|  |  |
| --- | --- |
| Mine name (as listed in ACES):  | Mine operator (as listed in ACES): |
| Inspector/Mine Safety Officer name:  | Date of assessment:  |
| Inspector/Mine Safety Officer signature: | **ELIGIBLE Score =**  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Tier 3 quarry criteria | Yes or No | notes (if applicable) |
| 1 | Has five or less workers fulltime equivalent workers (FTE), including the Quarry Manager and contractors, and |  |  |
| 2 | Does not carry out any dredging or blasting (explosives) activities on the site, and |  |  |
| 3 | Does not extract more than 30,000 cubic metres of extractive material for sale or reuse per year |  |  |

\*\* If the site meets the above 3 criteria (yes to each), ***do not*** complete the rest of the profiling tool. Site is to be marked as a tier 3 quarry and a practising certificate is not required.

|  | hazard/variable identified and scoring for possible risk | score | notes |
| --- | --- | --- | --- |
|  | **Nature and complexity of the operations** |  | **Comments** |
| 1 | **Number of full-time equivalent workers engaged in mining operations\* at the mine (contractor, part time or full time)** (Scale - for each 2 workers, scoring of 1 point, 20 workers or more is a maximum scoring of 10)\*Mining operations are defined in the WHS (Mines and Petroleum Sites) Act section 7 |  |  |
| 2 | **Crushing and screening on site (up to a maximum scoring of 10)**- Basic mobile crushing and screening plant – up to 5 items (1 point for each item up to 5 for a maximum 5 points)- Large (complex) fixed or mobile crush and screen plant (6 – 10 points depending on number, size and complexity eg, a score of 10 relates to a large, hard rock metalliferous mine etc)Note: A current process flow diagram of the plant may be requested from the mine operator. |  |  |
| 3 | **Number of pieces of operating heavy mobile plant** (such as excavators, loaders, trucks and auxiliary plant (includes EWP, crane, skid steer) up to a maximum scoring of 10 (1 point for each, maximum of 10 where there are 10 or more pieces)Note: sites with extensive and complex on-site maintenance workshops for heavy plant should receive maximum 10 points |  |  |
|  | **Nature and complexity of the operations** |  | **Comments** |
| 4 | Multi shift sites (maximum scoring of 10 based on maximum scheduled/actual shifts including back shifts eg. maintenance)* Intermittent operations (1 Point)
* Mon – Fri - Single shift (2 point)
* Mon – Fri & Sat sales only (3 points)
* Mon – Fri & Regular weekend prod or maintenance (5 points)
* Mon – Fri Two shift operation (can include weekend) (e.g. day & afternoon shift) – 7 points
* Continuous shift operations - 24/7 shifts (10 points)
 |  |  |
| 5 | Continuity and output of mining operations (maximum scoring of 10 based on total excavated material, including overburden and imported material, and not just product): *(Based on previous year’s figures, unless a known disproportionate increase is going to occur)** 0 – 100 k tpa (1 point)
* 100 - 200 (2 point)
* 200 - 400 (4 point)
* 400 - 600 (6 point)
* 600 - 800 (8 point)
* > 800 (10 point)
 |  |  |
| 6 | Any processing as part of mining operations where heat or auxiliary activities is a primary energy source e.g. asphalt plant, kiln, ball mills, treatment plant (scoring of 10) |  |  |
|  | **Principal control plans** |  | **Comments** |
| 7 | Explosives used on site (scoring of 10) |  |  |
| 8 | Electricity used on site (up to a maximum scoring of 10):* generator/s - total capacity up to & incl 25 KVA, (240V & 415V) – 2 points
* generator/s - total capacity over 25 KVA, up to & incl 50 KVA – 3 points
* generator/s - total capacity over 50 KVA, up to & Incl 250 KVA – 6 points
* generator/s - total capacity over 250 KVA, up to & incl 500 KVA – 8 points
* generator/s - total capacity over 500 KVA – 10 points
* mains supply from a supply authority (240V – 3 points)
* mains supply from a supply authority (415 V – 9 points)
* mains supply from a supply authority (high voltage (11,000V) – 10 points)
* total connected load at the mine exceeds 1,000 kW – 10 points
 |  |  |
|  | **Sub Total (maximum scoring of 80)** |  |  |

|  | **PRINCIPAL HAZARD (SCORING AS PER WRAC OVER PAGE) – TO BE CONSIDERED AS UNCONTROLLED RISK** | **SCORE** | **LIKELIHOOD** | **EXPOSURE** | **COMMENTS** |
| --- | --- | --- | --- | --- | --- |
| 9 | Ground failure |  |  |  |  |
| 10 | Inundation or inrush |  |  |  |  |
| 11 | Roads and other vehicle operating areas |  |  |  |  |
| 12 | Air quality or dust or other airborne contaminant *(if > 5% SiO2 consider ‘moderate or above’)* |  |  |  |  |
| 13 | Fire or explosion |  |  |  |  |
| 14 | Any other principal hazard |  |  |  |  |
|  | **Subtotal (no maximum score – depends on the principal hazards)** |  |  |
| 15 | Other risk factors to consider where an elevated risk profile for the mine may exist (max score of 10 in total):* working at height
* confined spaces
* chemical hazards
* hazards from the mining operations that are risks to persons outside of the mine (eg. near to residential area, infrastructure used by people such as road, rail, airports etc)
* other:
 |  |  |
|  | **Subtotal (maximum 10)** |  |  |
|  | **Total (more than 90 supports requiring a certificate of competence but subject to the inspector’s qualitative assessment)** |  |  |

|  |
| --- |
| **Qualitative assessment by inspector/mine safety officer (consideration of overall mix of risk factors and hazards associated with the mining operations – no scoring):** |
|  |

|  |
| --- |
| **Inspector/mine safety officer recommendation:** Eligible OR Not Eligible (circle one/highlight) for mine specific quarry manager practising certificate**State reasons for recommendation (with any referencing):** |
|  |

**Exposure (number of people exposed to principal hazard)**

|  |  |
| --- | --- |
| 1 | 1-2 |
| 2 | 3-5 |
| 3 | 6-10 |
| 4 | 11-24 |
| 5 | 25+ |

**Likelihood (frequency of occurrence)**

|  |  |  |
| --- | --- | --- |
| A | Rare | Only occur in exceptional circumstances |
| B | Unlikely | Could occur at some time |
| C | Moderate | Should occur at some time |
| D | Likely | Probably occur in most circumstances |
| E | Almost certain | Expected to occur in most circumstances |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **A** | **B** | **C** | **D** | **E** |
| **1** | **1** | **2** | **4** | **7** | **11** |
| **2** | **3** | **5** | **8** | **12** | **16** |
| **3** | **6** | **9** | **13** | **17** | **20** |
| **4** | **10** | **14** | **18** | **21** | **23** |
| **5** | **15** | **19** | **22** | **24** | **25** |

#### Examples of scoring for WRAC

|  |  |  |
| --- | --- | --- |
| **Scenario 1** | **Scenario 2** | **Scenario 3** |
| *Quarry with 15 workers (incl. contractors) where the principal hazard of ground instability is present***Likelihood:** B Unlikely**Exposure:** 1 (1 - 2 i.e. actual number of workers to be exposed at location of hazard event i.e. not all the workers at the mine)**Risk ranking: (B1) = 2** | *Quarry with 5 workers (incl. contractors) where the principal hazard of inrush is present (river operation – known flooding)***Likelihood:** E Almost Certain**Exposure:** 2 (3 - 5 i.e. actual number of workers to be exposed at location of hazard event)**Risk ranking: (E2) = 16** | *Quarry with 30 workers (incl. contractors) where the principal hazard of air quality is present (crush & screen and high silica)***Likelihood:** D Likely**Exposure:** 5 (25+ actual number of workers to be exposed at location of hazard event e.g. everyone on site over a period of time will be exposed to dust)**Risk ranking: (D5) = 24** |

**Document control**

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| --- |
| **Amendment schedule** |
| Date | Version | Amendment |
| 3/06/2020 | 2 | Addition of tier 3 quarry criteria |

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