



**Asbestos**

|  |                            |                        |
|--|----------------------------|------------------------|
| ID 8379  | Alert Number CRITICAL RISK | Next Review 31/01/2024 |
| GPS Longitude  | GPS Latitude               | Location               |
| Category Construction  | Reported By Karen Bonney   | Significant Risks Yes  |
| Site Asbestos (Critical Risk)  | Date 10/06/2021            | Status Underway        |
| Description Risk of illness due to exposure to asbestos in buildings.<br>Pleural plaques, asbestosis and mesothelioma.<br>Old buildings with a high likelihood of containing asbestos - demolition or routine maintenance may expose staff to asbestos fibres. |                            |                        |

**Hazard Identified**

| Hazard Classifications | Hazard Category     | Hazard                            | Risk                  |
|------------------------|---------------------|-----------------------------------|-----------------------|
| Physical               | Work processes      | Operating procedures not followed | Potential for illness |
| Chemical               | Hazardous Chemicals | Body contact/exposure             | Potential illness     |

**Risks Identified**

| Risk | Risk/Score |
|------|------------|
|      | - High     |

**Residual Risk Rating 5.00**

| Type     | Control                       | Control Name   | Status    | Description  |
|----------|-------------------------------|--|-----------|--|
| Modified | Administrative Controls       | Education  | Completed | Training includes awareness of asbestos and processes to follow. Education sessions for building occupiers where asbestos is identified.   |
| Modified | Administrative Controls       | Internal Policy and/or Guidelines                    | Completed | Asbestos information and awareness of building ages and likelihood of asbestos in buildings. Guidelines on what to do if you suspect asbestos content in building.<br>Asbestos removal programme to eliminate asbestos from buildings. |
| Modified | Administrative Controls       | Personal or environmental monitoring                 | Completed | Personal or environmental monitoring is available when asbestos is suspected or during clean up and removal. Contact Property Services.  |
| Modified | Administrative Controls       | Removal of asbestos by approved external contractors | Completed | Only certified asbestos removers can remove asbestos.  |
| Modified | Personal Protective Equipment | Building surveys to identify asbestos                | Completed | Send sample for testing to verify if asbestos and what type. Area must be sealed off until testing completed, if removal required must be completed by external certified contractor.  |
| Modified | Administrative Controls       | Management   | Completed | Contact Property Services with any concerns regarding asbestos in buildings. Staff notified of potential or actual Asbestos before work commencing. Register of known asbestos locations available to all PS staff.                    |
| New      | Administrative Controls       | Signage  | Completed | Signage and labelling of asbestos containing materials.  |
| Modified | Administrative Controls       | Asbestos discovery flow chart                        | Completed | notification process in place for staff (trade services and contractors) working with asbestos   |

**Reviews**

| Date       | Person       | Findings                  | Actions | Status    |
|------------|--------------|---------------------------|---------|-----------|
| 11/06/2021 | Karen Bonney | Updated controls          |         | Completed |
| 31/01/2023 | Karen Bonney | Added flow chart in files |         | Completed |

## Height Work

|  |                            |                        |
|--|----------------------------|------------------------|
| ID 8380  | Alert Number CRITICAL RISK | Next Review 31/01/2024 |
| GPS Longitude  | GPS Latitude               | Location               |
| Category Construction                                    | Reported By Karen Bonney   | Significant Risks Yes  |
| Site Height Work (Critical Risk)                         | Date 11/06/2021            | Status Completed       |
| Description Fall from height resulting in injury         |                            |                        |
| Items falling from height.                               |                            |                        |
| Unprotected edges  |                            |                        |
| Unsuitable working environment                           |                            |                        |
| - slippery roof  |                            |                        |
| - brittle roof   |                            |                        |
| - adverse weather conditions (wind and rain)             |                            |                        |
| Unsecured equipment                                      |                            |                        |
| Inappropriate use of access and or fall arrest equipment |                            |                        |
| - ladders  |                            |                        |
| - scaffold   |                            |                        |
| - elevated work platform                                 |                            |                        |
| - harness and lanyards                                   |                            |                        |
| - anchor points  |                            |                        |
| - sky lights   |                            |                        |
| - steep areas  |                            |                        |



Scafftag or aculog.

Collapsed scaffold with inadequate outrigger props, on soft ground, in the wind.



## Hazard Identified

| Hazard Classifications | Hazard Category              | Hazard                | Risk                     |
|------------------------|------------------------------|-----------------------|--------------------------|
| Physical               | Working at height/ladder use | Risk of trip          | Personal Injury/fatality |
| Physical               | Working at height/ladder use | Risk of items falling | injury to others         |
| Physical               | Working at height/ladder use | Risk of fall          | Personal Injury/fatality |

## Risks Identified

| Risk | Risk/Score  |
|------|-------------|
|      | - Very High |

## Residual Risk Rating 6.00

| Type     | Control                 | Control Name   | Status    | Description  |
|----------|-------------------------|--|-----------|--|
| Modified | Engineering Controls    | Security   | Completed | Where height working is required, ensure secure so that unauthorised access prevented. Always check height equipment prior to starting your days work.   |
| Modified | Administrative Controls | Height Safety and Fall arrest training                               | Completed | All staff required to work at heights to be trained in safe methods of height working and specifics on the methods in use. Staff trained in the permit to work system. NZQA17600   |
| Modified | Administrative Controls | Internal Policy and/or Guidelines including Permit to Work at Height | Completed | Permit to work system for height work over 3 metres. Contractor management policy and process.   |
| Modified | Administrative Controls | Planned maintenance/checks for height equipment                      | Completed | Plans for regular maintenance or checks are in place for height equipment.<br>Worksite audits to ensure compliance with working at heights.<br><br>Repairs are carried out by manufacturers of height equipment to NZ standards. |
| New      | Engineering Controls    | Risk Assessment  | Completed | Ensure a risk assessment has been completed before work commences  |
| New      | Engineering Controls    | Fall Protection  | Completed | - handrails and barriers<br>- elevated work platforms<br>- scaffolding<br>- fall arrest and anchor point systems   |
| New      | Engineering Controls    | Restricted access and entry points                                   | Completed | Barricading and barriers, restricted access where there is a risk of fall from height.   |
| New      | Administrative Controls | Safety in design   | Completed | Safety in design process for new and refurbishment of buildings to eliminate height risks where possible, minimise where elimination is not possible   |
| New      | Administrative Controls | Contractor management  | Completed | All contractors working at height must have a Permit to Work and height training   |

### Reviews

| Date       | Person                 | Findings                                | Actions | Status    |
|------------|------------------------|---|---------|-----------|
| 23/08/2016 |                        | Belinda Glass edited.                   |         | Completed |
| 19/12/2017 |                        | Reviewed by P Benjamin                  |         | Completed |
| 27/11/2018 | Benjamin, Paul William | Reviewed                                |         | Completed |
| 19/12/2019 | Benjamin, Paul William | Reviewed                                |         | Completed |
| 11/06/2021 | Karen Bonney           | Updated description, files and controls |         | Completed |
| 31/01/2023 | Andrea McMillan        | NFA                                     |         | Completed |

### Confined Space

|               |  |              |               |                   |            |
|---------------|--|--------------|---------------|-------------------|------------|
| ID            | 8382   | Alert Number | CRITICAL RISK | Next Review       | 31/01/2024 |
| GPS Longitude |  | GPS Latitude |               | Location          |            |
| Category      | Construction   | Reported By  | Karen Bonney  | Significant Risks | Yes        |
| Site          |  | Date         | 11/06/2021    | Status            | Completed  |
| Description   | Suffocation, asphyxiation, crushing- from collapsing walls (trenches)- slips and trips (exacerbated by limited workspace).<br>Unrestricted access to confined spaces.<br>Inadequate risk assessment of confined space.<br>Poorly ventilated workspace. |              |               |                   |            |

### Risks Identified

| Risk            | Risk/Score  |
|-----------------|-------------|
| Financial       | - Very High |
| Personal Injury | - High      |

## Residual Risk Rating 6.00

| Type     | Control                 | Control Name                                   | Status    | Description  |
|----------|-------------------------|--|-----------|--|
| Modified | Administrative Controls | Confined space entry permit system             | Completed | Confined space risk assessments and safe work method statements for every confined space entry. Gas monitoring and retrieval systems |
| Modified | Administrative Controls | Training                                       | Completed | Confined space entry training. Training for permit issuers/receivers.  |
| New      | Administrative Controls | Confined spaces register                       | Completed | A register of all confined spaces on campus.   |
| New      | Administrative Controls | Signage  | Completed | Confined spaces have safety signage including restricted access  |
| New      | Engineering Controls    | Confined Spaces are locked (controlled access) | Completed | All registered confined spaces are locked to control access  |

### Reviews

| Date       | Person          | Findings                   | Actions | Status    |
|------------|-----------------|----------------------------|---------|-----------|
| 11/06/2021 | Karen Bonney    | Updated files and controls |         | Completed |
| 31/01/2023 | Andrea McMillan | Updated raw risk           |         | Completed |

### Hot Work

|   |                            |                        |
|---|----------------------------|------------------------|
| ID 8387   | Alert Number CRITICAL RISK | Next Review 31/01/2024 |
| GPS Longitude   | GPS Latitude               | Location               |
| Category Construction   | Reported By Karen Bonney   | Significant Risks Yes  |
| Site Hot Work (Critical Risk)   | Date 11/06/2021            | Status Completed       |
| Description Risk of fire/damage to property<br>Injury/burns from hot work |                            |                        |

### Risks Identified

| Risk            | Risk/Score  |
|-----------------|-------------|
| Financial       | - Very High |
| Personal Injury | - Very High |

## Residual Risk Rating 8.00

| Type     | Control                 | Control Name          | Status    | Description   |
|----------|-------------------------|-----------------------|-----------|---|
| Modified | Administrative Controls | Permit to work policy | Completed | Permit to work is issued for all hot work as defined by the policy and manual                             |
| Modified | Engineering Controls    | Fire Watch            | Completed | Fire watch and monitoring post work completion - permit to be adjusted to record completion of fire watch |
| New      | Administrative Controls | Contractor Management | Completed | Management of contractors and review of their permit systems  |
| New      | Administrative Controls | Training              | Completed | Permit issuer/receiver training   |

### Reviews

| Date | Person | Findings | Actions | Status |
|------|--------|----------|---------|--------|
|------|--------|----------|---------|--------|

|            |                 |   |  |           |
|------------|-----------------|---|--|-----------|
| 31/01/2023 | Andrea McMillan | Alterations to permit following COE incident and insurance review |  | Completed |
|------------|-----------------|---|--|-----------|

### Isolation of services

|               |  |              |               |                   |            |
|---------------|--|--------------|---------------|-------------------|------------|
| ID            | 8388   | Alert Number | CRITICAL RISK | Next Review       | 31/01/2024 |
| GPS Longitude |  | GPS Latitude |               | Location          |            |
| Category      | Construction   | Reported By  | Karen Bonney  | Significant Risks | Yes        |
| Site          | Isolation of Services (Critical Risk)  | Date         | 11/06/2021    | Status            | Completed  |
| Description   | Work disruptions due to building services being interrupted<br>- loss of research work<br>- animal environment affected<br>- fume hoods not working<br>- emergency showers not working |              |               |                   |            |

### Risks Identified

| Risk            | Risk/Score  |
|-----------------|-------------|
| Financial       | - Very High |
| Personal Injury | - High      |

### Residual Risk Rating 6.00

| Type | Control                 | Control Name          | Status    | Description  |
|------|-------------------------|-----------------------|-----------|--|
| New  | Administrative Controls | Permit to work policy | Completed | Permit to work issued for all building service isolation as per policy and manual.                                     |
| New  | Administrative Controls | Training              | Completed | Permit issuer/receiver training  |
| New  | Administrative Controls | Contractor management | Completed | Contractor management and review of of permit systems  |
| New  | Administrative Controls | Consultation          | Completed | Consultation with building occupiers to accommodate services interruptions and notification to all building occupiers. |

### Reviews

| Date       | Person          | Findings          | Actions | Status    |
|------------|-----------------|-------------------|---------|-----------|
| 31/01/2023 | Andrea McMillan | Added risk factor |         | Completed |

### Electrical /high voltage power

|               |  |              |               |                   |            |
|---------------|--|--------------|---------------|-------------------|------------|
| ID            | 8389   | Alert Number | CRITICAL RISK | Next Review       | 31/01/2024 |
| GPS Longitude |  | GPS Latitude |               | Location          |            |
| Category      | Construction   | Reported By  | Karen Bonney  | Significant Risks | Yes        |
| Site          | Electrical/High Voltage Power (Critical Risk)                                      | Date         | 11/06/2021    | Status            | Completed  |
| Description   | - Electrocution, burns, fatality.<br>- Explosion fire<br>- Equipment/ Plant damage |              |               |                   |            |

### Risks Identified

|           |             |
|-----------|-------------|
| Risk      | Risk/Score  |
| Financial | - Very High |

## Residual Risk Rating 6.00

| Type     | Control                 | Control Name       | Status    | Description   |
|----------|-------------------------|--------------------|-----------|---|
| New      | Administrative Controls | Training           | Completed | Trained electricians only to conduct electrical work  |
| Modified | Elimination             | lock out/tag out   | Completed | Lock out/Tag out and/or isolation of equipment for electrical repairs. University procedures to be adhered to |
| Modified | Administrative Controls | Qualifications     | Completed | High voltage installations by external experts with certification and auditing as defined by the installation |
| New      | Engineering Controls    | Electrical Testing | Completed | Compliance with AS/NZ Standards regarding electrical testing  |

## Reviews

| Date       | Person          | Findings  | Actions | Status    |
|------------|-----------------|---|---------|-----------|
| 31/01/2023 | Andrea McMillan | Added URLs to regulations and control measures regarding Electrical standards |         | Completed |

## Contractor Management

|   |                            |                        |
|---|----------------------------|------------------------|
| ID 8391   | Alert Number CRITICAL RISK | Next Review 31/01/2024 |
| GPS Longitude   | GPS Latitude               | Location               |
| Category Construction   | Reported By Karen Bonney   | Significant Risks Yes  |
| Site Contractor Management (Critical Risk)  | Date 11/06/2021            | Status Completed       |
| Description Multiple workers on site generating risk of injury incidents<br>Risks/Hazards generated by contractor work may harm others in vicinity of work. |                            |                        |

## Hazard Identified

| Hazard Classifications | Hazard Category | Hazard                 | Risk                             |
|------------------------|-----------------|------------------------|----------------------------------|
| Physical               | Electrical      | Use in wet environment | Electrocution                    |
| Physical               | Equipment       | Moving parts           | Risk of Injury                   |
| Physical               | Manual handling | Awkward loads          | Potential for injuries           |
| Physical               | Transport       | Moving vehicles        | Potential for injury or fatality |
| Physical               | Work practices  | Inexperienced workers  | Potential for injury             |
| Physical               | Housekeeping    | Poor housekeeping      | Potential for illness/injury     |
| Psychosocial           | Work load       | Too much work          | potential for illness            |
| Physical               | Electrical      | Faulty equipment       | Electrocution                    |

## Risks Identified

|                 |             |
|-----------------|-------------|
| Risk            | Risk/Score  |
| Property Damage | - Very High |

## Residual Risk Rating 6.00

| Type     | Control                 | Control Name  | Status    | Description   |
|----------|-------------------------|---|-----------|---|
| Modified | Administrative Controls | Pre approval of contractor prior to working on site | Completed | Health and Safety Compliance Approved Contractors process           |
| New      | Administrative Controls | Training  | Completed | University of Otago induction and site specific inductions          |
| New      | Administrative Controls | Auditing monitoring                                 | Completed | Regular monitoring of contractors on site                           |
| New      | Administrative Controls | Permit to work                                      | Completed | Permit to work systems are in place                                 |
| New      | Engineering Controls    | Electrical testing as per AS/NZ Standards           | Completed | All electrical testing to be conducted according to AS/NZ Standards |

## Reviews

| Date       | Person          | Findings   | Actions | Status    |
|------------|-----------------|--|---------|-----------|
| 31/01/2023 | Andrea McMillan | Added NZ Standards and control regarding electrical test and tag |         | Completed |

## Lone Worker

|  |                            |                        |
|--|----------------------------|------------------------|
| ID 8443  | Alert Number CRITICAL RISK | Next Review 31/01/2024 |
| GPS Longitude  | GPS Latitude               | Location               |
| Category Construction  | Reported By Karen Bonney   | Significant Risks Yes  |
| Site Lone Worker/Remote Worker (Critical Risk)   | Date 11/06/2021            | Status Completed       |
| Description Injury/Medical event not being able to access emergency services or assistance. Alone in building after hours with no emergency contacts. Psychological impact of working alone. |                            |                        |

## Risks Identified

| Risk            | Risk/Score |
|-----------------|------------|
| Personal Injury | - Medium   |

## Residual Risk Rating 5.00

| Type | Control                 | Control Name                   | Status    | Description  |
|------|-------------------------|--------------------------------|-----------|--|
| New  | Administrative Controls | Communication                  | Completed | Use of Get Home Safe System or similar system to track lone workers. Buddy system to check in/check out. |
| New  | Administrative Controls | Define risk                    | Completed | Define risk work that requires two persons present (e.g. use of machinery, laboratory work)              |
| New  | Administrative Controls | Rotation of lone worker shifts | Completed | Avoid long terms of working alone to minimise stress/isolation and to maintain contact with co-workers.  |

## Reviews

| Date       | Person          | Findings | Actions | Status    |
|------------|-----------------|----------|---------|-----------|
| 31/01/2023 | Andrea McMillan | NFA      |         | Completed |

## Plant and equipment Maintenance (Critical Risk)

|                        |  |                        |
|------------------------|--|------------------------|
| ID 8444                | Alert Number CRITICAL RISK   | Next Review 14/06/2022 |
| GPS Longitude          | GPS Latitude   | Location               |
| Category Activity/Task | Reported By Karen Bonney   | Significant Risks Yes  |
| Site                   | Date 14/06/2021  | Status Completed       |
| Description            | <p>Lack of operator competency/training resulting in injury/harm.<br/> Risk of electric shock (refer to electrical equipment)<br/> Unassessed plant and equipment for Health and Safety risks.<br/> Lack of appropriate guarding resulting in injury.<br/> Unrestricted access allowing operation of machinery without supervision resulting in harm.<br/> Poorly maintained plant resulting in harm/injury, exposure to fumes.<br/> Noise generated in excess of 85 decibels averaged over 8 hours or peak noise levels exceeding 140 decibels.<br/> Potential for generation of dust and air contaminants for operators.<br/> Adverse impact on the environment-hazardous substance spills, inappropriate disposal of waste.<br/> Lack of procedure for safe decommissioning and removal of plant at end of useful life (refer to "ionising Radiation" and "Non-ionising radiation" categories for specific information.</p> |                        |

### Hazard Identified

| Hazard Classifications | Hazard Category | Hazard                         | Risk            |
|------------------------|-----------------|--------------------------------|-----------------|
| Physical               | Equipment       | Contact with hot/cold surfaces | Risk of illness |
| Physical               | Equipment       | Guarding inadequate            | Risk of Injury  |
| Physical               | Equipment       | entanglement                   | Risk of Injury  |
| Physical               | Equipment       | Moving parts                   | Risk of Injury  |
| Physical               | Equipment       | Noise                          | Risk of illness |
| Physical               | Equipment       | Plant/equipment not maintained | Risk of Injury  |
| Physical               | Equipment       | Potential for projectiles      | Risk of Injury  |
| Physical               | Equipment       | Sharp blades/parts             | Risk of Injury  |
| Physical               | Equipment       | Dust generation                | Risk of illness |
| Physical               | Electrical      | Use in wet environment         | Electrocution   |
| Physical               | Electrical      | Faulty equipment               | Electrocution   |
| Physical               | Electrical      | Overloading                    | Fire            |

### Risks Identified

| Risk  | Risk/Score  |
|---|-------------|
| Personal Injury - (multiple types of plant and equipment with a range of hazards. Unsupervised or unskilled use has a high potential for injury.) | - Very High |

### Residual Risk Rating 6.00

| Type | Control                       | Control Name                                     | Status    | Description   |
|------|-------------------------------|--|-----------|---|
| New  | Engineering Controls          | External accreditation or certification          | Completed | Plant and equipment must be fit for purpose, maintained, repaired and certified as required. External certification may be required.  |
| New  | Administrative Controls       | Inspection and audits                            | Completed | Auditing and inspection of plant and equipment to ensure safe for operation   |
| New  | Administrative Controls       | Training   | Completed | Procedure guidelines in use, and competency training. restrict use to authorized users who have demonstrated competency.  |
| New  | Engineering Controls          | Guarding   | Completed | Ensure appropriate guarding is in place and used.   |
| New  | Administrative Controls       | Standard Operating Procedures available          | Completed | SOP documented and used for training, and available for all users.  |
| New  | Administrative Controls       | Internal Policy and/or Guidelines                | Completed | Pre-purchase health and safety risk assessment of plant for noise, guarding, hazardous substances. Training and maintenance provision by vendor as a part of purchasing arrangements. |
| New  | Personal Protective Equipment | Personal Protective Equipment                    | Completed | Wearing appropriate personal protective clothing and equipment as defined in the SOP.   |
| New  | Engineering Controls          | Noise levels managed below 85DBA or 140 DBA peak | Completed | Noise levels maintained below hearing loss levels at 85 DBA per 8 hour average or peak of 140 DBA.  |





## Hazard Identified

| Hazard Classifications | Hazard Category     | Hazard                          | Risk                             |
|------------------------|---------------------|---------------------------------|----------------------------------|
| Chemical               | Hazardous Chemicals | Body contact/exposure           | Injury (e.g. burns)              |
| Chemical               | Hazardous Chemicals | Fire or Explosion               | Injury (e.g. burns)              |
| Chemical               | Hazardous Chemicals | Spill or Release                | Damage to facilities/equipment   |
| Physical               | Storage             | Inappropriate storage           | Potential for injury             |
| Physical               | Transport           | Loss of control                 | Environmental                    |
| Physical               | Transport           | Loss of control                 | Potential for injury or fatality |
| Emergency              | Physical            | Potential injury or death       | Potential injury or death        |
| Physical               | Housekeeping        | Spills on surface               | Potential for illness/injury     |
| Physical               | Work practices      | Inexperienced workers           | Potential for injury             |
| Physical               | Work processes      | Inadequate operating procedures | Potential for injury             |
| Chemical               | Hazardous Chemicals | Body contact/exposure           | Potential illness                |
| Physical               | Work layout / area  | Layout not suitable for purpose | Potential for injury             |

## Risks Identified

| Risk  | Risk/Score  |
|---|-------------|
| Personal Injury - (potential for injury, burns, explosion, poisoning and environmental contamination by hazardous substances stored on site if not managed appropriately) | - Very High |

## Residual Risk Rating 5.00

| Type     | Control                       | Control Name                              | Status    | Description   |
|----------|-------------------------------|---|-----------|---|
| New      | Administrative Controls       | Internal Policy and/or Guidelines         | Completed | HSNO Approved COP for laboratories.   |
| New      | Engineering Controls          | Internal Policy and/or Guidelines         | Completed | Statutory budget, lab design and refurbishment safety in design to eliminate hazardous substances exposure (e.g. compliant storage cabinets, ventilation, shelving restraints)  |
| New      | Administrative Controls       | Training                                  | Completed | lab access and inductions required by all staff and contractors. Students - supervised until deemed competent.  |
| New      | Administrative Controls       | External accreditation or certification   | Completed | Hazardous Substances storage locations identified and certified under HSNO. Annual certification process. Specific emergency response training for each store/location in place   |
| New      | Personal Protective Equipment | Personal Protective Equipment             | Completed | Supply and use of personal protective clothing and equipment in laboratories in clinical areas. Examples include safety glasses/goggles, gloves, respiratory protection, lab coats.   |
| New      | Administrative Controls       | restricted substances management          | Completed | Restricted or controlled substances (psychoactive substances, Class A & B drugs, 1080, etc.) have permits issued for the use and transportation of substances, authorised by the certificating body (ministry of health, Environmental Protection Agency).              |
| New      | Administrative Controls       | Safety Data Sheets                        | Completed | Access to SDS available at all times, ensure familiar with information re: use and disposal of substances in use.   |
| New      | Administrative Controls       | Contractor management                     | Completed | Ensure all contractors working on site carry relevant SDS and are familiar with the safe use of any substances they are handling  |
| New      | Administrative Controls       | Grounds staff use of sprays               | Completed | Growsafe accreditation, signage and communications when using chemicals. Spray when minimum amount of people in area e.g. evenings  |
| Modified | Administrative Controls       | External accreditation or certification   | Underway  | WorkSafe NZ approved Code of Practice under review to meet requirements of HASAW (Hazardous Substances) regulations 2017 - current draft is not practicable for University laboratories. Growsafe qualifications for use of pesticides and herbicides for grounds staff |
| New      | Administrative Controls       | Hazardous substances inventory management | Underway  | Excel spreadsheet inventories only - no IT inventory support system for hazardous substances inventory and controls. part of supply chain project.  |

## Reviews

| Date       | Person       | Findings         | Actions | Status    |
|------------|--------------|------------------|---------|-----------|
| 31/01/2023 | Karen Bonney | Updated controls |         | Completed |

## Pressure Steam

|   |                            |                        |
|---|----------------------------|------------------------|
| ID 8456   | Alert Number CRITICAL RISK | Next Review 31/01/2024 |
| GPS Longitude   | GPS Latitude               | Location               |
| Category Construction   | Reported By Karen Bonney   | Significant Risks Yes  |
| Site Pressure Steam (Critical Risk)   | Date 11/06/2021            | Status Completed       |
| Description Risk of injury/fatality due to burns/explosion<br>Building and equipment damage |                            |                        |

## Risks Identified

| Risk            | Risk/Score |
|-----------------|------------|
| Personal Injury | - High     |

## Residual Risk Rating 6.00

| Type | Control                       | Control Name                | Status    | Description   |
|------|-------------------------------|-----------------------------|-----------|---|
| New  | Administrative Controls       | Qualifications and Training | Completed | Training and competency assessments for the safe operation of pressurized equipment (e.g. autoclaves).<br>Qualified boiler workers/engineers for boiler/steam (maintenance, installation, certification and monitoring) |
| New  | Personal Protective Equipment | Permit to work policy       | Completed | Permit to work policy and manual requirements for confined space work.  |
| New  | Administrative Controls       | Audit/Monitoring            | Completed | Annual certification requirements for all pressure vessels/equipment.   |
| New  | Personal Protective Equipment | PPE                         | Completed | Use of correct personal protective equipment and clothing as assessed   |
| New  | Administrative Controls       | SOP                         | Completed | Risk assessments and SOP's for the operation of pressurized vessels and equipment   |
| New  | Engineering Controls          | Comply with NZ standard     | Completed |   |
| New  | Engineering Controls          | WorkSafe COP                | Completed |   |

## Reviews

| Date       | Person       | Findings                                  | Actions | Status    |
|------------|--------------|---|---------|-----------|
| 31/01/2023 | Karen Bonney | Added URI to Worksafe and AS/NZ standards |         | Completed |

## Plant and equipment

|                       |                            |                        |
|-----------------------|----------------------------|------------------------|
| ID 8462               | Alert Number CRITICAL RISK | Next Review 31/01/2024 |
| GPS Longitude         | GPS Latitude               | Location               |
| Category Construction | Reported By Karen Bonney   | Significant Risks Yes  |
| Site                  | Date 14/06/2021            | Status Completed       |

Description Lack of operator competency/training resulting in injury/harm.  
 Risk of electric shock (refer to electrical equipment)  
 Unassessed plant and equipment for Health and Safety risks.  
 Lack of appropriate guarding resulting in injury.  
 Unrestricted access allowing operation of machinery without supervision resulting in harm.  
 Poorly maintained plant resulting in harm/injury, exposure to fumes.  
 Noise generated in excess of 85 decibels averaged over 8 hours or peak noise levels exceeding 140 decibels.  
 Potential for generation of dust and air contaminants for operators.  
 Adverse impact on the environment-hazardous substance spills, inappropriate disposal of waste.  
 Lack of procedure for safe decommissioning and removal of plant at end of useful life (refer to "ionising Radiation" and "Non-ionising radiation" categories for specific information.

### **Hazard Identified**

| Hazard Classifications | Hazard Category | Hazard                         | Risk            |
|------------------------|-----------------|--------------------------------|-----------------|
| Physical               | Equipment       | Contact with hot/cold surfaces | Risk of illness |
| Physical               | Equipment       | Guarding inadequate            | Risk of Injury  |
| Physical               | Equipment       | entanglement                   | Risk of Injury  |
| Physical               | Equipment       | Moving parts                   | Risk of Injury  |
| Physical               | Equipment       | Noise                          | Risk of illness |
| Physical               | Equipment       | Plant/equipment not maintained | Risk of Injury  |
| Physical               | Equipment       | Potential for projectiles      | Risk of Injury  |
| Physical               | Equipment       | Sharp blades/parts             | Risk of Injury  |
| Physical               | Equipment       | Dust generation                | Risk of illness |
| Physical               | Electrical      | Use in wet environment         | Electrocution   |
| Physical               | Electrical      | Faulty equipment               | Electrocution   |
| Physical               | Electrical      | Overloading                    | Fire            |

### **Risks Identified**

| Risk  | Risk/Score  |
|---|-------------|
| Personal Injury - (multiple types of plant and equipment with a range of hazards. Unsupervised or unskilled use has a high potential for injury.) | - Very High |

### **Residual Risk Rating 6.00**

| Type | Control                       | Control Name                                     | Status    | Description   |
|------|-------------------------------|--|-----------|---|
| New  | Engineering Controls          | External accreditation or certification          | Completed | Plant and equipment must be fit for purpose, maintained, repaired and certified as required. External certification may be required.  |
| New  | Administrative Controls       | Inspection and audits                            | Completed | Auditing and inspection of plant and equipment to ensure safe for operation   |
| New  | Administrative Controls       | Training   | Completed | Procedure guidelines in use, and competency training. restrict use to authorized users who have demonstrated competency.  |
| New  | Engineering Controls          | Guarding   | Completed | Ensure appropriate guarding is in place and used.   |
| New  | Administrative Controls       | Standard Operating Procedures available          | Completed | SOP documented and used for training, and available for all users.  |
| New  | Administrative Controls       | Internal Policy and/or Guidelines                | Completed | Pre-purchase health and safety risk assessment of plant for noise, guarding, hazardous substances. Training and maintenance provision by vendor as a part of purchasing arrangements. |
| New  | Personal Protective Equipment | Personal Protective Equipment                    | Completed | Wearing appropriate personal protective clothing and equipment as defined in the SOP.   |
| New  | Engineering Controls          | Noise levels managed below 85DBA or 140 DBA peak | Completed | Noise levels maintained below hearing loss levels at 85 DBA per 8 hour average or peak of 140 DBA.  |
| New  | Administrative Controls       | Personal or environmental monitoring             | Completed | hearing monitoring by Occupational Health team as identified by Noise levels. Occupational health monitoring procedure  |

|     |                         |   |           |   |
|-----|-------------------------|---|-----------|---|
| New | Administrative Controls | AS/NZS Standard 3003 Electrical installations | Completed | Body protected areas are used where necessary, and certified to the standard AS/NZS 3003 Electrical installations - Patient areas. Electrical installations in high risk areas, such as laboratories, as per AS/NZS 3003. |
| New | Administrative Controls | Internal Policy and/or Guidelines             | Completed | Electrical Testing of portable electrical equipment policy and guidelines - outlines required testing of equipment  |

## Reviews

| Date       | Person       | Findings | Actions | Status    |
|------------|--------------|----------|---------|-----------|
| 31/01/2023 | Karen Bonney | NFA      |         | Completed |

## Traffic Management

|   |                             |                        |
|---|-----------------------------|------------------------|
| ID 8495   | Alert Number Critical Risk  | Next Review 31/01/2024 |
| GPS Longitude                                   | GPS Latitude                | Location               |
| Category Site                                   | Reported By Andrea McMillan | Significant Risks Yes  |
| Site  | Date 31/01/2023             | Status Completed       |
| Description Field activities conducted on roads |                             |                        |

## Hazard Identified

| Hazard Classifications | Hazard Category | Hazard             | Risk                             |
|------------------------|-----------------|--------------------|----------------------------------|
| Environment            | External        | Weather            | Personal injury                  |
| Physical               | Facility        | Inadequate signage | Potential for injury             |
| Physical               | Transport       | Moving vehicles    | Potential for injury or fatality |
| Physical               | Transport       | Moving vehicles    | Collision                        |

## Risks Identified

| Risk | Risk/Score  |
|------|-------------|
|      | - Very High |

## Residual Risk Rating 6.00

| Type     | Control                       | Control Name                      | Status    | Description  |
|----------|-------------------------------|-----------------------------------|-----------|--|
| Modified | Administrative Controls       | Training and/or Supervision       | Completed | Participants trained and inducted on traffic management requirements as per plan, with specific hazards and controls identified. |
| Modified | Administrative Controls       | Internal Policy and/or Guidelines | Completed | Internal guidelines and policy compliance, including contractors.  |
| Modified | Administrative Controls       | External Compliance Documents     | Completed | Traffic Management standards - Safety Management plan in place.  |
| Modified | Administrative Controls       | Signage                           | Completed | Road signage placed as required by traffic management plan.  |
| Modified | Administrative Controls       | Emergency Planning                | Completed | Having plans in place for potential emergencies involving vehicle incidents on location.   |
| Modified | Administrative Controls       | Licensing/certifications          | Completed | Only certified traffic managers able to develop traffic management plans for submission to DCC.                                  |
| Modified | Personal Protective Equipment | Personal Protective Equipment     | Completed | Personal Protective Equipment (PPE) is worn as appropriate and required by traffic management plan                               |

## Reviews

| Date       | Person          | Findings                 | Actions | Status    |
|------------|-----------------|--------------------------|---------|-----------|
| 31/01/2023 | Andrea McMillan | Updated control measures |         | Completed |

## Sharps

|               |   |              |               |                   |            |
|---------------|---|--------------|---------------|-------------------|------------|
| ID            | 8497  | Alert Number | CRITICAL RISK | Next Review       | 31/01/2024 |
| GPS Longitude |   | GPS Latitude |               | Location          |            |
| Category      | Activity/Task   | Reported By  | Karen Bonney  | Significant Risks | Yes        |
| Site          |   | Date         | 15/06/2021    | Status            | Completed  |
| Description   | Items and equipment with potential to cause cut or puncture injuries, e.g. needles, scalpel blades, broken glass. |              |               |                   |            |

## Hazard Identified

| Hazard Classifications | Hazard Category | Hazard             | Risk           |
|------------------------|-----------------|--------------------|----------------|
| Physical               | Equipment       | Sharp blades/parts | Risk of Injury |

## Risks Identified

| Risk  | Risk/Score |
|---|------------|
| Personal Injury - (Potential for injury from sharp tools/plant/materials) | - High     |

## Residual Risk Rating 5.00

| Type     | Control                 | Control Name                      | Status    | Description   |
|----------|-------------------------|-----------------------------------|-----------|---|
| Modified | Administrative Controls | Correct disposal of sharp objects | Completed | Dispose of sharp materials correctly as relative to the material. Maintain safe level of housekeeping |
| Modified | Administrative Controls | Training and/or Supervision       | Completed | Use of PPE when handling sharp objects. Housekeeping when disposing of materials                      |

## Reviews

| Date       | Person             | Findings                 | Actions | Status    |
|------------|--------------------|--------------------------|---------|-----------|
| 22/01/2016 | Bonney, Karen June |                          |         | Completed |
| 15/06/2021 | Karen Bonney       | Updated                  |         | Completed |
| 31/01/2023 | Andrea McMillan    | Updated control measures |         | Completed |

## Environment - thermal issues

|               |   |              |               |                   |            |
|---------------|---|--------------|---------------|-------------------|------------|
| ID            | 8505  | Alert Number | Critical Risk | Next Review       | 15/02/2024 |
| GPS Longitude |   | GPS Latitude |               | Location          |            |
| Category      | Environmental   | Reported By  | Nevan Trotter | Significant Risks | Yes        |
| Site          |   | Date         | 12/02/2013    | Status            | Completed  |
| Description   | Thermal issues - hot, cold etc<br>See Policy at:<br><a href="http://www.otago.ac.nz/administration/policies/otago040359.html">http://www.otago.ac.nz/administration/policies/otago040359.html</a> |              |               |                   |            |

## Hazard Identified

| Hazard Classifications | Hazard Category                                | Hazard                      | Risk                             |
|------------------------|--|-----------------------------|----------------------------------|
| Environment            | Internal                                       | Thermal Issues              | Overheating                      |
| Physical               | Building related                               | Excessive heat in buildings | Potential for illness/discomfort |
| Psychosocial           | Stress due to uncomfortable working conditions | Excessive heat in buildings | Stress levels                    |

## Risks Identified

| Risk | Risk/Score |
|------|------------|
|      | - Medium   |

## Residual Risk Rating 4.00

| Type     | Control                 | Control Name                      | Status    | Description  |
|----------|-------------------------|-----------------------------------|-----------|--|
| Modified | Administrative Controls | Internal Policy and/or Guidelines | Completed | Awareness and compliance with University of Otago Thermal Guidelines.<br><a href="http://www.otago.ac.nz/administration/policies/otago040359.html">http://www.otago.ac.nz/administration/policies/otago040359.html</a> |
| Modified | Engineering Controls    | Ventilation                       | Completed | Ensure appropriate ventilation is available and used.<br>Future building design incorporates assessment for air conditioning.<br>Temporary equipment available e.g. use of fans  |
| New      | Engineering Controls    | Applied thermal controls          | Completed | Consider application of solar protection film, double glazing.   |
| New      | Administrative Controls | Adjust work environment           | Completed | Weather appropriate clothing, footwear.<br>Adjust working hours, working from home.  |

## Reviews

| Date       | Person             | Findings                              | Actions | Status    |
|------------|--------------------|---------------------------------------|---------|-----------|
| 06/12/2017 | Bonney, Karen June | Added link to Thermal Policy in files |         | Completed |
| 16/04/2020 | Karen Bonney       |                                       |         | Completed |
| 15/02/2023 | Andrea McMillan    | Updated controls                      |         | Completed |

## Lone Worker

|               |  |              |               |                   |            |
|---------------|--|--------------|---------------|-------------------|------------|
| ID            | 8510   | Alert Number | CRITICAL RISK | Next Review       | 31/01/2024 |
| GPS Longitude |  | GPS Latitude |               | Location          |            |
| Category      | Construction   | Reported By  | Karen Bonney  | Significant Risks | Yes        |
| Site          | Lone Worker/Remote Worker (Critical Risk)  | Date         | 11/06/2021    | Status            | Completed  |
| Description   | Injury/Medical event not being able to access emergency services or assistance.<br>Alone in building after hours with no emergency contacts.<br>Psychological impact of working alone. |              |               |                   |            |

## Risks Identified

| Risk            | Risk/Score |
|-----------------|------------|
| Personal Injury | - Medium   |

## Residual Risk Rating 5.00

| Type | Control                 | Control Name                   | Status    | Description  |
|------|-------------------------|--------------------------------|-----------|--|
| New  | Administrative Controls | Communication                  | Completed | Use of Get Home Safe System or similar system to track lone workers. Buddy system to check in/check out. |
| New  | Administrative Controls | Define risk                    | Completed | Define risk work that requires two persons present (e.g. use of machinery, laboratory work)              |
| New  | Administrative Controls | Rotation of lone worker shifts | Completed | Avoid long terms of working alone to minimise stress/isolation and to maintain contact with co-workers.  |

## Reviews

| Date       | Person          | Findings | Actions | Status    |
|------------|-----------------|----------|---------|-----------|
| 31/01/2023 | Andrea McMillan | NFA      |         | Completed |

## Building

|   |                             |                        |
|---|-----------------------------|------------------------|
| ID 8517   | Alert Number Critical Risk  | Next Review 02/03/2024 |
| GPS Longitude                                       | GPS Latitude                | Location               |
| Category Activity/Task                              | Reported By Andrea McMillan | Significant Risks No   |
| Site  | Date 02/03/2023             | Status Completed       |
| Description Building failures, potential for injury |                             |                        |

## Hazard Identified

| Hazard Classifications | Hazard Category  | Hazard  | Risk                             |
|------------------------|------------------|---|----------------------------------|
| Physical               | Building related | Spalling concrete                                 | injury from falling debris       |
| Physical               | Building related | Excessive heat in buildings                       | Potential for illness/discomfort |
| Physical               | Building related | Building components failure e.g falling shelving, | Risk of injury                   |
| Environment            | Internal         | Restricted space                                  | Overcrowding                     |
| Environment            | Internal         | Thermal Issues                                    | Overheating                      |

## Risks Identified

| Risk            | Risk/Score |
|-----------------|------------|
| Personal Injury | - High     |

## Residual Risk Rating 6.00

| Type | Control                 | Control Name             | Status    | Description   |
|------|-------------------------|--------------------------|-----------|---|
| New  | Administrative Controls | Building Code compliance | Completed | Ensure building is compliant and has a current Certificate of compliance          |
| New  | Engineering Controls    | Maintenance              | Completed | Maintenance schedule for buildings  |
| New  | Elimination             | Design of new builds     | Completed | Design process involves end users and technical experts to ensure fit for purpose |