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## MOSH LEARNING HUB – DUST PRACTICES TO DATE

**Preamble: There is no single practice that will ensure compliance to the 2024 milestones BUT a collective approach of ALL the practices together with a proper dust management strategy that will ensure continuous and sustainable compliance TO these practices and other on mine dust suppression systems.**

Description	*Type	Applicable to:-	Expected benefits
<p><b>Rolled out 2008-Fogger system</b></p> <p>The installation of fogger / mist spray systems to capture airborne respirable dust:</p> <ul style="list-style-type: none"> <li>❖ Station ore pass system – Gold Mines/Platinum</li> <li>❖ Main intake airway with conveyer belts – Coal Mines</li> <li>❖ Transfer point on surface – Coal Mines</li> </ul>	LP	<p>Gold</p> <p>Coal</p> <p>Platinum</p> <p>Surface Operations (tipping bins)</p>	<p>The application of fogger dust suppression system (used with a surfactant) resulted in a reduction in:</p> <ul style="list-style-type: none"> <li>❖ Respirable Dust Concentrations (RDC) by between 80.0 % and 86.2 %;</li> <li>❖ Respirable Quartz Concentrations (RQC) by</li> </ul>



COUNCIL OF THE CHAMBER: M Mgojo (President), A Sangu (Vice President), N Froneman (Vice President), S Phiri (Vice President) A Bam, R Baxter, P Dunne, M Fraser, C Griffith, N Holland, MJ Houston, L Kgatle, J Kunji-Behari, B Magara, M Mahlaole, D Mashile-Nkosi (Ms), Z Matlala (Ms), N Mbazima, T Mkhwanazi, N Muller, J Ndlovu, B Petersen, N Pienaar, W Potgieter, N Pretorius, MP Schmidt, PW Steenkamp, M Teke, S Venkatakrishtman

<p><b>Rolled out 2013-Winch Cover</b></p> <p>This simple leading practice involves fitting a cover over the operating drums of a scraper winch to reduce the harmful dust exposure experienced by winch operators. Winch operators have been identified across industry as the occupation with the highest exposure to silica dust.</p> <p>In principle, the winch cover simply involves fitting a cover to the winch drum guard or to the winch casing of existing winches.</p>	<p>SLP</p>	<p>Gold Platinum</p>	<p>The installation of a winch cover has been found to result in a 50% reduction in aerosol particles (total dust) in the breathing zone of winch operators.</p>
<p><b>Rolled out 2015-Real-time Monitoring of Airborne Pollutant Engineering Controls</b></p> <p>The Leading Practice consistently provides assurance of the sustained integrity of appropriate engineering controls tailored to mitigate airborne pollutants. This practice provides indications to:</p> <ul style="list-style-type: none"> <li>❖ run effective hazard protection programs for affected workers;</li> <li>❖ detect working places or processes with unsatisfactory airborne pollution conditions;</li> <li>❖ find sources or causes of such conditions;</li> <li>❖ determine the effectiveness of airborne pollutant suppression methods or equipment;</li> <li>❖ upgrade control measures;</li> <li>❖ confirm that satisfactory conditions have been achieved following remedial measures;</li> <li>❖ endorse that satisfactory conditions are being maintained;</li> <li>❖ improve design of ventilation systems;</li> <li>❖ show trends of ambient conditions;</li> <li>❖ Define risk levels through appropriate risk assessments.</li> </ul>	<p>LP</p>	<p>Gold Coal Platinum Diamonds Surface Operations (entire industry)</p>	<p>Following the installation of real-time monitors an average improvement in the dust load (TWA) was observed as follow:</p> <p>Gold:- 66.4 % Coal:- 85.0 %</p>

\*LP = Leading Practice

\*SLP = Simple Leading Practice

## Nico Pienaar

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**From:** Vukosi Banyini <VBanyini@chamberofmines.org.za>  
**Sent:** 04 July 2017 07:10 PM  
**To:** Nico Pienaar  
**Cc:** Kagisho Motseme; Stanford Malatji; Sietse Van Der Woude; Willie Deysel  
**Subject:** RE: Update and feedback on work done by MOSH Dust Team  
**Attachments:** Microsoft Word - MOSH Dust Feedback 5 Jul 2017.pdf

Good day Mr. Pienaar

Please find attached a report on MOSH Dust practices with a short description, where it is applicable and benefits. We are most willing to come and do presentation at any forum.

At this stage, we are rolling out the Continuous Real Time Leading Practice described on page 3 of the documents. We have 51 mines that have signed up and share/learn through the Community of Practice for Adoption (COPA).

Kind Regards  
Vukosi

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**From:** Nico Pienaar [<mailto:nico@aspasa.co.za>]  
**Sent:** 04 July 2017 02:59 PM  
**To:** Willie Deysel; Kagisho Motseme; Sietse Van Der Woude  
**Subject:** Update and feedback on work done by MOSH

Hi There, we had a meeting today and it was suggested that ASPASA establish what has transpired with the work that Mosh is doing on DUST and NOISE. Could we get a short report, be placed on the distribution list and maybe even that we hold a short feedback session to bring the ASPASA members up to date. There are concerns that issues get decided that affect the ASPASA members without us knowing. Regards

**NICO PIENAAR**

**DIRECTOR**

**ASPASA**

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