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| 1. Hazard Management Details – General |
| **Plant/Equipment Item: LP Gas BBQ**  | **Make/Model No.:**  | **Serial No.:**  |
| **School / Work Location:**  | **Region:**  |
| **Name of Person(s) Conducting Activity:** | **Date Conducted:**       |
| LPG Gass BBQ  http://imgc.classistatic.com/cps/blnc/130129/225r1/0953i0b_20.jpeg | **Description of Use:** A domestic barbecue may fuelled by liquid petroleum gas (LP Gas) made up of butane and propane stored in an approved container. The gas is ignited using a knob on the BBQ which then heats a hotplate for the purposes of cooking food.  | **Summary of Key Risks:** **(refer to appropriate subsections)** * Impact and cutting
* Suffocation
* Slips/trips/falls
* Fire and explosion
* Temperature
 |

Plant and Equipment Risk Management Form

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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/NZS1596 Storage and handling of LP Gas AS1210 - Pressure vesselsAS2030 - The verification, filling, inspection, testing and maintenance of cylinders for storage and transport of compressed gases - Cylinders for compressed gases other than acetylene |
| **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 [ ]  N[x]  |  |  |  |  |  |

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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: |  |  |  |  | Connecting to the wrong LP Gas cylinder or use of a modified coupling part can create potential leakage of flammable liquid. | * Avoid using LP Gas cylinders that are damaged, corroded, have damaged fittings or a test date older than ten years
* Follow the connection instructions supplied with the LP Gas cylinder
* Use correct domestic LP Gas cylinder with unmodified connection device
* Only fill LP Gas cylinders at authorised filling stations by trained personnel
* Use a regulator between the LP Gas cylinder and the appliance unless the appliance is designed for high pressure gas
* Check that fittings are clean and tight -- use soapy water to check for leaks.
 |
| * Material falling off the plant?
 | Y [ ]  N[x]  |  |  |  |
| * Uncontrolled/unexpected movement of plant/load?
 | Y [ ]  N[x]  |  |  |  |
| * 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 [ ]  N[x]  |  |  |  |
| * Being thrown off or under the plant?
 | Y [ ]  N[x]  |  |  |  |
| * Contact with sharp or flying objects? (e.g. work pieces being ejected)
 | Y [ ]  N[x]  |  |  |  |
| * The mobility of the plant?
 | Y [ ]  N[x]  |  |  |  |
| * Inappropriate parts and accessories being used?
 | Y [x]  N[ ]  | Major | Unlikely | Medium |
| * 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 [x]  N[ ]  | Major | Rare | Medium | The LP Gas cylinder can rupture or the outlet control valve can fail potentially releasing high pressure gases.Common causes include rupture through high impact accidents, exposure to intense heat or failure due corroded or out of date LP Gas cylinders and fittings. | Transporting LP Gas Cylinders:* Total transport capacity of the cylinder must not exceed 9kg.
* Transport in an upright position, secured, preferably in the boot.
* Transport no more than two LP Gas cylinders.

LP Gas Cylinder Use:* Never use LP Gas cylinders indoors or in a confined space.
* Do not connect or disconnect LP Gas cylinders in the vicinity of a naked flame.
* Do not use undue force to open or close the main LP Gas cylinder valve. If in doubt, consult the supplier.

LP Gas Cylinder Storage:* LP Gas cylinders should be stored outside in a well-ventilated area.
* Ensure LP Gas valves are turned off firmly when not in use.

Pressure relief LP Gas valves should face away from dwellings and combustible materials where possible. |
| **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: |  |  |  |  | Spillage and burns risks from naked flame or bodily contact with the hotplate.* poor layout of BBQ implements, prepared and unprepared food and collision risks with other people
* poor lighting
* poor location of plant
 | BBQ siting:* Always sit a BBQ on a firm, level base sheltered from wind gusts and well away from anything flammable
* Ensure BBQ is located in a well-lit area Have a fire blanket or suitable fire extinguisher accessible.
* Follow the BBQ manufacturer's instructions. Ensure adequate space in the BBQ area is available for holding unprepared and prepared food.

BBQ Use:* Ensure that the lit BBQ is in the care of a responsible adult at all times.
* Never put any flammable liquid on a BBQ.
* Ensure BBQ implements are returned to an appropriate storage holder when not in use.
 |
| * Poorly designed workstation?
 | Y [x]  N[ ]  | Minor | Possible | Medium |
| * Repetitive body movement?
 | Y [ ]  N[x]  |  |  |  |
| * Constrained body posture or the need for excessive effort?
 | Y [ ]  N[x]  |  |  |  |
| * Design deficiency causing psychological stress?
 | Y [ ]  N[x]  |  |  |  |
| * Inadequate or poorly placed lighting?
 | Y [x]  N[ ]  | Moderate | Rare | Low |
| * Does the plant impact on the surrounding workplace and create potential hazards? (Consider potential impact on the design and layout of the workplace)
 | Y [ ]  N[x]  |  |  |  |
| * Is the location of the plant inappropriate? (Consider potential effects due to environmental conditions and terrain)
 | Y [x]  N[ ]  | Moderate | Rare | Low |
| * 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]  |  |  |  |  |  |
| **NOISE**Can anyone using the plant, or in the vicinity of the plant, suffer injury due to exposure to noise? | Y [ ]  N[x]  |  |  |  |  |  |
| **VIBRATION**Can anyone be injured or suffer ill-health from exposure to vibration? | Y [ ]  N[x]  |  |  |  |  |  |
| **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 [x]  N[ ]  | Major | Rare | Medium | Operating BBQ in poorly ventilated confined spaces can lead to oxygen depletion and carbon monoxide and other atmospheric contamination. | Operate BBQ in an external well-ventilated space. |
| **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 [x]  N[ ]  | Moderate | Unlikely | Medium |  |  |
| * Can anyone be injured as a result of the plant not serviced appropriately and/or maintained in line with manufacturer’s recommendations?
 | Y [x]  N[ ]  | Moderate | Unlikely | Medium |

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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: |  |  |  |  | Poor housekeeping by allowing the build-up of waste materials or failure to immediately clean up spills could result in a slip hazard.Inappropriate placement of objects (e.g. spare materials, bags) in the immediate vicinity of the BBQ may result in a trip hazard. | Always site a BBQ on a firm, level base sheltered from wind gusts and well away from anything flammable such as garden sheds, vegetation, and fences. Ensure appropriate cleaning and housekeeping standards are maintained at all times to minimise the risk of a slip, trip or fall. |
| * Uneven, slippery or steep work surfaces?
 | Y [x]  N[ ]  | Minor | Possible | Medium |
| * Poor housekeeping, e.g. spillage in the vicinity?
 | Y [x]  N[ ]  | Minor | Possible | Medium |
| * Obstacles being placed in the vicinity of the plant?
 | Y [x]  N[ ]  | Minor | Possible | Medium |
| * Inappropriate or poorly maintained floor or walking surfaces (i.e. lack of a slip-resistant surface, unprotected holes, penetrations or gaps?)
 | Y [x]  N[ ]  | Minor | Possible | Medium |
| If operating or maintaining plant at height can anyone slip, trip or fall due to: |  |  |  |  |
| * Use of work platforms, stairs or ladders?
 | Y [ ]  N[x]  |  |  |  |
| * 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[ ]  | Moderate | Possible | Medium | Exposed naked flame from BBQ burner, matches and firelighters are ignition sources.Oil and fat on hotplate or drip tray is a fuel source.Explosion risk if gas build up or leakage from LP Gas cylinder or fittings occurs (e.g. gas left on) | BBQ hotplates and drip trays should be cleaned after each use allowing ample time for them both to cool to air temperature.The BBQ, LP Gas cylinder and connections must be regularly inspected and maintained.If a gas leak does occur shut off the LP Gas cylinder immediately and allow any gas to dissipate.Ensure appropriate firefighting equipment/systems are in place. |
| * Can anyone be injured by explosion of gases, vapours, liquids, dusts, or other substances?
 | Y [x]  N[ ]  | Major | Unlikely | Medium |
| **TEMPERATURE/MOISTURE**Can anyone come into contact with objects athigh or low temperatures? | Y [x]  N[ ]  | Moderate | Likely | High | BBQ hot plate, drip tray and cooking oil are sources of heat while in operation. | Always use appropriate equipment to handle hot items (e.g. tongs, gloves).Ensure that the lit BBQ is in the care of a responsible adult at all times.Never put any flammable liquid on a BBQ.Ensure adequate space is available for holding unprepared and prepared food. Ensure BBQ implements are returned to an appropriate storage holder when not in use.Allow hot items to cool before storage and handling. |
| * Can anyone suffer ill-health due to exposure to high or low temperatures?
 | Y [ ]  N[x]  |  |  |  |
| * 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: |  |  |  |  |  |  |
| * Chemicals?
 | Y [ ]  N[x]  |  |  |  |
| * Toxic gases or vapours?
 | Y [ ]  N[x]  |  |  |  |
| * Fumes/Dusts?
 | Y [ ]  N[x]  |  |  |  |
| * 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

|  |  |  |
| --- | --- | --- |
| 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

|  |  |  |
| --- | --- | --- |
| 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

|  |  |
| --- | --- |
| 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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