# Risk management

1. **AIM:** The aimof this program is to develop a process that facilitates ongoing identification of hazards, to rank the risks of these hazards, implement controls to remove or reduce the risk to the lowest practicable level and review these hazards to ensure they are maintained at the lowest reasonable risk.
2. **WHAT:** The risk management process will be used to consistently identify hazards at our mine by way of applying the process to all our activities. This is done by way of the following:

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| --- | --- |
| * Reporting hazards immediately as found
 | (FORM 6E or Daily Diary) |
| * Agenda item at safety meeting and toolbox talks
 | (FORM 4A) and (FORM 4B) |
| * Regular workplace inspections
 | (FORM 6B)  |
| * Safe work method statements, high risk permits and informal risk assessments
 | (FORM 8A, 8B, 8D)(Take 5) |
| * Reviewing hazards with contractors during inductions
* Development of principal hazard management plans (PHMP) and principal control plans (PCP)
 | (FORM 13 C)(FORMS in Section 10,11, 19) |

1. **WHO:** The risk management program will be used by all people who work at our mine. It is the responsibility of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(nominated person) to explain to the workers and contractors the importance of using our risk management program and to ensure that each person has an appropriate level of training in the risk management program. The site inspection will be carried out by using ‘workplace inspection form’ (Form 6B or 6D) as the centrepiece of our risk management program. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(nominated person) and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(nominated person). They will conduct a whole of site hazard identification process as the first step in developing our safety management system.
2. **HOW:** Once we have identified our potential hazards we will apply our risk assessment program to these hazards. This consists of systematically assessing the hazards against our risk matrix, which determines the appropriate response required to protect the health and safety of workers on site.

Risk assessment rating

Risk = Likelihood (probability) x consequence

|  |  |
| --- | --- |
| Step 1 Assess the | Step 2 Assess the |
| Likelihood | Consequences |
| L1 | Happens every time we operate | Almost Certain | Common or repeating occurrence | C1 | Fatality | Catastrophic |
| L2 | Happens regularly (often) | Likely | Known to have occurred “has happened” | C2 | Permanent disability | Major |
| L3 | Has happened (occasionally) | Possible | Could occur or “heard of it happening” | C3 | Medical/hospital or lost time | Moderate |
| L4 | Happens irregularly (almost never) | Unlikely | Not likely to occur | C4 | First aid or no lost time | Minor |
| L5 | Improbable (never) | Rare | Practically impossible | C5 | No injury | Insignificant |

Risk assessment matrix

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Risk RankLikelihood x Consequence | L1 Almost Certain | L2 Likely | L3 Possible | L4 Unlikely | L5 Rare |  |  |  |
| C1 Catastrophic | 1 | 2 | 4 | 7 | 11 |  | RISK RATING |
| C2 Major | 3 | 5 | 8 | 12 | 16 |  | High Risk | 1 – 6 |
| C3 Moderate | 6 | 9 | 13 | 17 | 20 |  | Medium Risk | 7 – 15 |
| C4 Minor | 10 | 14 | 18 | 21 | 23 |  | Low Risk | 16 – 25 |
| C5 Insignificant | 15 | 19 | 22 | 24 | 25 | *(Note: we conduct our risk assessment with the current controls in place)* |

Controlling the hazard

Once the hazard has been identified and risk rated, the following action must be taken. It is essential that we place the highest possible control once we have identified the hazard, as per the hierarchy of controls.

|  |  |  |
| --- | --- | --- |
| HIGH RISK |  | * Stop work
* Barricade area or take short-term action
* Select highest possible control within your capabilities
* Immediately notify supervisor
* Record in daily diary / hazard form
* Fix within \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Discuss at next safety meeting
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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| --- | --- | --- |
| MEDIUM RISK |  | * Take short term action
* Select highest possible control within your capabilities
* Notify supervisor at end of shift
* Record in daily diary / hazard form
* Fix within \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Discuss at next safety meeting
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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|  |  |  |
| --- | --- | --- |
| LOW RISK |  | * Select highest possible control within your capabilities
* Fix within \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Review during next workplace inspection to ensure still low
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |
|  |

Hierachy of controls

When we select a control for an identified hazard, we will always choose the highest measure of control possible.

|  |  |  |
| --- | --- | --- |
| *Best Control* | **Elimination**  | *Is it possible to eliminate the hazard altogether?* |
|  | **Substitution**  | *Is it possible to replace the substance or, equipment with something less hazardous?* |
|  | **Isolation**  | *Is it possible to stop persons from interacting with the hazard eg machine guarding, remote handling?* |
|  | **Engineering**  | *Where people have to interact with a hazard, is it possible to engineer a less hazardous solution eg stairs instead of a ladder, ventilation devices, refuel machinery from the ground?* |
|  | **Administrative**  | *Is it possible to lessen the exposure of people through changing the way the job is done, rotating people through the job, administrative controls such as training, high risk permits?* |
| *Worst Control* | **PPE**  | *Last resort – is PPE appropriate to the type, level of hazard and has it been selected correctly?* |

If no single control is sufficient, a combination of the above controls will be put in place to minimise the risk to the lowest level that is reasonably practical.

1. **WHEN:** This process of identifying hazards, assessing risk and implementing controls underpins all of our programs and will be applied to all of our work. Many of our documents include our risk rating categories e.g. workplace inspection (Form 6B), contractor and visitor induction (Form 13C).

All people on site will apply these categories when formally assessing hazards or during their normal work practice.

Risk assessments should be undertaken if one of the following events occurs:

* before setting up and using any new premises as a place of work
* when planning work processes
* before installation, erection, commissioning or alteration of plant
* whenever changes are made to:
* the workplace
* the system or method of work (SWMS)
* before hazardous substances are introduced into a place of work
* when new or additional health and safety information relevant to our business becomes available. e.g. safety alerts
1. **ACTION:** If during the course of any normal activity on site, any person is made aware of a hazard, then that person will apply our sites risk management strategy and will take the necessary actions to reduce the hazard to the lowest practicable level. If a person identifies a hazard and is not able to control the hazard immediately then it should be reported.
2. **DOCUMENT CONTROL:** The concept of risk management has been included in the majority of our documentation. Therefore, all documentation will be filed as per the document control section of each program.