# Mining operations and mobile equipment selection audit Site: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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| 1 Selection of equipment |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 1.1 | The mobile equipment is selected according to the limitations imposed by the site operating conditions. |  |  |
| 1.2 | The selected mobile equipment can be used within its design specifications. |  |  |
| 1.3 | The employer has established a system to identify hazards associated with mobile equipment and assessed the exposure risk. |  |  |
| 1.4 | The suitability of the mobile equipment used by short and long term contractors is reviewed by the principal employer. |  |  |
| 1.5 | The employer has reviewed the risk rating of mobile equipment. |  |  |
| 1.6 | Vehicle cab design, layout, orientation and seating are suited to the expected conditions and use. |  |  |

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| 2 Equipment safety requirements  |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 2.1 | Effective reversing alarms are fitted to mobile equipment. |  |  |
| 2.2 | Items of mobile equipment are equipped with suitable and effective service and park brakes. |  |  |
| 2.3 | Motor vehicles are equipped with effective headlights, brake lights, reversing lights, tail lights and turn indicators. |  |  |
| 2.4 | Operating controls are suitably and legibly identified. |  |  |
| 2.5 | Light vehicles with an internal cargo space are equipped with cargo barriers. |  |  |
| 2.6 | Audible warning devices which can be sounded prior to vehicle movement are provided on mobile equipment where required. |  |  |
| 2.7 | Flashing lights are provided, are effective and operating on all light service vehicles, vehicles used to transport personnel and slow moving vehicles at the mine. |  |  |
| 2.8 | Motor vehicles are equipped with devices to improve vision in “blind spots”. |  |  |
| 2.9 | Adequate provision has been made to always allow three points of contact when accessing and egressing mobile equipment. |  |  |
| 2.10 | Adequate provision is made for fall prevention measures to always be taken when carrying out cleaning or maintenance operations from a height on mobile equipment. |  |  |
| 2.11 | Mobile equipment is provided with identification markings of a suitable size that allows identification of the vehicle. |  |  |
| 2.12 | All motor vehicles are equipped with adequate seating for all personnel. |  |  |
| 2.13 | Seats are fitted with head restraints where appropriate or required by the Australian Design Rules (ADR). |  |  |
| 2.14 | Motor vehicles are equipped with seat belts for all personnel seating positions. |  |  |
| 2.15 | Elevated flag indicators are installed on light vehicles which operate in the vicinity of large mobile equipment. |  |  |
| 2.16 | Enhanced visibility reflectors or devices (e.g. high mounted tail, brake and turn indicator lights) are fitted on all appropriate light vehicles. |  |  |
| 2.17 | Earth moving machinery, modified earthmoving machinery (including water carts and service vehicles) and agricultural tractors are equipped with a roll-over protection structure (ROPS/FOPS) conforming to the applicable Australian Standards or equivalent standards. |  |  |
| 2.18 | Collision avoidance technology has been investigated for relevant mobile equipment and a risk assessment undertaken. |  |  |
| 2.19 | Driver monitoring for fatigue is undertaken. |  |  |
| 2.20 | Regular monitoring of driver performance is undertaken. |  |  |
| 2.21 | Two-way communication is available for use in all mobile equipment. |  |  |
| 2.22 | Overhead protective devices are installed on all mining equipment that is fitted with operator controls on the machine, including drills, trucks, loaders, bulldozers and excavators; and all service units which are operated in stopes and in the mining of development headings. |  |  |
| 2.23 | Hand held fire extinguishers appropriate to the fire risk for the vehicle are installed, easily accessible and properly maintained on all mobile equipment. |  |  |
| 2.24 | There is a formal system in place to review all fire hazards to large mobile equipment with the associated risks of fire having been assessed on mobile equipment >125 kW. |  |  |
| 2.25 | The automatic fire suppression system installed has been inspected and/or tested according to the OEM requirements. |  |  |
| 2.26 | Where mobile equipment poses a risk of entrapment a second means of safe egress is provided. |  |  |
| 2.27 | Safety fittings (e.g. double safety chain attachments and brake light connections) are fitted on all vehicles used to tow trailers. |  |  |
| 2.28 | Mobile cranes are equipped with a pre-warning bumper and taglines. |  |  |
| 2.29 | Mobile equipment cabins are provided to protect drivers from hazardous working environments including cold, heat, dust, fumes and excessive noise and vibration. |  |  |
| 2.30 | Appropriate guarding is fitted to mobile equipment to prevent injury. |  |  |

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| 3 Procedures and training |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 3.1 | The designer, manufacturer, importer or supplier of mobile equipment has provided the employer with current operating manuals. |  |  |
| 3.2 | The operating manual provided to the mine is readily available to all operators of that equipment. |  |  |
| 3.3 | There is a standard operating procedure (SOP) and/or training manual developed for each type of mobile equipment in use. |  |  |
| 3.4 | Defensive driving training is provided for all operators of mobile plant and light vehicles where required. |  |  |
| 3.5 | The SOP specifies and documents the safe use of communication equipment, including two-way radios and mobile phones. |  |  |
| 3.6 | The SOP covers any site-limiting conditions (e.g. ramp angles and turning radius) |  |  |
| 3.7 | The SOP requires that machinery pre-start checks are carried out on all mobile equipment prior to use. |  |  |
| 3.8 | The SOP and machinery pre-start check prohibits the use of mobile equipment in a mine where defective equipment presents an unacceptable risk (i.e. brakes, steering, warning signal, lights and seat belts are not in working order). |  |  |
| 3.9 | The SOP includes a method of reporting operational faults on mobile equipment that occurs during shift. |  |  |
| 3.10 | The SOP identifies a method for removing defective mobile equipment from service until rectified, e.g. an out of service tag. |  |  |
| 3.11 | The SOP provides for the cleaning of mobile equipment. |  |  |
| 3.12 | The SOP documents the safe methods for dealing with adverse weather conditions. |  |  |
| 3.13 | The SOP covers emergency driving conditions and what to do in the event of a vehicle breakdown (e.g. brake failure, steering failure and tyre blow out). |  |  |
| 3.14 | The SOP documents the safe methods for dealing with fires, including tyre fires on or about mobile equipment. |  |  |
| 3.15 | The SOP documents the safe methods for dealing with overhead powerline contacts. |  |  |
| 3.16 | The SOP documents the safe method of work to be followed for fully loaded downhill haulage of materials. |  |  |
| 3.17 | An standard procedure has been developed where the presence of voids or holes, due to underground workings or known rock characteristics, pose a risk to mobile equipment and operators. |  |  |
| 3.18 | The SOP documents the safe method and locations for parking equipment on slopes. |  |  |
| 3.19 | The SOP does not permit unattended vehicles underground to be left running and requires parked mobile equipment to be electrically isolated. |  |  |
| 3.20 | The SOP documents the safe methods and locations for driver exchanges and/or hot seat changes. |  |  |
| 3.21 | The SOP documents a vehicle hierarchy where the basic WA road rules do not apply. |  |  |
| 3.22 | The procedures document the safety rules for ensuring fitness for work. |  |  |
| 3.23 | The procedure documents the safe methods for identifying and dealing with operator fatigue. |  |  |
| 3.24 | The procedure documents safe methods for identifying and dealing with operator distractions. |  |  |
| 3.25 | The SOP is reviewed and updated whenever new equipment is supplied. |  |  |
| 3.26 | All personnel are inducted, receive site familiarisation, and are trained and assessed as competent for mobile equipment operations. |  |  |
| 3.27 | Only operators with a pit permit are authorised to operate mobile equipment in the open pit area. |  |  |
| 3.28 | Compliance with procedures is regularly checked by management. |  |  |
| 3.29 | Periodic re-assessments of driver skills and behaviour occur. |  |  |
| 3.30 | The training, assessment and periodic re-assessment records are documented and retained |  |  |

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