# Quarry systems audit Site: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Date conducted:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| 1 Management Systems |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 1.1 | There is a written policy statement which sets out the Safety and Health Policy of the organisation. |  |  |
| 1.2 | An up to date organisation chart is available. |  |  |
| 1.3 | Senior managers accept their responsibilities, with regard to Safety and Health. |  |  |
| 1.4 | Site management staff encourage employees to systematically improve work processes to enhance Safety and Health. |  |  |
| 1.5 | Employees exhibit an understanding of the organisation’s Safety and Health objectives. |  |  |
| 1.6 | There is a formal program to monitor occupational health hazards that have been identified. |  |  |
| 1.7 | Contractors employed in the enterprise are required to comply with the principal employer's Safety and Health Policy. |  |  |
| 1.8 | Personal protective equipment is available to all employees at no cost. |  |  |
| 1.9 | There is a system for the repair of reported equipment and plant faults. |  |  |
| 1.10 | Formal procedures are in place to investigate accidents, occurrences and property damage. |  |  |
| 1.11 | There is an induction and training process at the enterprise. |  |  |
| 1.12 | Safety and Health meetings are held. |  |  |
| 1.13 | Communications are available between the mine and outside emergency services. |  |  |
| 1.14 | Management carries out its statutory responsibilities in respect of the recording and reporting of occurrences and potentially serious occurrences. |  |  |
| 1.15 | Management carried out its statutory responsibilities in respect of the registration, inspection and maintenance of Classified Plant. |  |  |
| 1.16 | Management carried out its statutory responsibilities in respect of the licensing of its electrical installation. |  |  |
| 1.17 | Management carries out its statutory responsibilities in respect of the recording of lost time injuries to workers. |  |  |
| 1.18 | Management has caused a noise report to be compiled. |  |  |
| 1.19 | Management maintains a database recording each employee's training history. |  |  |

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| 2 Explosives Storage |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 2.1 | Magazine of greater than 250kg capacity is licensed by Chief Inspector of Explosives. |  |  |
| 2.2 | The magazine is located at least 50 metres away from any entrance to any underground mine. |  |  |
| 2.3 | Explosives magazine is in excess of 10 m from any detonator magazine. |  |  |
| 2.4 | Magazine is kept locked except when stock movement is occurring. |  |  |
| 2.5 | Incompatible explosive products are not stored together. |  |  |
| 2.6 | Incompatible explosive products are not stored together. No additional unauthorised materials are stored in the magazine. |  |  |
| 2.7 | No explosives are stored loose in the magazine. |  |  |
| 2.8 | A responsible person has been appointed to control the magazine. |  |  |
| 2.9 | Prominent “EXPLOSIVES” sign displayed on magazine. |  |  |

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| 3 Blasting Practices |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 3.1 | Blasts are planned and designed to ensure good blast results ie good fragmentation, displacement of muck pile and looseness. |  |  |
| 3.2 | Drilling patterns are laid out accurately. |  |  |
| 3.3 | Occurrences such as any accident or damage to property by fly rock (or close call) are recorded. |  |  |
| 3.4 | Where noise, airblast and/or ground vibration are a problem, complaints are recorded. |  |  |
| 3.5 | Drilling is not carried out on a bench face until it has been checked for misfires. |  |  |
| 3.6 | All means of entry to the place of blasting are securely guarded against entry by persons, or warning notices are erected to prevent entry. |  |  |
| 3.7 | Any charge in a designated blast which has not been fired or has not exploded is treated as misfire. |  |  |
| 3.8 | A sufficient depth of each blasthole is left uncharged to permit adequate stemming. |  |  |
| 3.9 | The depth and condition of blastholes are checked prior to charging |  |  |

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| 4 Isolation & Tagging |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 4.1 | OUT OF SERVICE tags are used to warn against the use of plant which is unsafe to be used or which may be damaged if it is used. |  |  |
| 4.2 | DANGER tags are used to prohibit the use of plant on which an employee is undertaking work. |  |  |
| 4.3 | Each employee removes his own DANGER tag after completing the work and prior to leaving the worksite at the end of the shift. |  |  |
| 4.4 | OUT OF SERVICE tags are attached prior to removing DANGER tags when work on plant is not completed. |  |  |
| 4.5 | The effectiveness of devices used to isolate plant is proved prior to attaching DANGER or OUT OF SERVICE tags. |  |  |

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| 5 Tipping On Stockpiles |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 5.1 | The design is such that potential instability of the dump is minimised. |  |  |
| 5.2 | Day and night where applicable effective route marking is provided for approach to tipping areas. |  |  |
| 5.3 | There is a rising, or at least flat, grade towards the dump edge. |  |  |
| 5.4 | There is control of dust generation |  |  |

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| 6 Emergency Plan |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 6.1 | The operation has prepared an emergency plan. |  |  |
| 6.2 | The emergency plan is known by the quarry personnel. |  |  |
| 6.3 | The emergency plan identifies the types of incidents which may affect the enterprise. |  |  |
| 6.4 | On-site first aid services and facilities are available at the enterprise. |  |  |
| 6.5 | On-site fire fighting resources, include trained personnel. |  |  |
| 6.6 | The emergency plan includes a means of visitor control. |  |  |

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| 7 Occupational Health |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 7.1 | Occupational health hazards have been identified. |  |  |
| 7.2 | Control measures are in place to reduce occupational health hazards identified. |  |  |
| 7.3 | Control measures in place to reduce the occupational health hazards are effective. |  |  |
| 7.4 | Employees have been educated in the occupational health hazards identified. |  |  |
| 7.5 | The exposure of employees to the occupational health hazards identified has been evaluated. |  |  |
| 7.6 | Where necessary employees wear appropriate personal protective equipment to reduce exposure to occupational health hazards identified. |  |  |

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| 8 Mobile Plant |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 8.1 | There is a system of maintenance for mobile plant. |  |  |
| 8.2 | A competent person is appointed to supervise maintenance. |  |  |
| 8.3 | Records are kept for maintenance of mobile plant. |  |  |
| 8.4 | Records are kept for maintenance of mobile plant. |  |  |
| 8.5 | The faults are rectified in an acceptable time frame. |  |  |
| 8.6 | There is a document to show that pre-start checks are carried out for mobile plant. |  |  |
| 8.7 | Mobile plant operators are trained and assessed for competency. |  |  |
| 8.8 | ROPS, where necessary, is provided. |  |  |
| 8.9 | Mobile plant inspected in operation, appeared to be in satisfactory condition. |  |  |
| 8.10 | Radio communication from mobile plant is provided. |  |  |
| 8.11 | There is a system to make checks and approve short term contractor’s mobile plant. |  |  |
| 8.12 | The haul roads are maintained in satisfactory condition. |  |  |

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| 9 Workshop |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 9.1 | A workshop facility is provided for the maintenance of fixed and mobile plant. |  |  |
| 9.2 | The facility is appropriate for the types of tasks undertaken. |  |  |
| 9.3 | The workshop facility is maintained in a tidy condition. |  |  |
| 9.4 | Signs are provided to warn of possible eye, hearing and other hazards. |  |  |
| 9.5 | Fire control equipment is available at the workshop. |  |  |
| 9.6 | Machinery is maintained on a regular basis. |  |  |
| 9.7 | Electrical tools and equipment at the workshop is periodically checked and tagged. |  |  |
| 9.8 | Electrical welding machines are maintained in safe condition. |  |  |
| 9.9 | High pressure gas cylinders are restrained. |  |  |
| 9.10 | High pressure gas hoses and gauges are free from damage. |  |  |
| 9.11 | Proper material handling equipment is provided for the tasks undertaken. |  |  |
| 9.12 | Adequate lighting is available for work to be carried out at the workshop. |  |  |

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| 10 Fixed Plant |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 10.1 | Fixed plant drives and moving parts are suitably guarded. |  |  |
| 10.2 | Fixed plant has walkways and platforms. |  |  |
| 10.3 | The walkways and platforms provide access to major items for both operation and maintenance. |  |  |
| 10.4 | Guard railing is provided for walkways and platforms. |  |  |
| 10.5 | Items of fixed plant have a primary isolator. |  |  |
| 10.6 | The items of fixed plant have a local isolator. |  |  |
| 10.7 | The isolation switches are labelled. |  |  |
| 10.8 | The isolation switches have provision for securing isolation tags. |  |  |
| 10.9 | The hazards associated with the manual cleaning of fixed plant have been identified. |  |  |
| 10.10 | Procedures for the manual cleaning of fixed plant ensure that where a hazard exists the plant directly involved is stopped. |  |  |

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