

# MHSC Guideline for the identification and adoption of leading OHS practices

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## 1. Introduction

The Culture Transformation Framework agreed to by the Tripartite Partners in 2011 states that *there will be a common approach to identifying and facilitating the adoption of leading OHS practices and research outcomes*. This guideline sets out the details of that approach.

The inclusion of this undertaking in the Framework stemmed largely from a shared desire for the essence of the MOSH Leading Practice Adoption System to be applied more widely in identifying and facilitating the adoption of leading OHS practice across the mining industry. Notwithstanding the common approach set out in this guideline, it is important to recognise that there is an important difference between a MOSH Leading Practice and a Leading OHS Practice identified in accordance with this guide.

A MOSH Leading Practice is a practice that, relative to many other candidate leading practices, has the potential to deliver the greatest OHS benefit across industry in one of the four major OHS risk areas (Falls of Ground, Transport and Machinery, Dust and Noise). The MOSH Leading Practice adoption procedures are thus intense to facilitate the practice delivering on its identified potential. Given the broader intention of the Culture Transformation Framework, the criteria set out in this guideline for the identification of a leading OHS practices is thus wider in terms of the risks covered, and less demanding. Accordingly, it is very important to ensure that the common approach set out in this guideline for identifying and facilitating the adoption of Leading OHS Practices does not unintentionally diminish the benefits derived from application of the rigorous MOSH procedures to address industry's major risk areas. This issue is thus addressed in these guidelines.

### Purpose

The purpose of this guide is to set out a common approach and minimum standards for identifying and facilitating the adoption of leading OHS practice in acting to achieve zero harm.

## 2. Definitions

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| Leading OHS Practice:         | A practice that conforms to the requirements set out in this guide.  |
| MOSH Leading Practice:        | A Leading Practice selected and adopted in accordance with criteria and procedures set out in the MOSH Adoption System, comprising of three documented aspects, technical, leadership behaviour and adopter behaviour. |
| Organisation:                 | An entity that operates in the mining industry and that is required to comply with the Mine Health and Safety Act. This includes process plants etc.   |
| Agency:                       | An external or in-house expert resource contracted to undertake a specific task.   |
| Recognised and valid process: | A process that has been applied and verified to deliver the desired outcome(s).  |

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| Promoter:       | The person that is accountable to see that the adoption is executed as per guidance and that adoption took place. - Sponsor adoption sponsor or promoter or champion or Patron.                             |
| Adoption:       | A process of introducing and implementing a practice that includes communication and training to sustain behaviour change and operation of the practice with full involvement of all relevant stakeholders. |
| Implementation: | A non-specific process of introducing practices that does not include validated behaviour change management.  |
| MOSH:           | Mining Industry Occupational Safety and Health.   |
| MHSC:           | Mine Health and Safety Council.   |
| DMR:            | Department of Mineral Resources.  |
| CTF:            | Culture Transformation Framework.   |
| CoE:            | Centre of Excellence.   |

### 3. Identification of leading practices

Given below are the required actions to identify and register a leading practice for adoption in accordance with the provisions of this guide. In view of the rigour of the MOSH procedures, and the recognition given to MOSH leading practices in the Mining Charter, MOSH leading practices will be included in the MHSC register of leading practices. For reasons explained earlier, they should be adopted using the MOSH procedures.

| Action   | Guidance  |
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| 1. Identify, assess against set criteria, and initiate registration of potential leading practice with CoE | 1.1. Any stakeholder or organisation may initiate registration of a potential leading practice with the MHSC (CoE).<br>1.2. Before approaching the MHSC (CoE), the Initiator must be satisfied that the potential leading practice is likely to meet the assessment criteria set out in this guide. |
| 2. Check if potential leading practice is addressed by MOSH teams  | 2.1. If the practice is addressed by the MOSH Teams, then MHSC (CoE) to engage the Learning Hub to agree the way forward.<br>2.2. Inform Initiator of the outcome and proceed or terminate.   |
| 3. Commission verification of practice against the criteria specified in this guide                        | 3.1. MHSC (CoE) to commission an appropriate Agency to undertake the required verification work.  |
| 4. Execute verification process by selected agency   | 4.1. MHSC (CoE) to ensure that the work is executed according to plan.  |
| 5. Consider verification findings against the specified criteria   | 5.1. MHSC (CoE) to consider verification report and recommendations of the selected Agency.<br>5.2. Inform Initiator of the outcome and proceed or  |

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|   | terminate.  |
| 6. Commission investigation to document the potential leading practice                      | 6.1. MHSC (CoE) to commission an appropriate Agency to undertake the required investigation.<br>6.2. Documentation of the practice to be in accordance with an agreed standard format.  |
| 7. Facilitate execution of the investigation by a selected agency to document the practice. | 7.1. MHSC (CoE) to ensure that the work is executed according to plan.  |
| 8. Review substance and quality of documentation and leading practice                       | 8.1. MHSC (CoE) to review adequacy of the documentation developed to facilitate and guide adoption of the practice by others.<br>8.2. Inadequate documentation to be referred back to Agency for further work.<br>8.3. MHSC (CoE) to endorse or reject the practice as a leading practice with adoption potential and inform Initiator accordingly.<br>8.4. Inform Initiator of the outcome and proceed or terminate. |
| 9. Archive leading practice documentation for ready access and use by adoption mines        | 9.1. A secure archive to be maintained by MHSC for this purpose.  |
| 10. Register practice as a verified leading practice  | 10.1. MHSC (CoE) to register the leading practice with MHSC.  |
| 11. Communicate details of leading practice to industry                                     | 11.1. MHSC (CoE) to prepare a communication brief for distribution to industry by MHSC.   |

#### 4. Assessment criteria for registering a Leading OHS Practice

Given below are the criteria for assessing and verifying that a candidate practice qualifies for being registered by the MHSC as a Leading Practice for consideration by mines in addressing their identified risks.

*Importantly, assessment of the practice against all of these criteria must be positive for a practice to be registered by the MHSC as a Leading OHS Practice. Accordingly, the criteria are not prioritised.*

| Criteria   | Comment / guidance  |
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| In each case, the Leading Practice must:   |   |
| 1. Address a hazard that is identified in the SAMRASS Code   | SAMRASS provides employers with a specific structure of operation and risk that need to be reported on. A Leading Practice needs to address a hazard that is directly related to a SAMRASS code(s).   |
| 2. Have a significant impact on Health and Safety performance  | The impact that a potential Leading Practice will make on Safety and Health performance must be quantified in order to enable the MHSC to decide if the potential Leading Practice is indeed a Leading Practice.  |
| 3. Not be already addressed by regulation or regulatory constraints                                  | The Mine Health and Safety Act and associated regulations define specific requirements that employers need to comply with. Practices that are already defined in the act will not qualify as Leading Practices.   |
| 4. Be verifiable and in operation at an existing operation   | In order to be sure that a potential Leading Practice will work the existing operation where it is in operation must be visited to physically verify the existence and operation of the practice.   |
| 5. Be successfully in operation at a mine for at least 1 year after commissioning                    | In order to avoid practices that initially seem to be working but are not reliable or sustainable a practice must have been in routine operation for at least 1 year after successfully commissioning the practice (not from the date of starting development or installation of the practice).   |
| 6. Be sufficiently developed to be ready for adoption by others (a technology readiness level of 9). | <p>A practice not yet fully developed has the potential to disrupt operations and have serious unintended consequences. Technological development goes through a number of phases, sometimes iteratively. In some cases field trials of a prototype might exceed the one year period requirement of point 5, before returning to a developmental phase. The technological readiness of a practice is thus usually assessed in terms of its stage of development. There are various ways of characterising the stages or levels of development, but nine levels are widely used to assess technology readiness.</p> <p>Brief definitions of the nine levels that are used here to assess the technological readiness of a practice are given below:</p> <p>TRL1: Basic principles identified and observed.</p> <p>TRL2: Technology concept formulated.</p> <p>TRL3: Experimental proof of concept.</p> |

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TRL4: Technology validated in the laboratory.

TRL5: Technology validated in relevant environment.

TRL6: Technology demonstrated in a relevant (mining) environment (Technology Innovation Agency).

TRL7: Prototype demonstration in an operational (mining) environment

TRL8: Technology system complete, proven and qualified through test and demonstration.

TRL9: Application of technology in its state acceptable – technology proven in operational environment - competitively manufactured or otherwise readily available.

A TRL score of 9 is required for a practice to be technologically ready for adoption by others.

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| 7. Be easily transferrable to other operations | If a Leading Practice is working in one operation it is not a guarantee that it will work in another. The operational circumstances must be critically assessed and with minimum obstacles being identified that will inhibit ready transfer of the practice to other operations. |
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| 8. Offer a strong value case | <p>A value case includes considerations that are financially quantifiable, as well as those that carry qualitative value. Key components of a value case include the following:</p> <ul style="list-style-type: none"> <li>• Qualitative impacts of significant strategic value.</li> <li>• Occupational health and safety performance improvements.</li> <li>• Net realistically quantifiable financial benefit of both direct and indirect impacts.</li> </ul> |
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| 9. Be relatively quick to adopt but not take any longer than 2 years | In order to avoid major operational projects and to ensure that benefits can be achieved within a reasonable time there must be a high probability that it will be possible for a mine to adopt the Leading Practice in less than 2 years, and preferably within a period of about six months. |
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| 10. No negative unintended consequences on other operational aspects | Unintended consequences of adopting a new practices can be severe at both a mine and industry level. The possibility of the practice giving rise to unintended consequences must be critically investigated to expose any possible negative consequences as well as ways in which they have been or can be adequately addressed. There must be reasonable certainty that adoption of the practice will not unintentionally prove to defeat its intended purpose. |
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| 11. Training and skills development requirements. | Should a Leading Practice require a large number of employees to be equipped with new skills there is a high probability that the practice will not be successfully and sustainably adopted. Skills |
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requirements for a Leading Practice need to be specifically considered and quantified at both a mine and industry level to assess whether it will be realistically possible to achieve the required level of skills development on a widespread basis.

12. Must have significant adoption potential.

The potential leading practice should be applicable to at least 10% of the employees in at least one mining sector, or at least 10 operational mines. Unless these criteria are met the benefit in terms on improved health and safety performance are likely to be limited and not warrant the time and cost required to verify, document and register the practice.

## 5. Adoption of leading OHS practices at the organisation

Given below is guidance setting out the actions, procedures and standards of the common approach called for in the Leading Practice pillar of the Culture Transformation Framework. The guide addresses all six requirements specified in points A to F of this pillar.

| Action   | Guidance  |
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| <p>1. Establish organisation adoption procedures that comply with this guide.<br/><i>CTF point A</i></p> | <p>1.3. Before the adoption of any Leading Practice the organisation’s health and safety committee will oversee the development of a Leading Practice adoption procedure that applies to the adoption of all Leading Practices of the organisation and that conform to the standards set out in this document.</p> <p>1.4. The procedure will include all the requirements and formats for traceability and record keeping defined in this guide.</p>   |
| <p>2. Conduct risk analysis.<br/><i>CTF point B</i></p>  | <p>2.1. Selection of a Leading Practice will be supported by a formal risk analysis including occupational health or fatality and injury trends over a reasonable time specific to the organisation.</p>  |
| <p>3. Identify and prioritise risks</p>  | <p>3.1. From the risk assessment above, identify and prioritise the risk/s in line with the OH&amp;S milestone/s.</p>   |
| <p>4. Select an applicable leading practice<br/><i>CTF points A&amp;B</i></p>                            | <p>4.1. Select the registered leading practice/s from the MHSC’s data base in accordance with the mine’s prioritised risks.</p> <p>4.2. If the identified risk is addressed by a MOSH Leading Practice, compliance with this guide excludes preferential adoption of another MHSC registered leading practice considered to address the risk instead of the MOSH Leading Practice.</p> <p>4.3. Where another registered leading practice is also applicable to the identified risk, that practice may be adopted concurrently with the MOSH Leading Practice.</p> |
| <p>5. Provide required funds and technical resources<br/><i>CTF point E</i></p>                          | <p>5.1. Where an organisation decides to adopt a Leading Practice an explicit budget will be made available to adopt the Leading Practice in accordance with this guideline, including but not limited to funds for competence</p>  |

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|   | development, communication, measurement and monitoring.  |
| 6. Ensure appropriate tripartite involvement and agreement  | <p>6.1. The organisation's health and safety committee will review the formal risk analysis that led to selection of the Leading Practice and amicable solution to selection of the practice.</p> <p>6.2. The organisation will inform the relevant principal inspector in writing to communicate the decision to adopt the Leading Practice.</p> <p>6.3. The organisation will keep a record of engagements with applicable tripartite stakeholders.</p> <p>6.4. The organisation must record the role that health and Safety committee will play during the adoption process (support of desired behaviour, communication, training etc.).</p>   |
| 7. Establish leadership accountability at all levels for successful adoption<br><i>CTF point C</i>                            | <p>7.1. The manager in the organisation that carries the legal appointment in terms of mine accountability will be the Promoter of the Leading Practice adoption process.</p> <p>7.2. Progress as per plan and achieving adoption of the Leading Practice will formally be a part of her/his own KPIs, as well as the applicable subordinate's KPIs, for the full period of the adoption process.</p>  |
| 8. Establish an effective adoption team<br><i>CTF points C &amp; E</i>  | <p>8.1. The Promoter will appoint a multi-disciplinary team with specific responsibilities and KPIs for each member of the team so as to ensure that the provisions of this guideline are met.</p> <p>8.2. The team will primarily comprise of core line function members with occupational health, safety, engineering, training, communications, employee representatives and others as necessary playing the supporting roles.</p> <p>8.3. Team members will be formally assigned to their role(s) indicating the percentage of involvement and time dedicated to the adoption.</p> <p>8.4. All members of the adoption team will complete a formal adoption competence programme before commencement of the project.</p> |
| 9. Develop an adoption plan for the leading practice  | <p>9.1. The organisation will develop and document an adoption plan for every Leading Practice being adopted.</p> <p>9.2. The plan will include all adoption specific activities defined herein as well as all the other activities that are part of the organisation's project management standards/practices.</p> <p>9.3. The plan will include an overall adoption schedule supported by a detailed activity schedule.</p> <p>9.4. The plan will include responsible people (by name) for executing the different activities.</p>   |
| 10. Identify those affected by adoption and then also their existing knowledge, beliefs, and values<br><br><i>CTF point D</i> | <p>10.1. The organisation will follow a <i>recognised and valid process</i> to identify, by job category, front line team members that will be affected by the Leading Practice.</p> <p>10.2. The organisation will similarly follow a <i>recognised and valid process</i> to solicit the current knowledge, beliefs, values and behaviour of the affected groups.</p> <p>10.3. The specific impact on them as well as the desired knowledge and</p>   |

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|  | behaviour of each job category will be documented so as to get visibility of any issues that need to be addressed to ensure adoption (sustainability of the practice).  |
|  | 10.4. Achievement of the desired knowledge and behaviour will be a key measure of successful adoption.  |
| 11. Establish required leadership behaviours<br><i>CTF point C</i>       | <p>11.1. The organisation will follow a recognised and valid process to determine the desired leadership behaviour in all applicable areas of the organisation, but at least for the first three supervisory levels as well as the management team.</p> <p>11.2. The Promoter will ensure that all affected supervisory and management staff is adequately trained and educated to enable consistent delivery of the required leadership behaviours.</p>  |
| 12. Engage to address identified knowledge gaps and barriers to adoption | <p>12.1. The organisation will follow a <i>recognised and valid process</i> to address the identified knowledge gaps and other barriers to adoption, at all levels.</p> <p>12.2. Employee representatives will play a significant role in identifying appropriate modes and means for engaging with employees, and for measuring the effect of the engagement.</p> <p>12.3. The organisation will develop and document interventions to address gaps and improve the quality of leadership in all applicable areas of the organisation but at least for the 1st 3 supervisory levels, as well as the management team, up to and until adoption and desired behaviour have been sustainably achieved.</p> <p>12.4. The organisation will involve organised labour representatives in the process of determining individual leader behaviour.</p> |
| 13. Ensure adequate training of the adopters<br><i>CTF Point E</i>       | <p>13.1. The organisation's adoption team, in conjunction with organised labour, will identify all training, including on the job coaching required for affected employees to become operationally competent in working with the Leading Practice.</p> <p>13.2. The organisation will ensure that each affected employee achieves the required operational competence and not only theoretical class room training.</p> <p>13.3. Training and competence development material will be reviewed to be fit for purpose by the organisation's health and safety committee and training department before training starts.</p>  |
| 14. Assess adoption risks  | <p>14.1. The organisation will conduct and document a formal activity based risk assessment of the adoption process, as well as the associated operational impact.</p> <p>14.2. All risks identified will be adequately addressed before adoption of the practice.</p>  |
| 15. Execute operational adoption plan                                    | <p>15.1. The organisation will undertake all other activities needed to adopt the Leading Practice.</p> <p>15.2. The adoption activities will be integrated with the organisation's internal processes and procedures such that it makes logical and sequential sense.</p>  |
| 16. Document key aspects   | 16.1. The Promoter will assign specific responsibility for establishing a Leading Practice adoption record (file) with achievement of the required record   |

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| of the adoption process   | <p>becoming KPIs of the relevant adoption team members.</p> <p>16.2. The Promoter will sign off the adoption file as confirmation that the leading practice has been adopted in accordance with this guideline and that the behaviour of leaders, operators and affected employees accords with the identified desired behaviour.</p> <p>16.3. The adoption record will contain, as a minimum, the records required for verification and registration of the practice as a Leading Practice.</p>  |
| <p>17. Monitor adoption progress and outcomes</p> <p><i>CTF point F</i></p> | <p>17.1. The organisation will measure the progress with adoption as well as the quality of adoption before and after adoption.</p> <p>17.2. Specific health and/or safety performance will be measured by self-assessment as well as independently.</p> <p>17.3. Parameters (both leading and lagging indicators) such as % of employees exposed above or equal to the standards, number of cases, number of fatalities, LTIs, serious injuries, and others considered appropriate, will be measured and used as the baseline for measuring the adoption effect.</p> <p>17.4. Employee behaviour and leadership behaviour at all applicable levels, but at least for the first three supervisory levels, as well as that of the management team will be measured.</p> <p>17.5. The Promoter in conjunction with the organisation's health and safety department will determine the frequency of self-assessments as well as independent assessment by a reputable and independent party.</p> <p>17.6. The organisation will record the results of all assessments as well as any identified required action.</p> |