OVERVIEW OF THE MHSC AND UPDATE ON THE BARRING PROJECT

30TH OF MARCH 2017

Rustenburg RFT Meeting

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Presentation Outline

1. MHSC mandate
2. Adoption of LP / BP and Research outcomes
3. Opportunities to improve the safety of barring practices
4. Conclusion
MHSC mandate

MHSC is a national public entity established in terms of the MHSA, No 29 of 1996.

- Advise the Minister on all occupational health and safety issues in the mining industry relating to legislation, research and promotion.
- Review and develop legislation (regulations) for recommendation to the Minister.
- Promote health and safety culture in the mining industry.
- Oversee research in relation to health and safety in the mining industry.
MHSC Role in the SAMI

- Promoting a culture of OHS.
- Fostering an effective tripartite partnership.

To promote the culture of OHS in the mining industry by striving towards zero harm on all health and safety issues and legislation
MHSC Overview

Mine Health and Safety Council

Audit and Risk Committee (ARC)

Human Resources & Remuneration Advisory Committee (HRMAC)

Mining Regulations Advisory Committee (MRAC)

Legislation
Regulations
Guidelines
Standards

Mining Occupational Health Advisory Committee (MOHAC)

Health Policy
Health information
Health Regulations / Research input

Culture Transformation Advisory Committee (CTAC)

Oversight role on the overall implementation of culture transformation

Safety in Mines Research Advisory Committee (SMRAC)

Research needs
Research programmes

Mining Industry HIV/AIDS and TB Advisory Committee (MITHAC)

HIV/AIDS and TB Programmes

MHSC Office: Operations, Execution and Implementation
MHSC Research Thrust Areas

**Safety**
- Rock falls
- Rock burst
- Explosions and Fires
- Machinery and Transport

**Occ Health**
- Airborne pollutants
- Physical hazards
- Occupational diseases

**Special projects**
- Human factors / behavioral safety
Adoption of LP / BP and Research outcomes

Mining Charter, culture transformation framework (CTF) and 2014 OHS summit milestones encourages the following in the SAMI in an attempt to accelerate the attainment of Zero Harm:

- Sharing of knowledge and experiences
- Adoption of leading practices (LP) [MOSH] / best practices (BP)
- The use of research outcomes to inform OHS decision making
2014 OHS Summit milestones

**Elimination of fatalities and injuries**
- Zero fatalities by Dec 2020
- 20% reduction in serious injuries per year by Dec 2016
- 20% reduction in lost time injuries per year from Jan 2017

**Rehabilitation of mine workers injured in the line of duty**

**Elimination of occupational diseases**
- By December 2024 95% of all exposure measurement results must be below the following limits for the respective respirable dust:
  - 0.05 mg/m³ for silica dust
  - 1.5 mg/m³ for platinum dust
  - 1.5 mg/m³ for coal dust
  - No new cases should occur amongst previously unexposed individuals

**Elimination NIHL**
- By December 2024, noise emitted by equipment should not exceed 107 dB(A).
- By December 2016, no employee standard threshold limit will exceed 25 dB from the baseline.

**Integrate and simplify compensation systems**

**Reduction and prevention of TB, HIV & AIDS**
- By December 2024, the TB incidence rate should be at or below the National TB incident rate.
- 100% of employees offered HIV Counseling and Testing (HCT) annually & all eligible employees linked to an Anti Retroviral Treatment (ART) programme.

**Culture Transformation Framework**
- 100% implementation of the Leadership, Risk Management, Data Management, Diversity Management, Leading Practice and Bonus and Performance Incentive pillars by December 2020.

**ESTABLISH CENTRE OF EXCELLENCE FOR RESEARCH, RESEARCH IMPLEMENTATION AND CAPACITY-BUILDING**
Opportunities to improve the safety of barring practices

FOG are among the major causes of fatalities and injuries in the SAMI - A significant proportion of the FOG accidents are as a result to non-compliance to barring standards:

- Not barring at all.
- Insufficient barring.
- Incorrect barring.
RE Findings

Barring to standard

41% Non-compliance
59% Compliance
RE Findings

Reasons for non-compliance

- Equipment usage - Blunt, old pinch bars, incorrect length: 16
- Equipment usage - No gaskets: 23
- Not placing hands behind gaskets: 9
- Positioning too close to others or rock: 15
- Positioning downdip/unsafe side: 12
- Rushing: 3
- Lack of watering down, inspection, visual or sounding: 2
- No buddy Barring: 15
- Laziness: 7
Opportunities to improve the safety of barring practices

The Four Main Objectives of the study:

• Root Cause Analysis
• Identification of leading practices
• Assessment of barring training
• The development of innovative barring training material
Research outcomes

- Innovative barring training videos were developed for underground coal, gold and platinum mines (English, Zulu, Tswana and Xhosa)

- Recommended some opportunities for improving the safety of barring
Feasible Implementation Solutions

- Adoption of MOSH Entry Examination initiative;
- Adoption of MOSH Trigger Action Response Plan (TARP) initiative;
- Improved Illumination such as use of EE Light;
- Buddy Barring;
- Behaviour-based Safety training;
- Leadership training;
- Increased Visible Felt Leadership;
Dissemination

- A barring workshop was held on the 23rd of March 2017 at Glenburn Lodge.
- Barring workshop / day of can be arranged in the region upon request.
- Research report, training videos and presentations will be uploaded on MHSC website.
- Kindly request for research material from: entlakane@mhsc.org.za / fmagweregwede@mhsc.org.za
- Mines are encouraged to assess if the research outcomes can be used to enhance EE and barring practices.
The road to Zero Harm

• Attaining ZERO HARM is a journey which is long, windy and bumpy

• Over the last years, through tripartism, working together, huge progress has been made in reducing the frequency of mining fatalities in the SAMI, which is the result of legislative, research, adoption of LP and technological interventions.

• About 482 in 1994 vs 73 fatalities in 2016
EVERY MINE WORKER RETURNING FROM WORK UNHARMED EVERYDAY

20 Years of Positive Contribution to Zero Harm for mine workers. Pursuing Research Excellence