# Health control plan

1. **AIM:** The aim of our health control plan is to set out how the health of quarry workers will be managed with respect to health hazards, what controls will be put in place, what health hazards will be monitored, how exposure to quarry workers will be monitored and how health records will be maintained.
2. **WHAT:** The initial site inspection that was conducted under Program 5: Risk management, has been used as the starting point to assess whether our site has any work health hazards. The principal hazard management plan for dust and other airborne contaminants in Program 19 has also be used. The health hazards that are included in this plan are:

* Dust and other airborne contaminants
* Noise
* Vibration and ergonomics
* Radiation, heat stress and cold
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Fitness for work (fatigue, alcohol and drugs)

If health hazards are identified while carrying out the initial broadbrush risk assessment, from Program 5, health hazards are identified, then Form 7A will be used to conduct an in-depth analysis of each health hazard.

In addition to the controls confirmed in Form 7A, the following guiding principles will be adopted for managing health hazards on site:

**Personal protection equipment (PPE):** All quarry workers, contractors and visitors shall comply with the minimum PPE standards set out in the site rules.

**Health hazards (dust, noise, vibration, ergonomics, radiation, heat stress and cold):** The identification and assessment of health hazards will be embedded in the way that we do work. Wherever a worker or contractor is required to undertake a risk-based approach to their work they will consider the effect of health hazards in relation to their workplace.

Supervisors will monitor workers and contractors to ensure that the agreed controls identified in Form 7A are being implemented and where required they will record the results of their observations on various inspection sheets.

1. **WHO:** The following person is nominated to be responsible for completing the health hazard management matric (Form 7A)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (nominated person).
2. **HOW:**

Health hazards:

By completing the *Health hazard management matrix* (Form 7A) we will confirm a control and monitoring program for each of the identified hazards.

Once the control and monitoring program is developed, the site inspection sheet used in Program 6 (Form 6B) will be modified to include a control checklist for the health hazards to ensure controls are maintained.

Immediate controls that are required will be entered onto an action plan or in the daily diary.

Fitness for work:

Our mine is committed to ensuring that all quarry workers are safe from the harmful effects of drugs, alcohol and fatigue. We aim to ensure that all quarry workers are in a healthy physical and mental state that will allow them to fulfil their duties without putting themselves or others at risk. We have a zero tolerance to alcohol and other drugs. The following prohibitions apply to our site:

* A person must not be in or on our premises while adversely affected by intoxicating liquor or drugs.
* Individuals may be directed to immediately leave the workplace if it is the opinion of the supervisor that an individual is adversely affected by intoxicating liquor or drugs. The mine operator will ensure that the effected person is escorted where their physical state may put others or themselves at risk.
* It is mandatory for a worker, contractor or visitor to comply with these instructions.
* The possession, distribution or selling of alcohol or illicit substances on the site is strictly prohibited.

Drug and alcohol testing may be conducted for pre-employment purposes, as part of incident or accident investigations or randomly as part of a program to maintain a hazard free work environment.

Should people be taking prescribed medication that may affect their ability to operate equipment, it is a requirement of the mine operator that the supervisor is informed.

Fatigue:

Fatigue can result from long work hours, shift work, travel, hot working conditions, overwork, insufficient sleep, insufficient relaxation time or stress.

Workers will be made aware of the symptoms and causes of fatigue and their responsibilities with respect to managing fatigue during their induction.

To help determine if any risks of fatigue exist at our site, we will use Form 7B fatigue checklist to promote discussion with our workers. If the form identifies any elevated outcomes further discussion with workers will be undertaken and additional controls will be implemented.

Workers (including contractors) must advise their supervisor before starting work if fatigue may influence their ability to carry out their work safely.

Once the supervisor is advised, the worker and supervisor will initiate a plan to manage the worker’s fatigue to reduce the risk to the lowest practicable level.

1. **WHEN:** The *Health hazard management matrix* (Form 7A) will be completed at the start of mining operations or during the development of our health control plan.

Health hazards:

**Inspections:** The frequency of ongoing health hazard inspections will be as per the schedule for workplace inspections (the health hazard issues will be included on the workplace inspection checklist).

**Monitoring:** If personal exposure monitoring is continuing as an ongoing program the frequency of the monitoring program will be as per the frequency determined in the *Maintenance of controls* column of FORM 7A.

Health monitoring:

The purpose of health monitoring is to identify any changes in a person’s health status due to their exposure to a particular hazard. Our health monitoring program may include:

* physical monitoring to evaluate any effects of the work environment
* a medical examination to evaluate the presence of early or long-term health effects (can include lung function test and chest X-ray, audiometric testing, general physical assessment, skin check.)
* drug and alcohol testing.

Health monitoring will be carried out according to the schedule in the column *Health surveillance* of FormM 7A.

1. **ACTION:** The following person is nominated if anyone becomes aware of a health hazard\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (nominated person).

The person identifying the hazard will apply our site’s risk assessment process and will act according to its outcome.

1. **DOCUMENT CONTROL:** All documentation relating to the program (e.g. Form 7A) will be filed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(location of filing system).

Any health monitoring information will be treated as strictly confidential and will be filed on the employee’s personal file, using the ‘health surveillance register’.

All personal health monitoring records will be kept for 30 years as per the requirements of WHS legislation.

# Form 7A Health hazard management matrix

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| Hazard | Record each task where the hazard is present  th?u=https%3a%2f%2fcdn | | | Note - exposure standard | Results of any testing or exposure monitoring | Severity  Health consequence | Current controls  Record what controls you have implemented  th?u=https%3a%2f%2fcdn | | Maintenance of controls  1. Inspections | Health  surveillance |
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| *Dust &*  *fume* | *Drill and blast*    *Crushing and/or screening*  *Drying & bagging*  *Loading of trucks*  *Stockpiles*  *Roads & traffic*  *Maintenance activities*  *Welding & cutting*  *Chemical fume*  *Contractors* | |  | *Personal dust monitoring*  *max allowable concentrations:*  *NOHSC*  *Inhalable :10 mg/cu m*  *Respirable:3 mg/cu m*  *Silica: 0.05 mg/cu m*  *Also consider -*   * *Naturally occurring asbestos* * *Welding fume* * *Fume from chemical exposure* | *Record silica (SiO2) content of rock (petrographic analysis)*  *\_\_\_\_\_\_\_\_\_\_\_\_ %*  *(If SiO2 is greater than 5 %, high level controls must be considered.*  *Is baseline personal monitoring required? (if SiO2 is > 5 % suggest yes)*  *(yes/no) \_\_\_\_\_\_\_\_*  *Record results of baseline monitoring.*  *(if completed)*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* | *e.g.*   * *Silicosis* * *Pulmonary infection* * *Skin irritation* * *Mesothelioma (asbestosis)* | * *Dust generating sources are enclosed* * *Pressurised cabins on mobile equip,* * *Cabins are regularly maintained (air filters)* * *Road surfaces are maintained* * *Speed limits in place* * *Trucks covered leaving site* * *Water cart or sprinklers* * *Housekeeping standards* * *Extraction systems have been installed* * *Sprinklers on crushing and screening plant* * *Transfer points covered* * *Persons isolated from dust sources* * *Raw feed is watered down* * *Wash down procedures in place for maintenance* * *Appropriate respirable protective equipment (RPE) used* * *PPE (dust) masks used* * *Training provided to workers* * *Supervision in place* |  | ***Inspections (frequency):***  *Daily, Weekly, Monthly?*  *Record when controls will be inspected and by whom*  *\_\_\_\_\_\_\_\_\_\_\_\_\_ (when)*  *\_\_\_\_\_\_\_\_\_\_\_\_\_ (who)*  ***Personal exposure monitoring (frequency):***  *If ongoing monitoring is required record when it will be completed.*  *Frequency \_\_\_\_\_\_\_\_\_\_\_\_* | *All people who have been determined to have a significant risk to their health due to exposure to a hazardous chemical in Schedule 14 of WHS Regs 2017 will be included in the health surveillance program.*  *During personal monitoring if a person is exposed to greater the 50 % of the national standard for exposure to a hazardous chemical then they will be included in the health monitoring plan.*  *If during the course of monitoring (baseline or ongoing) a national exposure standard is exceeded the regulator will be notified.* |

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| Hazard | Record each task where the hazard is present  th?u=https%3a%2f%2fcdn | | | Note - exposure standard | Results of any testing or exposure monitoring | Severity  Health consequence | Current controls  Record what controls you have implemented  th?u=https%3a%2f%2fcdn | | Maintenance of controls  1. Inspections | Health  surveillance |
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| *Noise* | *Crushing and/or screening*  *Mobile plant*  *Loading of trucks*  *Roads & traffic*  *Maintenance activities*  *Welding & cutting*  *Drill and blast* | |  | *Cl 56 WHS Reg 2017*  *A total (continuous) noise that exceeds 85dB when averaged over an 8-hour period (known as 85dB(A) or*  *A noise that exceeds a peak noise level of 140 dB(C)*  *No persons should be exposed to noise levels that exceed these exposure standards.* | *Is a baseline noise assessment required to establish that persons are not exposed to levels exceeding the standard?*  *(yes/no) \_\_\_\_\_\_\_\_\_*  *Record results of baseline monitoring.*  *(if completed)*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* | *e.g.*   * *Reduction in hearing capability* * *Acoustic trauma* * *Permanent hearing loss* * *Headaches* * *Tinnitus* | * *Noise sources have been enclosed where possible* * *Workers are isolated from noise sources (cabins)* * *Plant automation to remove worker from area* * *Acoustic barriers are in place* * *Designated high noise areas are separated from general work areas* * *Background noise is reduced in common areas (lunch rooms, offices)* * *Substitute with low noise generating equipment (tools)* * *Installation of low noise generating surfaces (mats, insulation)* * *Warning sirens and alarms are strategically located* * *Chutes have been lined and/or enclosed* * *Rotate workers* * *Training provided to workers* * *Signage in place to indicate PPE requirements* * *Hearing protection is used* * *Supervision in place* |  | ***Inspections (frequency):***  *Daily, weekly, monthly?*  *Record when controls will be inspected & by who*  *\_\_\_\_\_\_\_\_\_\_\_\_\_ (when)*  *\_\_\_\_\_\_\_\_\_\_\_\_\_ (who)*  ***Personal exposure monitoring (frequency):***  *If ongoing monitoring is required record when it will be completed.*  *Frequency \_\_\_\_\_\_\_\_\_\_\_\_* | *All persons who are frequently required to wear PPE to protect them from the risk of hearing loss associated with noise that exceeds the exposure standard are required to be included in the health monitoring program.*  *Cl 57 WHS Reg 2017 requires audiometric testing to be performed within 3 months of the worker commencing work and in any event at least every two years.*  ***(all businesses are exempted until Jan 2019)*** |

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| Hazard | Record each task where the hazard is present  th?u=https%3a%2f%2fcdn | | | Note - exposure standard | Results of any testing or exposure monitoring | Severity  Health consequence | Current controls  Record what controls you have implemented  th?u=https%3a%2f%2fcdn | | Maintenance of controls  1. Inspections | Health  surveillance |
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| *Vibration*  *&*  *ergonomics* | *Crushing and/or screening*  *Mobile plant*  *Roads & traffic*  *Maintenance Activities*  *Welding & cutting*  *Use of hand tools*  *Contractors* | |  | *No Australian workplace*  *exposure standard exists, however the European Union has an established exposure value of A(8) which should not exceed 2.5 mm/sec2*  *[Require competent person to conduct measurements and include duration of use]*  *Examples –*  *Angle grinder small 4mm/sec2*    *Chain saw 6 mm/sec2*  *Hammer drills 9mm/sec2- 20mm/sec2*  *- continuous*  *- impulsive*  *- intermediate* | *Record results of any vibration monitoring.*  *(if completed)*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* | *e.g.*   * *Hand/arm vibration (HAV)* * *Whole of body vibration (WBV)* * *Tingling and numbness in fingers* * *White finger* * *Carpel tunnel syndrome* * *Musculoskeletal disorders* * *Internal organ discomfort.* * *Vision impairment* | * *Isolate workers from the workplace (control rooms)* * *Remote control equipment* * *Vibration stabilising footings* * *Floor matting* * *Fit for purpose seats on mobile plant* * *Maintenance of road surfaces* * *Rotating workforce* * *Scheduling high vibration producing activities* * *Selection of handheld equipment* * *Equipment well maintained* * *Storage areas designed to reduce manual handling* * *Vibration considered in PPE selection* * *Training provided to workers* * *Supervision in place* |  | ***Inspections (frequency):***  *Daily, weekly, monthly?*  *Record when controls will be inspected & by who*  *\_\_\_\_\_\_\_\_\_\_\_\_\_ (when)*  *\_\_\_\_\_\_\_\_\_\_\_\_\_ (who)*  ***Personal exposure monitoring (frequency):***  *If ongoing monitoring is required record when it will be completed.*  *Frequency \_\_\_\_\_\_\_\_\_\_\_\_* | *Physical completed as part of regular health check* |

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| Hazard | Record each task where the hazard is present  th?u=https%3a%2f%2fcdn | | | Note - exposure standard | Results of any testing or exposure monitoring | Severity  health consequence | Current controls  Record what controls you have implemented  th?u=https%3a%2f%2fcdn | | Maintenance of controls  1. Inspections | Health  surveillance |
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| *Radiation*  *Heat Stress*  *Cold* | *Outdoor work environment*  *Operation of mobile plant*  *Maintenance activities*  *Welding & cutting*  *Contractors* | |  | *No specific exposure standard;*  *In addition to air temp, must consider*   * *Humidity* * *Amount of air movement* * *Radiant temp* * *Clothing being worn* * *Type of activity* * *Physical fitness*   *Ideal temp for sedentary work is between 20-26 degrees Celsius, depending on the time of year and clothing being worn.* | *Record results of any work environment temp monitoring.*  *(if completed)*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* | *e.g.*   * *Physical discomfort* * *Heat stroke* * *Heat exhaustion* * *Heat cramps* * *Hypothermia* * *Headache* * *Dizziness* * *Sunburn* * *Skin irritation* | * *Wearing long pants and shirts* * *Wear wide brimmed hat* * *Use sunscreen* * *Tinted windows* * *Airconditioned workplace* * *Regular breaks are available when working in direct sunlight, hot days or cold days* * *Rotation of work activities available* * *Adequate supply of potable water supply available* * *Amenities or shaded areas for lunch and other breaks are available* * *Amenities have available heating* * *Awareness training provided to workers* * *PPE supplied and worn* * *Supervision in place* |  | *Inspections (frequency):*  *Daily, weekly, monthly?*  *Record when controls will be inspected and by whom*  *\_\_\_\_\_\_\_\_\_\_\_\_\_ (when)*  *\_\_\_\_\_\_\_\_\_\_\_\_\_ (who)*  *Other information:*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* | *Skin check to be included in general health check* |

Form 7B Fatigue checklist

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| **Mental and physical work demands** | |
| Does anyone carry out work for long periods which is physically demanding?  (for example, tasks which are especially tiring and repetitive such as labouring work, bagging, spillage clean up) | Yes/No |
| Does anyone carry out work for long periods which is mentally demanding?  (for example, work requiring vigilance, work requiring continuous concentration and minimal stimulation, work performed under pressure, work to tight deadlines, emergency call outs, interacting/dealing with the public) | Yes/No |
| **Work scheduling and planning** | |
| Does anyone consistently work or travel between midnight and 6am? | Yes/No |
| Does the work schedule prevent workers having at least one full day off per week? | Yes/No |
| Do work practices include on-call work, call-backs or sleepovers? | Yes/No |
| Does anyone have to travel more than one hour to get to their job? | Yes/No |
| **Work time** | |
| Does anyone work more than 12 hours regularly (including overtime)? Or does anyone work more than 48 hours a week? | Yes/No |
| Does anyone have less than 10 hours break between each shift? (for example, split shifts, quick shift changeovers) | Yes/No |
| **Environmental conditions** | |
| Is work carried out in harsh or uncomfortable conditions? (for example, hot, humid or cold temperatures) | Yes/No |
| Does anyone work with plant or machinery that vibrates? | Yes/No |
| Is anyone consistently exposed to loud noise? | Yes/No |
| **Non-work factors** | |
| Are workers arriving at work fatigued? | Yes/No |
| **If the answer is yes to any of the questions, fatigue risks may need to be further assessed and control measures implemented, using Program 5 Risk management** | |