



**MHSC**

**Mine Health and Safety Council**

**23 September 2020**

***Projects Ready For Dissemination in 2020/2021***

**TTKFs**

**Technology Transfer and Knowledge Facilitators**

# ***Presentation Outline***

- 1. Background**
- 2. Guidelines for MCOPs and Guidance Notes**
- 3. Dissemination Ready Projects and associated Advisory Notes**



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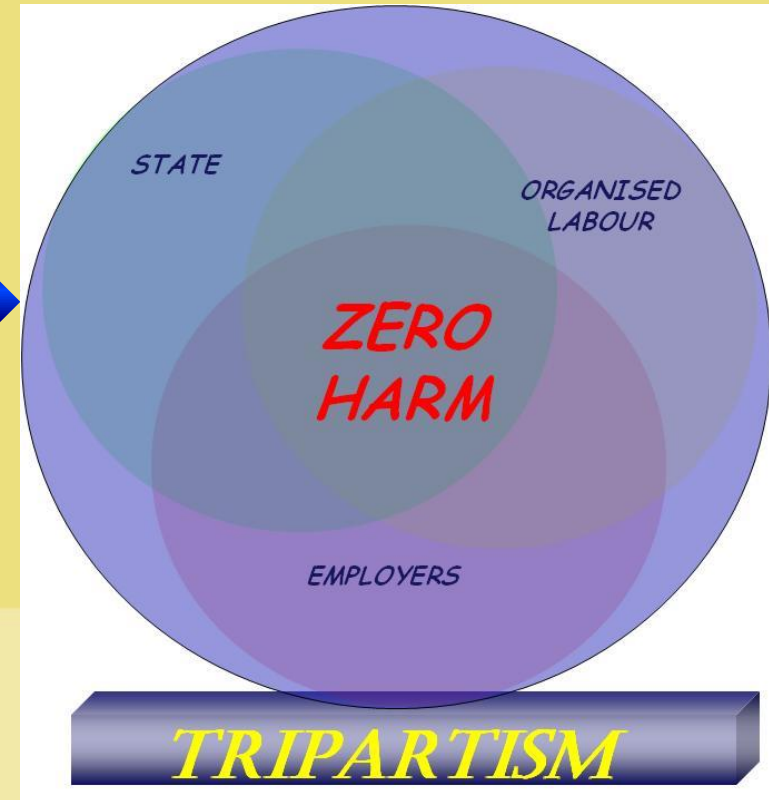
**Mine Health and Safety Council**

# ***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

Driven by



# 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



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**Mine Health and Safety Council (MHSC)**

**State  
Labour  
Employers**

Audit and Risk  
Committee

**ARC**

**HRRAC**

Human Resources and Remuneration  
Advisory Committee

**MRAC**

**MOHAC**

**Culture  
Transformation  
Advisory  
Committee (CTAC)**

**SIMRAC**

**MITHAC**

Legislation  
Regulations  
Guidelines  
Standards

Health Policy  
Health Information  
Health Regulations  
Research Input

Oversight role on the overall  
implementation of culture  
transformation

Research Needs  
Research Programmes

HIV/AIDS and TB  
Programmes

**Centre of Excellence**



# MHSC Research Thrust Areas

## *Occupational Health*

*Airborne pollutants*

Physical hazards

*Occupational diseases*

## *Safety*

*Rock falls*

Rock burst

*Explosions and Fires*

Machinery and  
Transport

## *Other*

*Human factors /  
behavioral safety*

*Special projects*



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# Guidelines for MCOPs and Guidance Notes

NAME	AIM	Readiness
<p><b><u>Guidance Note</u></b> on Medico Legal Investigations of Mine Deaths</p>	<p>To assist and give guidance regarding the roles and responsibilities in cases mine deaths</p>	<ul style="list-style-type: none"> <li>• E book on website</li> <li>• <a href="https://www.mhsc.org.za/legislation-document/guidance-note-medico-legal-investigations-mine-deaths-promulgation">https://www.mhsc.org.za/legislation-document/guidance-note-medico-legal-investigations-mine-deaths-promulgation</a></li> <li>• hard copies printed</li> </ul>
<p><b><u>Guideline</u></b> for the Compilation of a Mandatory Code of Practice for the Prevention of Flammable Gas and Coal Dust Explosions in Collieries</p>	<p>To assist the employer of every coal mine to compile a COP to reduce the risk of an ignition of flammable gas and coal dust explosions</p>	<ul style="list-style-type: none"> <li>• E book on website</li> <li>• <a href="https://www.mhsc.org.za/sites/default/files/public/publications/Prevention%20of%20flammable%20gas%20and%20coal%20dust%20explosions%20in%20collieries_Distribute.pdf">https://www.mhsc.org.za/sites/default/files/public/publications/Prevention%20of%20flammable%20gas%20and%20coal%20dust%20explosions%20in%20collieries_Distribute.pdf</a></li> <li>• hard copies printed</li> </ul>
<p><b><u>Guideline</u></b> for Compilation of a Mandatory Code of Practice for the Management of Self-Contained Self-Rescuers in Mines</p>	<p>To Assist employers to implement principles required for the management of procedures intended for the appropriate deployment of SCSRs in mines</p>	<ul style="list-style-type: none"> <li>• E book on website</li> <li>• <a href="https://www.mhsc.org.za/sites/default/files/public/publications/Management%20of%20SCSR%20in%20mines.pdf">https://www.mhsc.org.za/sites/default/files/public/publications/Management%20of%20SCSR%20in%20mines.pdf</a></li> <li>• hard copies printed</li> </ul>



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# Guidelines for MCOPs and Guidance Notes

NAME	AIM	Readiness
<p><b><u>Booklet</u></b> South African Mining Strategy on Reducing TB and HIV</p>	<p>To provide strategies for reducing the burden of TB infection and disease in South African goldminers: the role of preventive therapy</p>	<ul style="list-style-type: none"> <li>• <a href="https://www.mhsc.org.za/sites/default/files/public/research_documents/Strategies%20for%20reducing%20the%20burden%20of%20TB%20infection%20and%20diseases.pdf">E book on website</a></li> <li>• <a href="https://www.mhsc.org.za/sites/default/files/public/research_documents/Strategies%20for%20reducing%20the%20burden%20of%20TB%20infection%20and%20diseases.pdf">https://www.mhsc.org.za/sites/default/files/public/research_documents/Strategies%20for%20reducing%20the%20burden%20of%20TB%20infection%20and%20diseases.pdf</a></li> <li>• hard copies printed</li> </ul>
<p><b><u>Guidance Note</u></b> on HIV Self-Testing for the South African Mining Industry</p>	<p>The guidance note was developed for the mining industry to provide a framework in implementing the self-testing approach in line with the WHO guidelines.</p>	<ul style="list-style-type: none"> <li>• E book on website <a href="https://www.mhsc.org.za/search/node/self-testing">https://www.mhsc.org.za/search/node/self-testing</a></li> <li>• hard copies printed</li> </ul>
<p><b><u>Guidance Note</u></b> on strengthening the HIV Counselling and Testing (HCT) uptake in SAMI</p>	<p>To provide a framework in promoting and implementing the HCT uptake in the SAMI in order to facilitate the achievement of the first and second 90 of the UNAIDS 90:90:90 strategy through targeted testing and linkage to care in line with the WHO test and treat policy</p>	<ul style="list-style-type: none"> <li>• E book on website</li> <li>• <a href="https://www.mhsc.org.za/search/node/strengthening">https://www.mhsc.org.za/search/node/strengthening</a></li> <li>• hard copies printed</li> </ul>



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# Guidelines for MCOPs and Guidance Notes

NAME	AIM	Readiness
<p><b><u>Guideline:</u></b> For the MCOP on the mitigation and management of Covid-19</p>	<p>The objective of this guideline is to assist employers to establish and maintain a COVID-19 prevention, mitigation and management programme at mines</p>	<ul style="list-style-type: none"><li>• <a href="#">E book on website</a></li><li>• <a href="https://www.mhsc.org.za/issues/guidelines-mandatory-code-practice-mitigation-and-management-covid-19-outbreak">https://www.mhsc.org.za/issues/guidelines-mandatory-code-practice-mitigation-and-management-covid-19-outbreak</a></li><li>• Newsletter approved and uploaded</li><li>• Hard copies to be printed</li></ul>



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# Dissemination Ready Projects and associated Advisory Notes

NAME OF THE PROJECT	AIM OF THE PROJECT	APPROVED DISSEMINATION OUTPUTS (ADV. NOTE)	Dissemination Readiness
<p><b>COE150602</b> Assess the feasibility of reducing diesel particulate matter (DPM) exposure through replacement and/or conversion of all tier 0 with tier 2/tier3 engines to be able to use low sulphur diesel fuel and the effective maintenance of diesel machine</p>	<p>Generate a report on the feasibility of previous transitions of Tier 0 diesel machines to Tier 2 or Tier 3 diesel engines, along with opportunities and challenges encountered and how these could be or were addressed.</p>	<ol style="list-style-type: none"> <li>1. Final project report</li> <li>2. Summary of recommendations</li> </ol>	<p><a href="https://www.mhsc.org.za/research-documents/coe1506-assess-feasibility-reducing-diesel-particulate-matter-dpm-exposure">Final report available on MHSC website: https://www.mhsc.org.za/research-documents/coe1506-assess-feasibility-reducing-diesel-particulate-matter-dpm-exposure</a></p> <p>2. Summary booklet/web-page summary to be developed and disseminated</p>
<p><b>SIM150601</b> Develop methodologies for the measurement of diesel exhaust emissions (DEE) and diesel particulate matter (DPM)</p>	<p>To recommend methodologies for measuring DEE and DPM in mines to be able to quantify the associated hazards and implement control measures.</p> <p>The project outcomes included a draft advisory note on measurement as well as an SOP for different measurement methodologies</p>	<ol style="list-style-type: none"> <li>1. Final project report</li> <li>2. Incorporate outcomes of COE 150602 and approve Guidance Note and SOP as an annexure to Guideline for the MCOP for Airborne Pollutants</li> <li>3. Create and disseminate awareness material</li> </ol>	<p>1. Final report available on MHSC website: <a href="https://www.mhsc.org.za/research-documents/sim150601-develop-methodologies-measurement-diesel-exhaust-emissions-dee-and">https://www.mhsc.org.za/research-documents/sim150601-develop-methodologies-measurement-diesel-exhaust-emissions-dee-and</a></p> <p>2. MOHAC to guide</p> <p>3. Booklet summarizing outcomes/ await guidance from MOHAC on what information can be disseminated.</p>
<p><b>SIM 160902</b> Assessment of the Ergonomic Design of Self-contained Self-Rescuer (SCSR) Devices for Use by Women in Mining</p>	<p>To assess the ergonomic design of self-contained self-rescuer (SCSR) devices for use by women in the South African mining industry and to propose improvements to SCSR devices</p>	<ol style="list-style-type: none"> <li>1. Final project report</li> <li>2. Summary Booklet</li> <li>3. Guidance Note on selection of belts</li> <li>4. Training Material on experiential and expectation training of donning and use of SCSR</li> </ol>	<ol style="list-style-type: none"> <li>1. Uploaded on website</li> <li>2. <a href="https://www.mhsc.org.za/research-documents/sim-160902-assessment-ergonomics-design-self-contained-self-rescuer-scsr-devices">https://www.mhsc.org.za/research-documents/sim-160902-assessment-ergonomics-design-self-contained-self-rescuer-scsr-devices</a></li> <li>2. Booklet to be finalized and approved by RODTC</li> <li>3. Guidance Note to be developed by MOHAC (Taking into account the promulgated SCSR guideline)</li> <li>4. Add to procurement plan, get service provider to develop training material</li> </ol>

# Dissemination Ready Projects and associated Advisory Notes

NAME OF THE PROJECT	AIM OF THE PROJECT	APPROVED DISSEMINATION OUTPUTS (ADV. NOTE)	Dissemination Readiness
<p><b><u>SIM160701</u></b> Proposed illumination guidelines for equipment operating in the South African mining industry (SAMI)</p>	<p>To develop minimum standards for illumination based on current global best practices on mines for mobile and fixed equipment in the gold, platinum, diamond and coal mining industry of South Africa. This is aimed at assisting the SAMI in minimizing accidents caused by 'Lack of Illumination/visibility'</p>	<ol style="list-style-type: none"> <li>1. Project Final report</li> <li>2. Approval of minimum standards for illumination for the SAMI and advice Council-MOHAC</li> <li>3. Develop promotional material to popularize the minimum standards</li> </ol>	<p>1. <a href="https://www.mhsc.org.za/research-documents/sim160701-proposed-illumination-guidelines-equipment-operating-south-african">Final report available on MHSC website: <u>https://www.mhsc.org.za/research-documents/sim160701-proposed-illumination-guidelines-equipment-operating-south-african</u></a></p> <p>2. <b>MOHAC to recommend standards to Council</b></p> <p>3. <b>Dissemination to package the minimum standards and RODTC to approve</b></p>
<p><b><u>SIM170603</u></b>The Reproducibility of Digital X-Ray and Analog X-Ray Readings for Medical Surveillance in the South African Mining Industry to Determine the Reproducibility of Digital and Analog Chest Radiography for Detection of Silicosis and Silicosis Plus Pulmonary Tuberculosis</p>	<p>To confirm if mining surveillance chest radiography using the new digital technology gave similar results as analog chest radiography in the identification of silicosis and pulmonary tuberculosis as analog chest radiography. To assist in achieving the 2014 OHS Milestone "Using present diagnostic techniques, no new cases of coal workers pneumoconiosis will occur amongst previously unexposed individuals"</p>	<ol style="list-style-type: none"> <li>1. Project Final report</li> <li>2. 48 Consensus read X-Ray images to be used for training purposes</li> <li>3. 2 Journal articles summarizing findings of the project</li> <li>4. Summary booklet</li> </ol>	<p>1 &amp; 3 Final report, 2 journal articles available on MHSC website: <a href="https://www.mhsc.org.za/research-documents/sim170603-comparison-digital-and-film-chest-radiography-detection-and-medical">https://www.mhsc.org.za/research-documents/sim170603-comparison-digital-and-film-chest-radiography-detection-and-medical</a></p> <p>2. Images to be made available</p> <p>4. <b>Booklet</b></p>

# Dissemination Ready Projects and associated Advisory Notes

NAME OF THE PROJECT	AIM OF THE PROJECT	APPROVED DISSEMINATION OUTPUTS (ADV. NOTE	Dissemination Readiness
<p><b><u>SIM 140202</u></b> Identify opportunities to improve the safety of barring-down practices</p>	<p>To identify opportunities to improve the safety of barring down practices for the commodities of gold, platinum and coal.</p>	<p>1. Project Final report</p> <p>2. the innovative training material that is developed addresses in various manners the top three causes for these barring accidents being</p> <ul style="list-style-type: none"> <li>• inadequate leadership skills,</li> <li>• inadequate training initiatives and</li> <li>• the habits and behaviour of the workforce</li> </ul> <p>3. Barring Booklet</p>	<p>1. <a href="https://www.mhsc.org.za/research-documents/140202-identify-opportunities-improve-safety-baring-down-practices">Project Final Report available on the website :</a></p> <p>2. <b>Barring Booklet –</b></p>



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# Milestones Reporting Portal

It is up and Running

Please enter your data for your mine.

Please contact Pozisa Mtya at [phanisi@mhsc.org.za](mailto:phanisi@mhsc.org.za)

or phone at 082 405 9188



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**THANK YOU**

**EVERY MINE WORKER RETURNING FROM WORK UNHARMED  
EVERYDAY**



**23 Years of Positive Contribution to Zero Harm for mine workers.**