| Science Lab Chemical Ha | ndling SAFE WORK METH | HOD STATEMENT (SWMS) | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------|------------------------------------|
| TASK OR | ACTIVITY: Science Lab Chemica | l Handling | |
| Business Name: | | ABN: | SWMS# |
| Business Address: | | | |
| Contact Person: | Phone: | E fil: | |
| THIS SAFE WORK METHOD | STATEMENT IS APPROVED BY | | |
| Under the Work Health and Safety Regulation (WHS Regulation), a person conduct the proposed work starts. | | required to en the that a safe work method s | tatement (SWMS) is prepared before |
| Full Name: | | | |
| Signature: | | Title: | Date: |
| Details of the person(s) responsible for ensuring implementation, monitoring a | poliance the VMS a well as review | s and modifications of the SWMS. | |
| Full Name: | | Title: | Phone: |
| ALL PERSONNEL PARTICIPATING IN ANY ACTIVITY ON THIS MAN HAVE THE FOLLOWING COMMUNICATED | NALE OF ALL RELEVANT PERSONNE EVELOPMENT AND APPROVAL OF | EL WHO HAVE BEEN CONSULTED AND CO THIS SWMS | DMMUNICATED TO IN THE |
| Safety meetings or toolbox talks will be sched ed in account with gislative requirements to first identify any site hazards, such a companie those hazards and then to further take steps to either eliminate or contineach hazard. | | | |
| If an incident or a near miss occurs, all work must stop an alately. Depending on the severity of the incident, a meeting will be called with all workers to amend the SWMS if required. The meeting may also be an educational opportunity. | | | |
| Any changes made to the SWMS after an incident or a near miss must be approved by the Person Conducting Business or Undertaking and communicated to all relevant personnel. | | | |
| The SWMS must be kept and be available for inspection at least until the work is completed. Where a SWMS is revised, all versions should be kept. If a notifiable incident occurs in relation to which the SWMS relates, then the SWMS must be kept for at least two years from the occurrence of the notifiable incident. | | | |



| CLIENT OR PRINCIPAL | CONTRACTOR DETAILS |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Client: | SCOPE OF WORKS |
| Project Name: | |
| Project Address: | |
| Project Manager: | |
| Contact Phone: | |
| Date SWMS supplied to Project Manager: | |
| ANY HIGH-RISK CONSTRUC | |
| ☐ involves a risk of a person falling more than 2 meters | I is carried out on or near pressurised gas mains or piping |
| □ is carried out on a telecommunication tower | carried out on or near chemical, fuel or refrigerant lines |
| ☐ involves demolition of an element of a structure that is load-bearing | □ is carried out on or near energised electrical installations or services |
| □ involves demolition of an element related to the physical integ. Y of a sucture | \square is carried out in an area that may have a contaminated or flammable atmosphere |
| □ involves, or is likely to involve, disturbing asb | ☐ involves tilt-up or precast concrete |
| involves structural alteration or repair that quires terminary supart to prevent collapse | ☐ is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor |
| □ is carried out in or near a confined space | \Box is carried out in an area of a workplace where there is any movement of powered mobile plant |
| is carried out in/near a shaft or trench deeper that tunnel involving use of explosives | ☐ is carried out in areas with artificial extremes of temperature. |
| ☐ is carried out in or near water or other liquid that involves a risk of drowning. | ☐ involves diving work. |
| ANY HIGH-RISK MACHINER | RY OR EQUIPMENT NEARBY |
| | |
| | |
| | |



| RISK MATRIX | | | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|------------|--------------|----------------|-----------------------------------------|--|------------------------------------|--|
| LIKELIHOOD | INSIGNIFICANT | MINOR | MODERATE | MAJOR | CATASTROPHIC | SCORE | | | HEIRARCHY OF CONTROLS | |
| ALMOST CERTAIN | 3 HIGH | 3 HIGH | 4 ACUTE | 4 ACUTE | 4 ACUTE | SCORE | ACTION | | Elimination Remove the hazard. | |
| LIKELY | 2 MODERATE | 3 HIGH | 3 HIGH | 4 ACUTE | 4 ACUTE | 4A ACUTE | DO NOT PROCE | | Substitution | |
| POSSIBLE | 1 LOW | 2 MODERATE | 3 HIGH | 4 ACUTE | 4 ACUTE | 3H HIGH | Review befor work starts. | | Replace the hazard. | |
| UNLIKELY | 1 LOW | 1 LOW | 2 MODERATE | 3 HIGH | 4 ACUTE | 2M MODERATE | Ensure control measures in place. | | Isolate People from the hazard | |
| RARE | 1 LOW | 1 LOW | 2 MODERATE | 3 HIGH | 3 HIGH | 1L LOW | nitor and k⊾ records | | Engineering Isolate the hazard. | |
| HIGH HIGH HIGH LOW Research Isolate the flazald. Notes on Hierarchy of Controls: Elimination methods are the most effective and preferre usen con minute a hazard. Substitution is the second most effective method of controlling a hazard. Engineering by isolation is the increase the flow, while Administrative Controls by changing the work is the fourth most effective method. PPE (Personal Protective Equipment), the least effective Substitution PPE PPE PPE PPE PPE PPE PPE | | | | | | | | | | |

| | | | | | | TIVE EQUIPM | | | | | |
|---------------------|---------------------------------|--------------------|---------------|-------------|----------------------------|--------------------|----------------------|------------------------|--------------------|-------------------|---------------------------|
| | | Select the ap | propriate PPL | abo, ruitab | i or the equi | oment used or | the job task | being perform | ned (if applica | able). | |
| FOOT PROTECTION | HAND PROTECTION | HEAD PROTECTION | | P ECTION | R⊾ ⇒PIRATORY PROTECTION | FACE PROTECTION | HIGH-VIS CLOTHING | PROTECTIVE CLOTHING | FALL PROTECTION | SUN PROTECTION | HAIR/JEWELLERY SECURED |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Other PPE Required: | | | | | | | | | | | |
| | Permit or Licenses Requirements | | | | | | Ма | andatory Qual | ifications and | Training | |
| | | | | | | | | | | | |



| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|-------------------------------|-----------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| 1. Preparation | Chemical spill, Incorrect handling of chemicals | 3Н | Conduct thorough chemical risk assessment before any handling begins to identify potential hazards and appropriate control measures. Ensure all personnel involved in chemical has in our properly trained on safe practices, including the use of personal protective equipment (PPE). Implement standard operating procedures (SOPs) or the ourect handling, storage, and disposal of chemicals. Provide appropriate PPE proch as loves, goorne, and lab coats, and ensure they are worn at all times when handline chemicals. Instead managing and y showers an exyewash stations within easy reach of areas where chemicals are handl. Ensure the safety sta sheets (SDSs) for all chemicals are readily available and understood by all personnal that ling the substances. Use specontagement kits specifically designed for the types of chemicals being handled, and ensure state are inited in oneir use. Laber to emical containers clearly with correct identification, hazard symbols, and information about adding precautions. Use the mount of chemicals stored and used within workspaces to minimise the risk of spillage or accidents. Maintain good housekeeping practices, ensuring work surfaces are clear of unnecessary items and regularly cleaned to prevent contamination. Establish an emergency response plan tailored to chemical spills and exposure incidents, and conduct regular drills to ensure preparedness. | 2М |
| 2. Chemical Identification | Incorrect labelling, Misidentification of chemicals | ЗH | Conduct regular training sessions for all staff on proper labelling standards and chemical identification procedures. Implement a clear, standardised labelling system that includes chemical name, concentration, and hazard symbols. Display Material Safety Data Sheets (MSDS) prominently for easy access to information about chemicals. Carry out routine audits of chemical labels and storage areas to ensure up-to-date and correct labelling. Use barcode or QR code systems linked to a digital database for accurate chemical tracking and identification. Colour-code chemical containers according to hazard classifications to assist in quick visual identification. | 2М |



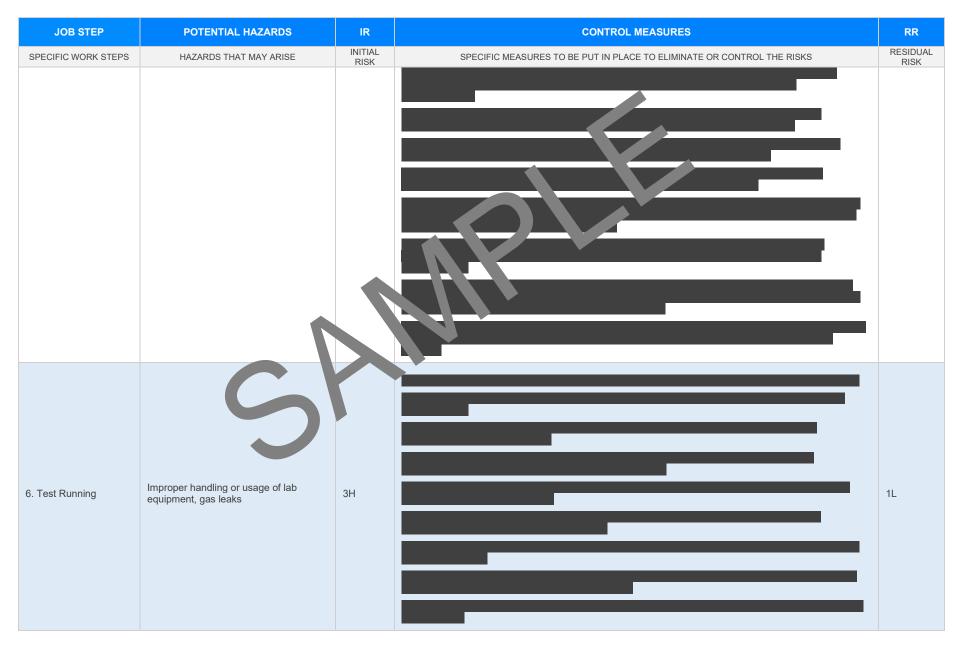
| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---------------------|--------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | - Ensure all temporary containers are labelled immediately with the contents and potential hazards before use. | |
| | | | - Assign a designated person responsible for overruing chemical inventory and proper labelling compliance. | |
| | | | - Develop a detailed chemical handling proceed documer that all laboratory personnel must review and understand. | |
| | | | - Implement a double-check system for labelling there at least two qualified staff members verify chemical identification before his shelved. | |
| | | | - Provide clearly visible lamina. Dosters throughou have detailing common chemical hazard signs and their meaning | |
| | | | - Regularly relate and many ain an extronic centory list that correlates with physical labels to prevent data discrepances. | |
| | | | - Encreme operation and immediate reporting of any labelling issues or chemical miside the stions of revent incidents. | |
| | Miscalibration of equations and proposition of equations accidents | сH | - Conduction of tracing for staff on the correct calibration procedures and potential risks associated the handing equipment. | |
| | | | - Impute that a checklist system to verify that equipment calibration is completed according to hanufacture respecifications before use. | |
| | | | - arly label all equipment with their last calibration date and the due date for the next calibration. | |
| | | | Use only certified and regularly maintained calibration tools to ensure accuracy. | |
| | | | - Set up workstations with adequate space, ensuring there are no tripping hazards or clutter that could interfere with equipment operation. | |
| 3. Lab Setup | | | - Establish a double-check system where another trained staff member verifies the setup before any experiments commence. | 1L |
| | | | - Ensure proper ergonomic arrangements to prevent strain injuries when interacting with equipment during setup. | |
| | | | - Maintain a well-ventilated environment to minimise exposure to chemical fumes that may affect the calibration process's accuracy and individuals' health. | |
| | | | - Display clear and visible emergency protocols in case of equipment failure or accidents, including shutdown procedures and contact information for safety officers. | |
| | | | - Regularly review and update lab setup protocols based on new research findings or after incidents, to continually improve safety and efficiency. | |
| 4. Handling of | Skin or eye exposure, Inhalation of | | | |
| Chemicals | vapours | 4A | | 2M |
| | | | | |



| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---------------------|---------------------------------------------------------------|-----------------|------------------------------------------------------------------------|------------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | | |
| 5. Mixing Chemicals | Unplanned reactions, high temperature and pressure conditions | 4A | | ЗН |

Date of Issue:





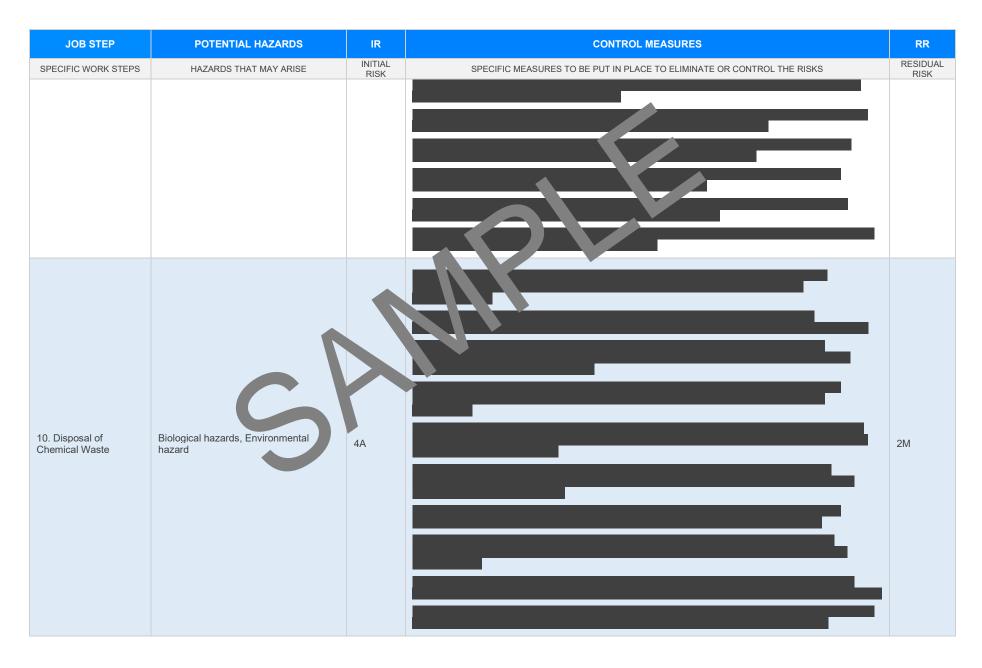


| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|-----------------------|----------------------------------------------------------------------|-----------------|------------------------------------------------------------------------|------------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
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| . Observing Reactions | Exposure to dange us fumes, Unexpected chemical reactions | зн | | 2M |
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| 3. Data Collection | Incorrect data recording, Missing crucial changes in the reaction | 2M | | 1L |



| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---------------------|-----------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------|------------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | | |
| 9. Cleanup Process | Chemical spills, Incomplete removal of hazardous materials, lingering fumes | ЗН | | 2M |







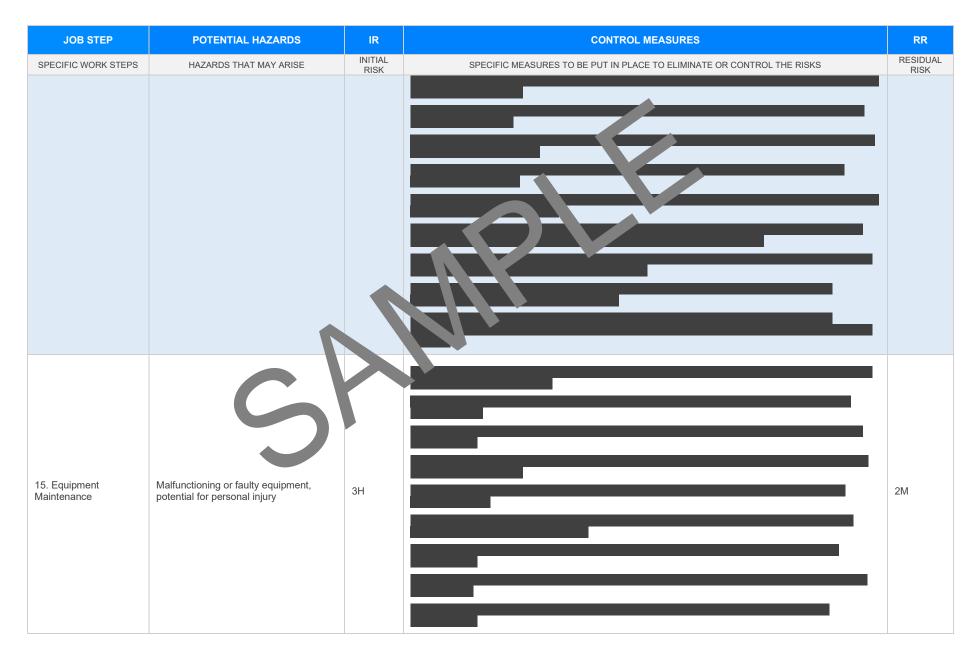


Version 2.5

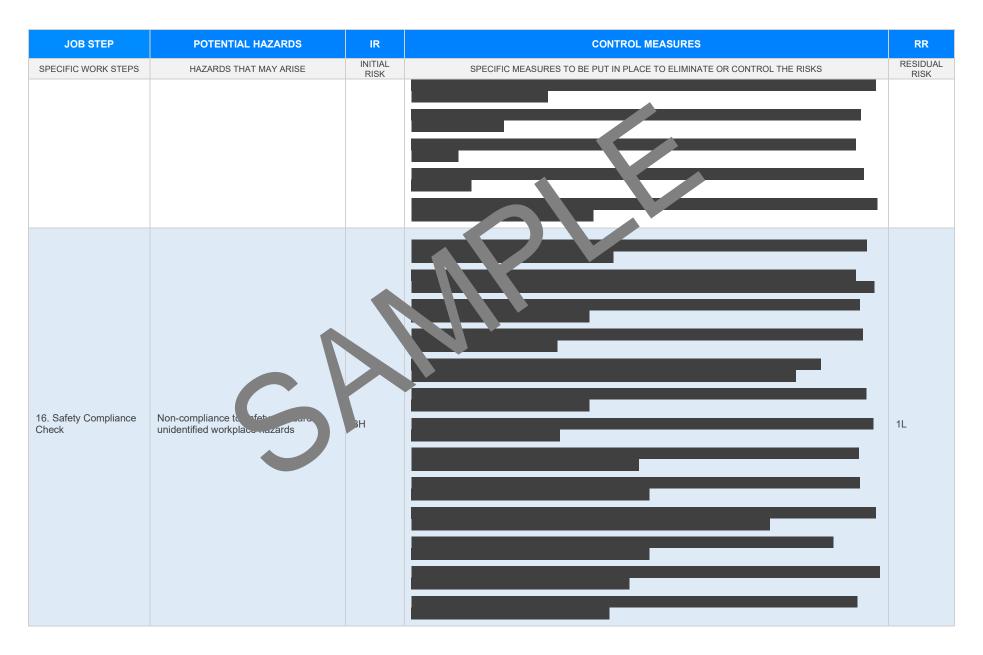


| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---------------------|-----------------------------------------------------------------|-----------------|------------------------------------------------------------------------|------------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | | |
| 13. Documentation | Miscommunication or misunderstanding of recorded information | | | 1L |
| 14. Inventory Check | Inaccurate stock tracking, mishandling of chemicals | 2M | | 1L |





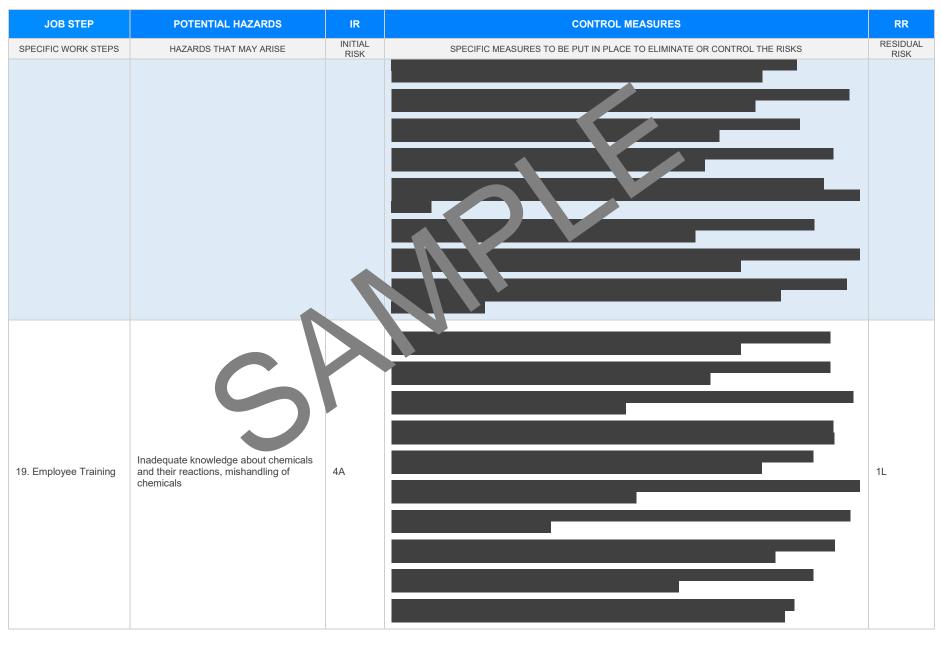




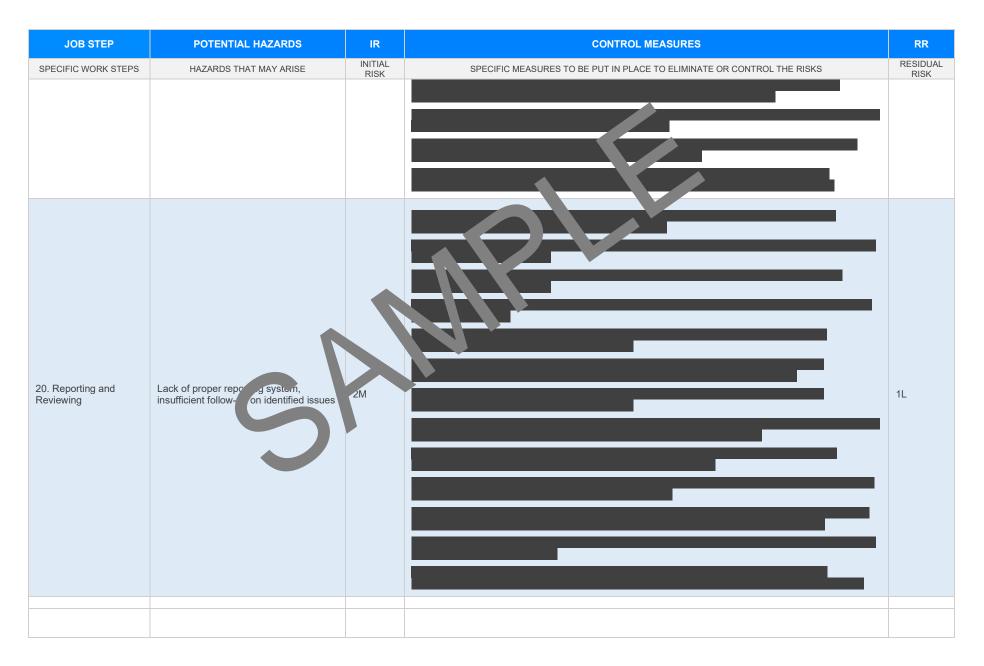


| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|-------------------------------|----------------------------------------------------------------------|-----------------|------------------------------------------------------------------------|------------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | | |
| 17. Emergency Preparedness | Poor understanding of emergency procedures, delayed response time | ЗН | | 2M |
| 18. Regular Lab Inspection | Unchecked dangerous conditions, inadequate safety measures | ЗН | | 2M |

















EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

| LEGISLATIVE REF | ERENCES |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISL | ATIVE REFERENCES DANY STATE DAT ARE NOT APPLICABLE |
| Queensland & Australian Capital Territory Work Health and Safety Act 2011 Work Health and Safety Regulations 2011 Legislation QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws Codes of Practice QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice Legislation ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice Codes of Practice ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice | Victoria Occupational Health au Safety Act 204 Occupational Health and pafety or gulations 2017 Legis non VIC: <u>https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and- rulat</u> is unles of mactice VIC <u>autps://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice</u> |
| New South Wales Work Health and Safety Act 2011 Work Health and Safety Regulations 2017 Legislation NSW: https://www.safework.nsw.gov.au/legal-obligations/legislatic Codes of Practice NSW: https://www.safework.nsw.gov.au/legal-obligations/legislatic | Western Australia Work Health and Safety Act 2020 Work Health and Safety Regulations 2022 Legislation Western Australia: <u>https://www.commerce.wa.gov.au/worksafe/legislation</u> Codes of Practice WA: <u>https://www.commerce.wa.gov.au/worksafe/codes-practice</u> |
| Northern Territory Work Health and Safety (National Uniform Legislation) Act 2011 Work Health and Safety (National Uniform Legislation) Regulation 2011 Legislation NT: <u>https://worksafe.nt.gov.au/laws-and-compliance/weiplace-secure-laws</u> Codes of Practice NT: <u>https://worksafe.nt.gov.au/laws-and-compliance/weiplace-secure-laws</u> | Safe Work Australia Links Law and Regulation (All States): <u>https://www.safeworkaustralia.gov.au/law-and-regulation</u> Model Codes of Practice: <u>https://www.safeworkaustralia.gov.au/resources-publications/model-</u> <u>codes-of-practice</u> Model Codes of Practice |
| South Australia Work Health and Safety Act 2012 (SA) Work Health and Safety Regulations 2012 (SA) Legislation for SA: <u>https://www.safework.sa.gov.au/resources/legislation</u> Codes of Practice for SA: <u>https://www.safework.sa.gov.au/work_dces/codes-of-practice#COPs</u> | Managing noise and preventing hearing loss at work Confined spaces Labelling of workplace hazardous chemicals Managing risks of hazardous chemicals in the workplace Welding processes |
| Tasmania Work Health and Safety Act 2012 Work Health and Safety (Transitional and Consequential Provisions) Act 2012 Work Health and Safety Regulations 2012 Work Health and Safety (Transitional) Regulations 2012 Legislation for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations Codes of Practice for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice | First aid in the workplace Managing the risk of falls at workplaces Hazardous manual tasks Managing the risk of falls in housing construction Managing electrical risks in the workplace Demolition work Excavation work Work health and safety consultation, cooperation and coordination |
| Details of permits, licenses or access required by regulatory bodies (add or delete as required): - Permits from local council - Authorisation to commence work - Any required documents. | Managing the work environment and facilities How to manage work health and safety risks Managing risks of plant in the workplace Construction work |



SIGNATORIES OF THE SAFE WORK METHOD STATEMENT

The signed and dated personnel listed below have cooperated in the consultation and development of this Safe Work Method Statement which has been approved by the Person/s Conducting a Business or Undertaking (PCBU). In signing this Safe Work Method Statement each individual acknowledges and confirms that they have read this SWMS in full, having raised any questions for items on this Safe Work Method Statement that require clarification, and confirms that they are competent, skilled and knowledgeable for the task assigned to them. Every person acknowledges that they have received the relevant training and gualifications where required, before carrying out any work contained in this Safe Work Method Statement. By signing this Safe Work Method Statement each individual agrees to work safely, to follow any safe work instructions which are provided, and agrees to use all Personal Protective Equipment where appropriate.

| Worker Name | Signature | Date |
|-------------|-----------|------|
| | | |
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SAFE WORK N THE ST ATEM ANT MONITORING AND REVIEW

d must reviewed (and

hav be sted by the operation

should be carried out in

The SWMS must be reviewed regularly to make sure it remains fective revised if necessary) if relevant control measures are revised. The viewn consultation with workers (including contractors htractors of the SWMS and their health and safety representatives who represented that work group at the workplace.

When the SWMS has been revised the PCBU must ensure that persons involved with the work are advised that a revision has been made and how they can acces he revised SWMS, including all persons who will need to change a work procedure or system as a region of the review are advised of the changes in a way that will enable them to implement their duties antly with the revised SWMS. All workers that will be involved in the work must be provided with the relevant information and instruction that will assist them to understand and implement the revised SWMS.

The SWMS must be monitored regularly for the effectiveness of ensuring hazard controls are effective in reducing the risk of incidents, keeping the workplace safe for all personnel. The person responsible for monitoring the effectiveness of the Safe Work Method Statement should employ a multi-faceted approach which includes but is not limited to:

- 1. Spot Checks.
- 2. Consultation with workers, contractors and sub-contractors.
- 3. Internal audits on a continual basis.

An approach of continuous improvement, promptly recording inconsistencies or deficiencies. followed up by immediate corrective action and consultation with all relevant personnel ensures that the PCBU is consistently developing ever-improving systems of safe work principles.

| REVIEW NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------|---|---|---|---|---|---|---|
| NAME | | | | | | | |
| INITIALS | | | | | | | |
| DATE | | | | | | | |



SAFE WORK METHOD STATEMENT REVIEW CHECKLIST

This Safe Work Method Statement Review Checklist is to be followed and used upon initial development of the SWMS to help ensure that all steps have been adequately taken before work commences. Think of this document as an internal audit review checklist before commencing work, and may form part of a Toolbox Talk (safety meeting) and may be used as an opportunity for education and training.

| ITEMS WHICH MUST BE INCLUDED IN THE SWMS | COMPLETED | COMMENTS |
|---------------------------------------------------------------------------------------------------|----------------|----------|
| | | |
| The company details have been entered, including the project name and address. | | |
| All relevant personnel consulted during the development of the SWMS. | | |
| Name, signature, position and date signed of the person approving the SWMS. | | |
| Specific personnel and qualifications, experience is noted in the SWMS. | | |
| Provides a step-by-step process of tasks required to carry out the activity or task. | | |
| Adequate risk assessment of any identified hazards has been completed. | \boxtimes | |
| Foreseeable hazards are identified and documented for each step. | \boxtimes | |
| Any hazards listed in any site risk assessments have been added to the SWMs | \boxtimes | |
| SWMS initial risk (IR) column as well as residual risk (RR) column mpleted. | \boxtimes | |
| Check control measures added to the SWMS are the most effective selection | \boxtimes | |
| Responsible person is assigned and listed on the property of the importation control measures. | \boxtimes | |
| Permit or licenses requirements specified, su as Hot Work, Electric Work, Work at Heights etc. | \boxtimes | |
| SWMS identifies plant and equipment to be use | \boxtimes | |
| Details of inspection checks required for any equipment listed protection on the SWMS. | \boxtimes | |
| Describes any mandatory qualifications, experience, and g or skills required to perform the work. | \boxtimes | |
| Applicable personal protective equipment is selected on the SWMS. | \boxtimes | |
| Reflects and documents any legislative references and/or Australian Standards. | \boxtimes | |
| Identifies any hazardous substances used with specific control measures in line with any SDS. | \boxtimes | |
| | | |
| REVIEWED BY | DATE REVIEWED | |
| SIGNATURE | DATE COMPLETED | |