# MOSH NOISE NEWSLETTER

JULY 2026

## REPORT OF THE LEADING PRACTICE LAUNCH: MUFFLING OF PNEUMATIC HANDHELD TOOLS

MINERALS COUNCIL SOUTH AFRICA

MINING INDUSTRY OCCUPATIONAL SAFETY & HEALTH


Pneumatic Muffler Launch: 19 June 2026

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# 01 | Overview

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Pneumatic Muffler Launch: 19 June 2026

**The Minerals Council South Africa, through the MOSH Noise Team, hosted the official launch of the Leading Practice on Muffling of Pneumatic Handheld Tools on 19 June 2026 in Kathu, Northern Cape, hosted by Sishen Iron Ore Mine.**

The launch brought together Occupational Hygiene and Ventilation practitioners, Engineering Managers, Operational Leaders, HSE professionals, Health and Safety Representatives, organised labour representatives, and noise specialists from across the mining industry to share knowledge and promote the adoption of a practical engineering control aimed at reducing occupational noise exposure.

The Muffling of Pneumatic Handheld Tools Leading Practice focuses on reducing noise emissions generated during tyre management and maintenance activities involving pneumatic handheld tools. The practice incorporates engineered muffling solutions and operational improvements to significantly reduce employee exposure to hazardous noise levels.

## Attendance statistics

**Physical delegates**

**45**

**Start of session**

**130**

**Online delegates**

**202**

**End of session**

**85**

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# 02 Background

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The journey towards the development of this Leading Practice commenced through engagements with Sishen Iron Ore Mine, where innovative solutions had been implemented to address excessive noise exposure associated with pneumatic handheld tools used during tyre maintenance activities.

Following identification of the practice, the MOSH Noise Team initiated a formal evaluation process which included site engagements, technical assessments, verification measurements and benefit analysis. A site verification exercise was conducted during November 2025 to confirm the effectiveness, practicality and transferability of the practice.

Results demonstrated significant reductions in noise levels while maintaining operational effectiveness. The practice was subsequently approved for implementation through the MOSH Adoption System as a Simple Leading Practice for industry-wide adoption.

Sishen Iron Ore Mine therefore served as the source mine, providing valuable operational experience and demonstrating the effectiveness of the intervention under actual mining conditions.

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# 03 | Presentations

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## Welcome and introductory remarks

Summary of key messages to be delivered for the day, including, housekeeping arrangements, emergency procedures, and expectations for the day's proceedings, followed by a MentiMeter "pulse check" to engage delegates and understand expectations from delegates.

## Message from the MOSH Noise sponsor & keynote address

A video by Mr Paul Dunne was shared during the event, providing an overview of the purpose of the event, the importance of engineering noise controls, and the role of the MOSH Adoption System in accelerating industry-wide improvement. He extended sincere congratulations to the Sishen Iron Ore Mine team and its leadership, under the stewardship of CEO, Ms Nompumelelo Zikalala, for their outstanding commitment to advancing Noise Risk Management within the mining industry. It was further highlighted that Sishen Iron Ore has consistently demonstrated industry leadership in the implementation of innovative noise control initiatives, and this commitment was previously showcased through the successful documentation of the Leading Practice on Tyre Deflation.

This was followed by an inspiring and thought-provoking keynote address by Ms Nandi Sibanyoni, delivered in the form of a story. She highlighted that Noise-Induced Hearing Loss (NIHL) remains one of the most prevalent occupational diseases in the South African mining industry, accounting for approximately 38% of all occupational disease cases. Despite progress over the years, annual cases have stabilised at around 700, indicating that the risk has not yet been eliminated. She further emphasised the importance of leadership, culture and sustainability in adopting the Leading Practice, not only for noise control but across all occupational hygiene practices. Ms Sibanyoni challenged the delegates to prioritise occupational hygiene challenges in platforms where safety challenges are discussed, with the purpose of ensuring that occupational hygiene is integrated into all mine's risk management strategies.

**Message from**
**Paul Dunne**
**Minerals Council South Africa, President**

**Noise Leading Practice Message**
**Paul Dunne**
**Minerals Council President**

**Noise Leading Practice Keynote Address**
**Executive Head**
**of SHE Kumba Iron Ore**

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## MOSH leading practice adoption

A summary of the MOSH Adoption System which included the methodology, adoption process, adoption requirements and support available to adopt mines was provided by the Learning Hub Head, Mr Stanford Malatji.

## Noise risk performance

The Director of Occupational Hygiene at the DMPR Department of Mineral And Petroleum Resources, Ms Constance Kekana delivered an overview of the National Occupational Hygiene Statistics related to NIHL with main focus on the Northern Cape region, highlighting the need to embrace Leading Practices and ensure all possible efforts to reduce the NIHL burden are taken.

## MHSC Noise milestones

Mr Brian Mongoma, Technical Advisor for Occupational Hygiene at the DMPR, provided an overview of the industry performance in achieving the industry 2024 milestones. He emphasised the significance of noise reduction through the 3dB (A) exchange rate, highlighting that even the slightest reduction in decibels has significant impact on employee exposure. Mongoma further encouraged the delegates to register for the adoption leading practices.

## Leading practice: muffling of pneumatic handheld tools

Mr Vhusani Mgimeti from Sishen Iron Ore Mine presented a comprehensive overview of the Muffling of Pneumatic Handheld Tools Leading Practice. His presentation outlined the identification of the practice and the original noise-related challenges experienced during tyre management activities, where pneumatic handheld tools generated excessive noise levels, exposing employees to a significant risk of NIHL. He described the engineering solutions implemented to address these challenges, including the introduction of muffled pneumatic tools and associated system modifications, while highlighting key design considerations such as maintaining operational effectiveness, safety, durability, ergonomics, and compatibility with existing work processes. The following benefits were also highlighted during the presentation:

- Reduced employee noise exposure during tyre maintenance activities.
- Additional benefits including improved ergonomics, reduced dust generation, reduced stored energy risks, reduced hand injury potential, and improved operational efficiency.

The presentation further covered the mine's operational experience with the intervention, detailing the development and documentation journey undertaken in collaboration with the MOSH Learning Hub. Mr Mgimeti explained the evaluation and verification process, including the technical assessment methodology used to quantify noise reductions

## Proven noise reduction results

| EQUIPMENT | BEFORE | AFTER | REDUCTION |
|---|---|---|---|
| **Pressure and Temperature (PT) Gun** | 105 dB(A) | 67.9 dB(A) | 37 dB(A) |
| **Impact Wrench** | 112 dB(A) | 92 dB(A) | 20 dB(A) |

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and assess operational performance. The realised benefits were discussed, including significant reductions in employee noise exposure, improved safety outcomes, enhanced operational efficiency, and additional health and maintenance benefits. He also outlined the criteria applied during the Leading Practice approval process, demonstrating how the intervention satisfied the requirements for effectiveness, practicality, transferability, sustainability, and risk reduction. In conclusion, Mr Mgimeti shared key lessons learnt during implementation and emphasised the sustainability of the intervention, noting that the controls have been successfully integrated into routine operations and maintenance systems, ensuring long-term preservation of the benefits achieved.

The practice supports the industry's commitment towards eliminating NIHL and achieving the 2024 industry noise milestones.

## Adoption process and registration

Mr Kagisho Motseme, Adoption Specialist for the MOSH Noise Team, concluded the technical programme with an overview of the adoption requirements for the Muffling of Pneumatic Handheld Tools Leading Practice. The presentation provided delegates and prospective adopters with guidance on the adoption registration process, expected implementation timelines, available support mechanisms, and the documentation required throughout the adoption journey. He also outlined the resources and supporting documentation available to assist mines during implementation and provided contact details for further information and technical support. The session ensured that interested operations had a clear understanding of the steps necessary to successfully adopt and sustain the Leading Practice.

## Open discussion and questions

Delegates were afforded the opportunity to engage in an interactive discussion following the presentations, allowing for the clarification of technical aspects, implementation considerations, and practical application of the leading practice.

Discussions focused on the transferability and scalability of the leading practice across different mining commodities, operational environments, and equipment configurations. Participants shared operational experiences, raised implementation challenges, and explored opportunities to strengthen industry-wide adoption. The presenters provided technical responses and guidance, reinforcing the importance of collaboration, knowledge sharing, and continuous improvement in advancing noise risk management across the South African mining industry.

## Presenters

**Ntokozo Khanyile**
Safety, Health, Environment, Protection, and Sustainable Development Manager at Kumba Iron Ore.

**Brian Mongoma**
Occupational Hygiene Technical Advisor at Department of Minerals and Petroleum Resources.

**Constance Kekana**
Director Occupational Hygiene at Department of Minerals and Petroleum Resources.

**Stanford Malatji**
Head of Learning Hub.

**Nandi Sibanyoni**
Executive Head of Safety, Health, Environment and Sustainable Development at Kumba Iron Ore.

**Vhusani Mgimeti**
Section Manager Occupational Hygiene at Kumba Iron Ore.

**Paul Dunne**
Chief Executive Officer of Northam Platinum.

**Kagisho Motseme**
Principal Adoption Specialist: Noise at Minerals Council South Africa.

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# 04 | Way forward

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The MOSH Noise Team will continue to engage with participating operations to support the effective adoption of the Leading Practice and to promote knowledge sharing across the mining industry. The team has circulated the presentation material to all delegates, and will distribute the Adoption Guide to registered mines, and provide ongoing support to operations wishing to register for adoption. Follow-up engagements will be conducted with potential adopters to address implementation requirements and provide technical guidance where necessary.

Please find below the links to the resources shared during the launch:

**Presentation material**

https://www.mosh.co.za/publications-news-events/events/noise-past-events

**Adoption registration**

https://www.mosh.co.za/noise/leading-practices/muffling-of-pneumatic-handheld-tools

In addition, the MOSH Noise Team will monitor the adoption progress, document adoption success stories and lessons learnt, and share these outcomes through regional forums and relevant industry committees to encourage wider adoption and continuous improvement.


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# 05 Word of thanks

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The MOSH Noise Team extends its sincere appreciation to the management and employees of Sishen Iron Ore Mine for hosting the launch of the Muffling of Pneumatic Handheld Tools Leading Practice. The willingness of Sishen Iron Ore Mine to openly share its innovation and experience demonstrates the industry's commitment to collaboration and the prevention of Noise Induced Hearing Loss. The contribution made by the Sishen team will play a significant role in accelerating the adoption of effective engineering noise controls across the South African mining industry.

The MOSH Noise Team also wishes to thank all presenters, delegates and participating organisations for their valuable contributions and commitment to improving occupational health and safety within the mining sector.

Yours sincerely,


**MINERALS COUNCIL**

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