internal assessment verified externally every 3rd year
- VFLs – target volume of visits / quality of reports
- 5 point / Take 5 – correct items of concern
- PASS – commitments met
- ICAM – conducted as required / quality of reports / recommendations implemented
- Intalex – corrective actions arising from records



HUDBAY



FOR MORE INFORMATION CONTACT:

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