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| 1. Hazard Management Details – General |
| **Plant/Equipment Item: Chainsaw (Fuel)**  | **Make/Model No.:**  | **Serial No.:**  |
| **School / Work Location:**  | **Region:**  |
| **Name of Person(s) Conducting Activity:** | **Date Conducted:**       |
| **Chainsaw**   | **Description of Use:** A chainsaw is a cutting tool used to cut wooden materials such as logs or branches. A small engine drives a circular chain at speed around a fixed arm. The chain has cutting devices located at fixed intervals along its length. | **Summary of Key Risks:** **(refer to appropriate subsections)** * Entanglement
* Impact and cutting
* Ergonomics
* Noise
* Vibration
* Slips/trips/falls
* Fire and explosion
* Temperature
* Other (exhaust fumes and dust)
 |

Plant and Equipment Risk Management For

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| 2. Documentation |
| **Relevant Legislation/Standards** | **Y / N** | **Comments** |
| **Is plant required to be registered?** | Y [ ]  N[x]   |  |
| **Is a user license required?** | Y [ ]  N[x]   |  |
| **Key Reference material**  |  | AS 2726.1 Chainsaws - Safety requirements - Chainsaws for general use AS 2726.2 Chainsaws - Safety requirements - Chainsaws for tree serviceAS 2727 Chainsaws- Guide to safe working practicesAS 4024.1 Safety of machinery |
| **Plant Documentation** | **Y / N** | **Comments** |
| **Are operator’s manuals accessible?** | Y [x]  N[ ]   |  |
| **Is this a restricted use item?** | Y [ ]  N[x]   |  |
| **Does this item require safe use documents/test?** | Y [ ]  N*[x]*   |  |

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| 3. Hazard Identification |  |
| **Hazards Inspected** | **Risk Assessment** | **Description of Risk** | **Control Measures** |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **ENTANGLEMENT**Can anyone’s hair, clothing, gloves, cleaning brushes, tools, rags or other materials become entangled with moving parts of the plant or materials? | Y [x]  N[ ]  | Major | Possible | High | Long hair, items of clothing or other materials could become entangled with the moving parts. | Ensure that clothing, gloves, or other such items are kept clear of the moving parts when in use.* Overalls can be used to restrict loose clothing.
* Ensure gloves are well fitted.

Plan your work, ensure that work area is obstacle-free and, in case of felling, and identify an escape path from falling trees. |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **IMPACT AND CUTTING INJURIES**Can anyone be crushed/cut/struck etc. due to: |  |  |  |  | The chain saw blade may become stuck creating significant torque with the potential for unexpected movement of the plantBranches, tree trunks etc. may not fall to the ground in the direction intended.Chips and dust may fly into the face and eyes of the operator.Poorly fitted, maintained or damaged saw blades increases the risk to the user.The exposed moving parts present a risk to the operator’s hands and body parts. | Ensure operator’s hands and body parts are kept clear of moving parts during operation and maintenance.Ensure that operator has been trained in safe work practices and has appropriate PPE. For example:* Helmet with face visor or safety glasses
* Ear protection
* Protective overalls
* Closed footwear with good grip

Ensure the equipment is appropriately maintained and serviced regularly in accordance with manufacturer’s instructions.Ensure the chain saw is provided with a front hand guard. In a kickback situation (where the saw jumps or jerks up or backwards) this guard helps protect the operator’s left hand or other parts of his/her body. |
| * Material falling off the plant?
 | Y [ ]  N[x]  |  |  |  |
| * Uncontrolled/unexpected movement of plant/load?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Lack of capacity to slow, stop or immobilise plant?
 | Y [ ]  N[x]  |  |  |  |
| * The plant tipping or rolling over?
 | Y [ ]  N[x]  |  |  |  |
| * Parts of the plant disintegrating or collapsing?
 | Y [ ]  N[x]  |  |  |  |
| * Contact with moving parts during testing, inspection, operation, maintenance, cleaning or repair?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Being thrown off or under the plant?
 | Y [ ]  N[x]  |  |  |  |
| * Contact with sharp or flying objects? (e.g. work pieces being ejected)
 | Y [x]  N[ ]  | Moderate | Possible | Medium |
| * The mobility of the plant?
 | Y [ ]  N[x]  |  |  |  |
| * Inappropriate parts and accessories being used?
 | Y [ ]  N[x]  |  |  |  |
| * Other
 | Y [ ]  N[x]  |  |  |  |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **SHEARING**Can anyone’s body parts be sheared between two parts of plant, or between a part of the plant and a work piece or structure? | Y [ ]  N[x]  |  |  |  |  |  |
| **PRESSURISED CONTENT**Can anyone come into contact with fluids or gases under high pressure, due to plant failure or misuse of the plant? | Y [ ]  N[x]  |  |  |  |  |  |
| **ELECTRICITY**Can anyone be injured or burnt due to: |  |  |  |  |  |  |
| * Live electrical conductors? (*e.g.* exposed wires)
 | Y [ ]  N[x]  |  |  |  |
| * Working in close proximity to electrical conductors?
 | Y [ ]  N[x]  |  |  |  |
| * Access to electricity?
 | Y [ ]  N[x]  |  |  |  |
| * Damaged or poorly maintained electrical leads, cables or switches?
 | Y [ ]  N[x]  |  |  |  |
| * Water near electrical equipment?
 | Y [ ]  N[x]  |  |  |  |
| * Lack of isolation procedures?
 | Y [ ]  N[x]  |  |  |  |
| * Other
 | Y [ ]  N[x]  |  |  |  |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **ERGONOMICS**Can anyone be injured due to: |  |  |  |  | The use of the chain saw may involve repetitive body movements, awkward positions and the need for excessive effort. | Conduct a risk assessment in relation to awkward postures and manual handling risk prior to undertaking task.Ensure the operator uses good manual handling techniques whilst operating the chainsaw.**DO NOT** cut above shoulder height.Hold the chain saw firmly with both hands and maintain a secure grip to avoid kickbacks.  |
| * Poorly designed workstation?
 | Y [ ]  N[x]  |  |  |  |
| * Repetitive body movement?
 | Y [x]  N[ ]  | Minor | Unlikely | Low |
| * Constrained body posture or the need for excessive effort?
 | Y [x]  N[ ]  | Moderate | Possible | Medium  |
| * Design deficiency causing psychological stress?
 | Y [ ]  N[x]  |  |  |  |
| * Inadequate or poorly placed lighting?
 | Y [ ]  N[x]  |  |  |  |
| * Does the plant impact on the surrounding workplace and create potential hazards? (Consider potential impact on the design and layout of the workplace)
 | Y [x]  N[ ]  | Minor | Possible | Medium |
| * Is the location of the plant inappropriate? (Consider potential effects due to environmental conditions and terrain)
 | Y [ ]  N[x]  |  |  |  |
| * Other
 | Y [ ]  N[x]  |  |  |  |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **RADIATION**Can anyone using the plant, or in the vicinity of the plant suffer injury or illness due to exposure to radiation in the form of any of the following:* infra-red radiation
* ultra violet light
* microwaves
 | Y [ ]  N[x]  |  |  |  | Operation of the plant equipment can result in high noise levels.The vibration from chainsaws can cause damage to the hands if they are used for long periods at a time. | Ensure appropriate hearing protection is worn whilst operating the chain saw.Use a chainsaw with anti-vibration mountings and ergonomically angled handles.Take regular breaks from continuous operation.Wear appropriate PPE (e.g. gloves) especially in cold weather.Sharpen the chainsaw regularly to ensure smoother cutting and less vibration. |
| **NOISE**Can anyone using the plant, or in the vicinity of the plant, suffer injury due to exposure to noise? | Y [x]  N[ ]  | Moderate | Possible | Medium |
| **VIBRATION**Can anyone be injured or suffer ill health from exposure to vibration? | Y [x]  N[ ]  | Moderate | Possible | Medium |
| **FRICTION**Can anyone be burnt due to contact with moving parts, materials or surfaces of the plant? | Y [ ]  N[x]  |  |  |  |  |  |
| **SUFFOCATION**Can anyone be suffocated due to lack of oxygen, or atmospheric contamination?  | Y [ ]  N[x]  |  |  |  |  |  |
| **CONDITION**Is a hazard likely due to the age and condition of the plant? (*Consider how hard the machine has been worked, and whether it is used constantly or rarely).* | Y [ ]  N[x]  |  |  |  |  |  |
| Can anyone be injured as a result of the plant not serviced appropriately and/or maintained in line with manufacturer’s recommendations? | Y [ ]  N[x]  |  |  |  |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **SLIPS/TRIPS/FALLS**Can anyone using the plant, or in the vicinity of the plant, slip, trip or fall due to: |  |  |  |  | Due to the uncontrolled outdoor environment and diverse range of circumstances that the chain saw may be operated in, there is a slip, trip and fall risk to the operator. | Operator to inspect work environment for hazards prior to commencing work. Ensure the chain saw comes to a complete stop before moving or placing the chainsaw down.Ensure appropriate working at heights risk controls are in place when working from a ladder or work platform.Wear appropriate footwear. |
| * Uneven, slippery or steep work surfaces?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Poor housekeeping, e.g. spillage in the vicinity?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Obstacles being placed in the vicinity of the plant?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Inappropriate or poorly maintained floor or walking surfaces (i.e. lack of a slip-resistant surface, unprotected holes, penetrations or gaps?)
 | Y [x]  N[ ]  | Major | Possible | High |
| If operating or maintaining plant at height can anyone slip, trip or fall due to: |  |  |  |  |
| * Use of work platforms, stairs or ladders?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Lack of guardrails or other suitable edge protection?
 | Y [ ]  N[x]  |  |  |  |
| * Other
 | Y [ ]  N[x]  |  |  |  |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **FIRE AND EXPLOSION**Can anyone be injured by fire? | Y [x]  N[ ]  | Major | Rare | Medium | The storage and handling of petrol (e.g. refuelling) may pose a risk of fire and explosion to the operator. | Ensure fuel is appropriately stored (e.g. away from ignition sources in a locked storage area).Ensure refuelling is conducted in a safe manner (e.g., equipment is switched off, away from ignition sources etc.). |
| * Can anyone be injured by explosion of gases, vapours, liquids, dusts, or other substances?
 | Y [x]  N[ ]  | Major | Rare | Medium |
| **TEMPERATURE/MOISTURE**Can anyone come into contact with objects athigh or low temperatures? | Y [ ]  N[x]  |  |  |  | The chainsaw chain and exhaust can get hot during continuous operation. | Ensure appropriate PPE is used (e.g. gloves and overalls).Ensure chain saw is not in continuous operation. (e.g., ensure appropriate rest breaks between sawing). |
| * Can anyone suffer ill health due to exposure to high or low temperatures?
 | Y [x]  N[ ]  | Minor | Possible | Medium |
| * Can anyone be injured or suffer ill health due to exposure to moisture?
 | Y [ ]  N[x]  |  |  |  |
| **OTHER**Can anyone be injured or suffer ill health from exposure to: |  |  |  |  | The chain saw produces exhaust fumes which can build up over time in an enclosed space.The operation of the chain saw may produce wood dust. | Ensure the chain saw is only operated where there is adequate ventilation.Refuel chainsaw in well-ventilated area. |
| * Chemicals?
 | Y [x]  N[ ]  | Moderate | Unlikely | Medium |
| * Toxic gases or vapours?
 | Y [x]  N[ ]  | Minor | Possible | Medium |
| * Fumes / Dusts?
 | Y [x]  N[ ]  | Minor | Possible | Medium |
| * Other? (please specify)
 | Y [ ]  N[x]  |  |  |  |
| **4. Risk Assessment Signoff** |
| Authorised By:       | Signature: | Date:       |

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| Consequence - Evaluate the consequences of a risk occurring according to the ratings in the top row

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| --- | --- | --- |
| Descriptor | Level | Definition |
| **Insignificant** | **1** | No injury |
| **Minor** | **2** | Injury/ ill health requiring first aid |
| **Moderate** | **3** | Injury/ill health requiring medical attention |
| **Major** | **4** | Injury/ill health requiring hospital admission |
| **Severe** | **5** | Fatality |

3. Risk level - Calculate the level of risk by finding the intersection between the likelihood and the consequences

|  |  |
| --- | --- |
| Likelihood | Consequence |
| **Insignificant** | **Minor** | **Moderate** | **Major** | **Severe** |
| **Almost Certain** | Medium | High | Extreme | Extreme | Extreme |
| **Likely** | Medium | Medium | High | Extreme | Extreme |
| **Possible** | Low | Medium | Medium | High | Extreme |
| **Unlikely** | Low | Low | Medium | Medium | High |
| **Rare** | Low | Low | Low | Medium | Medium |

  | Likelihood - Evaluate the likelihood of an incident occurring according to the ratings in the left hand column

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| --- | --- | --- |
| Descriptor | Level | Definition |
| **Rare** | **1** | May occur somewhere, sometime (“once in a life time / once in a hundred years”) |
| **Unlikely** | **2** | May occur somewhere within the Department over an extended period of time |
| **Possible** | **3** | May occur several times across the Department or a region over a period of time |
| **Likely** | **4** | May be anticipated multiple times over a period of timeMay occur once every few repetitions of the activity or event |
| **Almost Certain** | **5** | Prone to occur regularlyIt is anticipated for each repetition of the activity of event |

4. Risk Level/Rating and Actions

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| Descriptor | Definition |
| **Extreme:** | Notify **Workplace Manager and/or Management OHS Nominee** immediately. Corrective actions should be taken immediately. Cease associated activity. |
| **High:** | Notify **Workplace Manager and/or Management OHS Nominee** immediately. Corrective actions should be taken within 48 hours of notification. |
| **Medium:** | Notify **Nominated employee, HSR / OHS Committee**. Nominated employee, OHS Representative / OHS Committee is to follow up that corrective action is taken within 7 days. |
| **Low** | Notify **Nominated employee, HSR / OHS Committee**. Nominated employee, HSR / OHS Committee is to follow up that corrective action is taken within a reasonable time. |

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