Health and Safety Guidelines: HSG 7.1

Incident Notification and Investigation

1. Purpose

This document describes the University’s processes for reporting and investigating health and safety Incidents and Near Misses.

2. Scope

This document applies to the Executive Committee, Leaders, Supervisors, First Aid Officers, the Health and Safety Team, Health and Safety Committees, and Workers.

3. Definitions

In the context of the Health and Safety Management System Framework:

(a) Dangerous Occurrence means an event occurring in the course of work that exposes a Worker or any other person to a serious risk to a person’s health or safety emanating from an immediate or imminent exposure to:

(i) an uncontrolled escape, spillage or leakage of a substance;

(ii) an uncontrolled implosion, explosion or fire;

(iii) an uncontrolled escape of gas or steam;

(iv) an uncontrolled escape of a pressurised substance;

(v) electric shock;

(vi) the fall or release from a height of any plant, substance or thing;

(vii) the entrapment of a person in a confined space;

(viii) the entrapment of a person in machinery;

(ix) the collapse or partial collapse of a structure; or

(x) the collapse or failure of an excavation or of any shoring supporting an excavation.

(b) First Aid Officer means a person who has been appointed as a first aid officer
and who:

(i) holds a current first aid certificate or occupational first aid certificate issued after successfully completing a WorkCover approved first aid course, or

(ii) is qualified as a Level 3 or greater NSW ambulance officer, or

(iii) is qualified a medical practitioner, or

(iv) is a registered nurse.

(c) **First Aid Treatment** means a single treatment and subsequent observation of minor injuries such as scratches, cuts, burns, splinters, and strains. This includes an incident that requires medical assessment to determine if an injury has occurred where the assessment determines that no treatment is required and the person returns to their normal duties without modifications.

(d) **Hazard** means a situation, condition, state of affairs or event that exposes a Worker to a risk to his or her health or safety during the course of work.

(e) **IMS** means the University’s online incident management system.

(f) **Incident** means an unplanned event that causes, or could have caused an illness or injury to a Worker.

(g) **Lost Time Injury** or **LTI** means a work related injury or illness which causes a Worker to be unfit for work for one full shift on any day subsequent to the day or shift on which the injury or illness occurring.

(h) **Leaders/Supervisors** means any member of the University who is responsible for supervising staff and/or undergraduate or postgraduate students and/or for leading research projects.

(i) **Executive Committee** means the Vice-Chancellor, the Deputy Vice-Chancellors, the Pro Vice-Chancellors, the Chief Operating Officer and the Chief Financial Officer.

(j) **Medical Treatment Injury** or **MTI** means a work-related incident that results in injury or illness that requires medical treatment beyond the scope of the initial first aid treatment provided by a medical practitioner or other qualified medical person.
(k) **Near Miss** means an unplanned Incident which did not result in an injury or illness to a Worker.

(l) **Regulatory requirements** means the legal obligations imposed upon the University, its officers and employees, and other Workers under:

(i) the *Work Health and Safety Act 2011* (NSW); and

(ii) the *Work Health and Safety Regulation 2017* (NSW).

(m) **Notifiable Incident** means an Incident which is notifiable to SafeWork NSW and includes:

(i) a Dangerous Occurrence; or

(ii) the death of a person; or

(iii) a serious injury or illness.

(n) **Serious Injury or Illness** means an injury or illness requiring a Worker to have immediate treatment as a hospital in-patient which includes:

(i) amputation of any part of the body;

(ii) serious head injury;

(iii) serious eye injury;

(iv) serious burn;

(v) separation of the skin from an underlying tissue (e.g. degloving or scalping);

(vi) spinal injury;

(vii) loss of a bodily function; or

(viii) treatment for serious lacerations involving subcutaneous tissue; or

(ix) Medical Treatment within 48 hours of exposure to a substance.

(o) **Total Recordable Injuries** means the combination of LTIs and MTIs.

(p) **Worker** includes an employee, conjoint, student on work experience, contractor, sub-contractor, and volunteer.
4. Responsibilities

4.1 Executive Committee

The Executive Committee should:

(a) Ensure appropriate processes are in place for notifying and investigating Incidents and Notifiable Incidents;

(b) Ensure any corrective actions arising from an investigation of an Incident or a Notifiable Incident are implemented; and

(c) Ensure that the University is complying with Regulatory requirements in relation to any Notifiable Incidents.

4.2 Leaders and Supervisors

Leaders and Supervisors should:

(a) Ensure that Incidents that occur within their areas of responsibility are reported and that reports are entered into the IMS and that the UON Health and Safety (H&S) Team are notified straight away when an injury occurs that requires medical treatment so that support can be provided to the injury or ill person and to the relevant Leader/Supervisor;

(b) Ensure that investigations of any Incidents or Notifiable Incidents are completed and the details entered into the IMS;

(c) Ensure that any Incidents or Notifiable Incidents are followed up to monitor implementation of corrective actions and closed when actions have been completed; and

(d) Ensure that any Notifiable Incidents are notified to the Health and Safety Team immediately so that the Health and Safety Team can provide advice and support regarding the report to SafeWork NSW.

4.3 Health and Safety Team

The Health and Safety Team should:

(a) Communicate Incident recording and reporting requirements to stakeholders and provide relevant training where required;

(b) Ensure Workers are given access to IMS and provided with instruction on its use;
(c) Assist Leaders and Supervisors with determining if an incident is notifiable to SafeWork NSW and assisting with the notification when required;

(d) Provide advice to the treating medical practitioner regarding the UON Injury Management and Return to Work programs;

(e) Provide advice regarding the appropriate level of referral for treatment and initiating a Workers’ Compensation claim if necessary;

(f) Assist Workers who have been assigned the responsibility of investigating Incidents or Notifiable Incidents when assistance is needed or when the severity determines that additional input is required; and

(g) Report Incident data to the Executive Committee monthly and to the University Council quarterly.

4.4 Workers

Workers should:

(a) report and record Incidents, Notifiable Incidents, Near Misses and Hazards; and

(b) fully co-operate in any investigation relating to an Incident or Notifiable Incident.

5. Guidelines

5.1 First response to an Incident

(a) Incidents should be reported by Workers to their Leader or Supervisor as soon as practicable after the Incident occurs, and ideally not later than before the end of the day.

(b) The relevant Leader or Supervisor should notify the Health and Safety Team of the Incident as soon as practicable if a Worker requires Medical Treatment. Refer to Attachment 1 - Incident Reporting Flowchart.

(c) Where a Serious Incident has occurred, an ambulance should be called immediately by the first responding Leader, Supervisor, First Aid Officer or non-injured Worker, who should also immediately inform Security so they can direct the ambulance to where the injured Worker is on campus.

(d) Dangerous Occurrences must be reported to the relevant Leader or Supervisor immediately.
(e) Where other people may be exposed to a hazard as a result of an Incident or Notifiable Incident, steps should be taken as soon as possible by the Leader or Supervisor to remove Workers and other persons from the affected area until the hazard is removed or controlled.

5.2 Medical Treatment

(a) First Aid Treatment should be rendered to the injured Worker by the First Aid Officer for the location.

(b) Where Medical Treatment is required, arrangements should be made by the First Aid Officer, Leader or Supervisor, or the Health and Safety Team, for prompt referral to the University Health Service at the Callaghan campus or to a preferred medical provider at other campuses.

5.3 Recording Incidents in IMS

(a) Once any hazard associated with the Incident or Notified Incident has been removed or is under control, the relevant Leader, Supervisor, First Aid Officer, injured person or other responsible person should enter the details of the Incident into the IMS.

(b) It is important that the information is entered as soon as practicable after the Incident, in most cases on the same day.

5.4 Investigation

(a) IMS will automatically email the Worker’s Supervisor and the Health and Safety Team.

(b) Following receipt of the notification from IMS, the Supervisor should undertake an investigation as soon as practicable.

(c) The purpose of investigating Incidents is to:

(i) Determine the root causes of the Incident or Notifiable Incident;

(ii) Identify any new hazards; and

(iii) Identify and implement suitable corrective and preventive actions.

(d) More than one person’s input is valuable in any investigation. Other persons who may be asked by the Supervisor to contribute include members of a Health and Safety Committee, other area supervisors, Workers from the injured Worker’s team, and members of the Health and Safety Team.
For serious incidents, an investigation team will be selected which may include other appropriate personnel who can provide specialist input e.g. an engineer if a piece of equipment has failed; an electrician if electrical energy was involved.

5.5 **Levels of investigation**

The nature of the Incident will determine the level of investigation required. Incidents are classified into 3 levels to determine the appropriate level of investigation response:

(a) **Level 1 incidents**: Incidents of a minor nature, such as:

(i) Injuries requiring only First Aid Treatment;

(ii) Injuries which require minor Medical Treatment but which are not Lost Time Injuries;

(iii) Identified hazards which do not present a serious risk of injury; and

(iv) Minor property damage.

Level 1 incidents are investigated at a local level by Supervisors to:

(v) review the details of the Incident;

(vi) identify possible contributing factors;

(vii) determine a cause of the Incident;

(viii) assess the risk of the hazard; and

(ix) implement appropriate corrective actions.

(b) **Level 2 incidents**: Incidents that result in a Lost Time Injury but do not involve a Serious Illness or Injury or a Dangerous Occurrence.

A Level 2 incident requires in-depth assessment, requiring an investigation team led by the Supervisor with input from the Health and Safety Team. The investigation should include the following steps:

(i) Collection of facts to consider possible contributing factors;

(ii) Determination of root causes;

(iii) Determination of corrective and preventative actions;
(iv) Record of findings;
(v) Communication of findings;
(vi) Review of implemented corrective actions.

(c) **Level 3 incidents:** Incidents that are Notifiable Incidents.

As the Notifiable Incident has to be reported to SafeWork NSW, the scene of the Notifiable Incident must not be disturbed unless actions are required to help or remove trapped or injured persons, to make the site safe, or the actions are directed or permitted by a SafeWork NSW inspector.

The Manager, Health and Safety will liaise with SafeWork NSW and undertake an investigation of the Notifiable Incident as per Level 2 incident investigation, and in accordance with any directions provided by SafeWork NSW.

5.6 **Contributing Factors**

The first step of an investigation is the collection of all the information relating to the contributing factors which led to the Incident or Notifiable Incident occurring. Information will include all or some of the following:

(a) Interviews with the people directly involved in the Incident or Notifiable Incident e.g. injured person; witnesses; Leader and/or supervisor of the location;

(b) Inspection of the Incident or Notifiable Incident site;

(c) Use of photos, video footage and diagrams as required;

(d) Re-enactments to determine the sequence of events; and

(e) Review of relevant documentation e.g. training records, risk assessments, Standard Operating Procedures; hazard reports; previous Incident reports; Health and Safety Committee minutes.

5.7 **Root Causes**

The objective of an investigation is to find the root causes of the Incident or Notifiable Incident, and not to jump to the most obvious reason, which may have only been the last step in a series of factors that led to the Incident or Notifiable Incident.

Once possible contributing factors have been identified, a good methodology for
identifying the root cause(s) is to use the “5 whys”. An example of a process flow describing this method is in Attachment 2 which links the cause and effect relationships which led to the Incident or Notifiable Incident.

When using the root cause diagram, the Incident or Notifiable Incident should be positioned to the left and by repeatedly asking “why” the causes identified are placed on the right. The process continues until no further causes can be identified by asking “why”. In the example the event is a back injury, caused by falling down the stairs caused by the person slipping etc.

Root causes are often due to one or more system failures and the process described will lead to determining the system failures which include:

(a) Inadequate plant/equipment/personal protective equipment;

(b) Inadequate procedures/instructions;

(c) Inadequate training;

(d) Inadequate management/supervision;

(e) Inappropriate or inadequate work environment;

(f) Inadequate management of hazards and risks;

(g) Inappropriate actions and/or behaviour by an individual or team;

(h) Inadequate management system;

(i) Inadequate contractor management.

See Attachment 4 for a checklist that can be used to help to determine root causes.

5.8 **Corrective and Preventive Actions**

Once the root causes have been identified appropriate corrective actions can be determined.

Corrective actions should:

(a) Control the hazard to an acceptable level;

(b) Not introduce a new hazard;

(c) Consider the “hierarchy of control” in structuring appropriate risk reduction activities. The hierarchy of controls addresses the preferred methods for
eliminating or minimising a hazard:

(i) Elimination: removing the hazard altogether e.g. by finding a different way of doing a task;

(ii) Substitution: introducing a less hazardous process or substance;

(iii) Engineering: introducing physical protection to separate the hazard from persons or to contain the hazard, or to modify plant and equipment;

(iv) Administrative: procedures and processes such as training, risk assessments, Standard Operating Procedures and safety meetings;

(v) Personal Protective Equipment (PPE): e.g. safety eye wear, hearing protection, safety footwear, safety gloves, protective overalls, the last line of defence.

For more information on the hierarchy of control see UON HSG 4.1, Risk Management.

5.9 Record of Findings

The template in Attachment 3 can be used to record the findings from the investigation. Once the investigation has been completed the findings and corrective actions are to be entered into IMS.

5.10 Communication of Findings

Once completed, the investigation report for Level 2 and 3 Incidents is to be distributed to the Pro Vice-Chancellor, Head of School or Director and the Health and Safety Team. A copy is also to be tabled at the relevant Health and Safety Committee, and the University Health and Safety Committee, for discussion and review of the corrective actions.

Where the investigation findings are relevant to other parts of the University, the Health and Safety Team will generate a Safety Alert which is distributed to all Faculties and Divisions so everyone can share the learnings and apply them to their own areas of responsibility.

5.11 Review and Follow Up

To ensure that corrective actions arising from an investigation are implemented, progress will be monitored against assigned timelines and the actions recorded in IMS.
Progress can be monitored during regular Faculty, School, Division or Unit meetings and through the relevant Health and Safety Committee. Corrective actions which have not been implemented within the assigned time for completion should be raised with the Supervisor or other person responsible for the location concerned.

5.12 **Advice from the Health and Safety Team**

The Health and Safety Team can provide assistance and support to the Leader or Supervisor of the area where the Incident occurred. For example, the Health and Safety Team can:

(a) Assist in determining if there has been a Notifiable Incident and in communicating with SafeWork NSW if necessary;

(b) Provide input to an investigation of an Incident if required.

6. **References**

- UON Health and Safety Management System Framework
- UON HSP 4.1 Risk Management
- UON HSP 7.3 Injury Management

7. **Attachments**

1. Serious Incident Notification Flowchart
2. Process Flow for Root Cause Analysis
3. Incident Investigation Template
4. Root Cause Analysis Checklist
Attachment 1. Serious Incident Notification Flowchart

![Flowchart Image]

---

UON HSG 7.1 Incident Notification & Investigation

Version 4: Issued Dec 2018

Uncontrolled when printed
Notes:
Immediate actions after an incident - Emergency response procedures should be followed when an incident occurs and take action to make the area safe.

Step 1 - Workers should contact their supervisor to inform of any injury or serious incident as soon as practicable or if outside hours UON Security Team. If unsure is an injury or serious incident has occurred workers should inform their supervisor to ask.

Step 5 – The incident site must be preserved until an inspector arrives or directs otherwise, including the incident is notified to SafeWork NSW.

Step 6 – Supervisor to inform H&S team of serious incident or injuries and confirm if incident is notifiable to SafeWork NSW. Divisional/ Faculty Leaders include line managers of the worker up to and including Executive Committee Member for the Division or Faculty of notifiable incident.

Step 8 – Notifiable incident definitions included below.

Step 13 – If H&S unable to make notification (e.g. outside hours) UON delegate to make notification to SafeWork NSW. SafeWork NSW Reference number and record of notification to be provided to relevant parties and included in AIMS incident record.

Step 14 – All incidents must be recorded in AIMS, including incidents and hazards reported to security.

Step 17 – Undertake investigation as per Section 5.4 Investigation of HSG 7.1 Incident Notification & Investigation.

Security Services: Where security are notified of an incident they will notify the responsible person for the work area and for restricted spaces this includes the nominated responsible person. (e.g. Lab responsible person as listed on the door of the lab) or IFS responsible Manager. Outside business hours notification will be made to the on-call IFS Supervisor. However this flowchart does not replace the Critical Incident Response Procedures and Team where this response is required.

Definition:
What is a “notifiable incident”

In the WHS Act, notifiable incident means:
(a) the death of a person, or
(b) a serious injury or illness of a person, or
(c) a dangerous incident.

A serious Injury or Illness of a person means an injury or illness requiring the person to have:

(a) immediate treatment as an in-patient in a hospital, or
(b) immediate treatment for:
   (i) the amputation of any part of his or her body, or
   (ii) a serious head injury, or
   (iii) a serious eye injury, or
   (iv) a serious burn, or
   (v) the separation of his or her skin from an underlying tissue (such as degloving or scalping), or
   (vi) a spinal injury, or
   (vii) the loss of a bodily function, or
   (viii) serious lacerations, or
   (c) medical treatment within 48 hours of exposure to a substance,
   and includes any other injury or illness prescribed by the regulations but does not include an illness or injury of a prescribed kind.

A dangerous Incident means an incident in relation to a workplace that exposes a worker or any other person to a serious risk to a person’s health or safety emanating from an immediate or imminent exposure to:

(a) an uncontrolled escape, spillage or leakage of a substance, or
(b) an uncontrolled implosion, explosion or fire, or
(c) an uncontrolled escape of gas or steam, or
(d) an uncontrolled escape of a pressurised substance, or
(e) electric shock, or
(f) the fall or release from a height of any plant, substance or thing, or
(g) the collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be authorised for use in accordance with the regulations, or
(h) the collapse or partial collapse of a structure, or
(i) the collapse or failure of an excavation or of any shoring supporting an excavation, or
(j) the inrush of water, mud or gas in workings, in an underground excavation or tunnel, or
(k) the interruption of the main system of ventilation in an underground excavation or tunnel, or
(l) any other event prescribed by the regulations, but does not include an incident of a prescribed kind.

Refer to the SafeWork Australia – Incident Notification Fact Sheet for information and guidance.
Attachment 2. Root Cause Analysis Process Flow

- Back injury
- Falling down stairs
- Slipped
- Not holding handrail
- Using mobile phone
  - Stairs slippery
  - Recent rain
  - Uncovered stairs
- Lack of tread
- Carrying objects
- Lost balance
- Rushing to next class
- Did not allocate travel time

Root Cause
1. Lack of or inadequate plant/equipment
2. Lack of or inadequate procedures/instructions
3. Lack of or inadequate training
4. Lack of or inadequate management/supervision
5. Inappropriate or inadequate work environment
6. Inappropriate actions and/or behaviour
7. Lack of or inadequate management system
8. Other contributory issues
Attachment 3. Incident Investigation Report Form

<table>
<thead>
<tr>
<th>Faculty / Division</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>School / Unit</td>
<td></td>
</tr>
<tr>
<td>Location of Incident</td>
<td></td>
</tr>
<tr>
<td>Responsible Leader</td>
<td></td>
</tr>
<tr>
<td>Supervisor</td>
<td></td>
</tr>
<tr>
<td>Date of incident</td>
<td></td>
</tr>
</tbody>
</table>

**INSTRUCTIONS**

**Description of the Incident.** Describe what happened. Do not try to identify the cause at this stage. Provide a diagram and photos if possible. Keep the description anonymous, names of persons involved should not be included.

**Equipment Being Used**
Identify all equipment being used at the time of the incident.

**Any Environmental Conditions that could have contributed to the Incident**
Describe factors such as weather conditions, visibility, lightness, temperature, accessibility, ventilation, hazard signage, labelling.

**Was there a Failure of any Existing Preventative Controls?**
Identify any failure in current controls e.g. ventilation not operating, work permit not used, guard not in place, standard operating procedure not followed, etc.

**Were There Any Deficiencies in the Operating Procedures?**
List any deficiency in the currently used standard operating procedure. Is how does the procedure need to be changed?

**Contributing Factors to the Incident**
From a review of the answers to the above questions list the factors that you think contributed to the incident. For instance:
- Equipment Related: Maintenance, electrical failure, mechanical failure, poor design, poor layout, wrong tools, inappropriate equipment, no operating instructions, inadequate isolation,
- Environment Related: Poor housekeeping, lighting, signage, labelling, ventilation,
- Administrative Related: Inadequate instructions, instructions misunderstood, failure to follow instructions, supervision, planning, procedures, training, speeding/hurrying, fatigue, work permits, personal protective equipment, workplace inspections, system audits,

**Root Causes of the Incident**
From the contributing factors that have been identified, determine the root causes of the incident. These are the fundamental deficiencies that led to a breakdown in the layers of preventative measures thus causing the incident to occur. There is generally more than one root cause and they usually relate to deficiencies in operating procedures or system failures. One way to determine the root causes is to take each contributing factor and keep asking “Why” until you run out of “Whys” – this will then be a root cause.

**Corrective Actions Required to Prevent a Similar Incident**
List all the actions that could be taken to prevent this incident from happening again.
<table>
<thead>
<tr>
<th>UON INCIDENT INVESTIGATION REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Description of Incident</strong></td>
</tr>
<tr>
<td><strong>2. Equipment being used at the time?</strong></td>
</tr>
<tr>
<td><strong>3. Environmental conditions that may have contributed to the incident?</strong></td>
</tr>
<tr>
<td><strong>4. Was there a failure of any preventative risk controls?</strong></td>
</tr>
<tr>
<td><strong>5. Were there any deficiencies in operating procedures?</strong></td>
</tr>
<tr>
<td><strong>6. Contributing factors to the incident</strong></td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
</tr>
<tr>
<td><strong>7. Root causes</strong></td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td><strong>8. Corrective actions</strong></td>
</tr>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>Action 1</td>
</tr>
<tr>
<td>Action 2</td>
</tr>
<tr>
<td><strong>9. Incident Management System:</strong> has the outcome of the investigation been entered into the online IMS?</td>
</tr>
<tr>
<td><strong>10. Hazard Identification:</strong> has a new hazard been identified and does a risk assessment need to be completed?</td>
</tr>
<tr>
<td><strong>11. Person Responsible for the Investigation</strong></td>
</tr>
<tr>
<td><strong>Name:</strong></td>
</tr>
<tr>
<td>Name 1</td>
</tr>
<tr>
<td>Name 2</td>
</tr>
<tr>
<td>Name 3</td>
</tr>
<tr>
<td><strong>12. Other Investigation Team Members</strong></td>
</tr>
<tr>
<td><strong>Name:</strong></td>
</tr>
<tr>
<td>Name 1</td>
</tr>
<tr>
<td>Name 2</td>
</tr>
<tr>
<td>Name 3</td>
</tr>
<tr>
<td><strong>13. Senior Manager Comments</strong></td>
</tr>
<tr>
<td><strong>Name:</strong></td>
</tr>
<tr>
<td>Name 1</td>
</tr>
</tbody>
</table>
### Attachment 4. Root Cause Analysis Checklist

#### Occurrence Details

<table>
<thead>
<tr>
<th>Incident/Ref No: ________</th>
<th>Time/Date Occurred: ________________</th>
<th>Potential Risk Level: __________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Involved: __________</td>
<td>Employee ☐ Contractor ☐ Other ☐</td>
<td></td>
</tr>
</tbody>
</table>

#### STEP 1

**WHAT WAS THE RESULT OF THIS INCIDENT?**

- ☐ Lost Time Injury (LTI)
- ☐ Medical Expense Only (MEO)
- ☐ First Aid Only (FAO)

#### WHY DID IT HAPPEN?

**STEP 2

**WHAT WAS THE TYPE OF INCIDENT?**

Select one

- ☐ Hitting objects
- ☐ Fall/slip/trip
- ☐ Hit by moving object
- ☐ Biological hazard
- ☐ Body stressing
- ☐ Exposure to sound and pressure

#### WHY DID IT HAPPEN?

**STEP 3

**WHAT WERE THE IMMEDIATE CAUSES?**

<table>
<thead>
<tr>
<th>INDIVIDUAL OR TEAM FACTORS</th>
<th>WORKPLACE FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Working without authority</td>
<td>☐ Lack of guards</td>
</tr>
<tr>
<td>☐ Failure to follow procedures</td>
<td>☐ Inadequate equipment</td>
</tr>
<tr>
<td>☐ Not using safety devices</td>
<td>☐ Defective tools</td>
</tr>
<tr>
<td>☐ Incorrect tools selected</td>
<td>☐ Congested workplace</td>
</tr>
<tr>
<td>☐ Improper lifting/movement</td>
<td>☐ Inadequate warning system</td>
</tr>
<tr>
<td>☐ Horseplay/inattention</td>
<td>☐ Fire hazard</td>
</tr>
<tr>
<td>☐ Failure to secure</td>
<td>☐ Noise/heat/dust/light</td>
</tr>
<tr>
<td>☐ Improper position</td>
<td>☐ Poor housekeeping</td>
</tr>
<tr>
<td>☐ Rushing</td>
<td>☐ Poor ventilation</td>
</tr>
</tbody>
</table>

#### WHY DID IT HAPPEN?

**STEP 4

**WHAT WERE THE UNDERLYING CAUSES?**

(CONTRIBUTING FACTORS)

<table>
<thead>
<tr>
<th>PERSONAL FACTORS</th>
<th>JOB FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Inadequate capability of individual</td>
<td>☐ Inadequate leadership/supervision</td>
</tr>
<tr>
<td>☐ Lack of knowledge</td>
<td>☐ Inadequate engineering</td>
</tr>
<tr>
<td>☐ Lack of skill</td>
<td>☐ Inadequate purchasing</td>
</tr>
<tr>
<td>☐ Motivation (lack of, or too much)</td>
<td>☐ Inadequate maintenance</td>
</tr>
<tr>
<td>☐ Stress - physical</td>
<td>☐ Abuse or misuse</td>
</tr>
<tr>
<td>☐ Stress - psychological</td>
<td>☐ Poor process design</td>
</tr>
<tr>
<td>☐ Inadequate capability of individual</td>
<td>☐ Inadequate work standards</td>
</tr>
</tbody>
</table>

#### WHY DID IT HAPPEN?

**STEP 5

**THE ROOT CAUSES ARE?**

<table>
<thead>
<tr>
<th>SYSTEM FAILURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Leadership &amp; accountability</td>
</tr>
<tr>
<td>☐ Risk assessment &amp; management</td>
</tr>
<tr>
<td>☐ People, training &amp; behaviours</td>
</tr>
<tr>
<td>☐ Engaging &amp; working with contractors</td>
</tr>
<tr>
<td>☐ Design, construction &amp; change</td>
</tr>
<tr>
<td>☐ Safe work practices &amp; rules</td>
</tr>
<tr>
<td>☐ Reward &amp; recognition</td>
</tr>
<tr>
<td>☐ Information &amp; documentation</td>
</tr>
<tr>
<td>☐ Customers and products</td>
</tr>
<tr>
<td>☐ Communications</td>
</tr>
<tr>
<td>☐ Emergency management</td>
</tr>
<tr>
<td>☐ Incidents analysis &amp; prevention</td>
</tr>
<tr>
<td>☐ Health and hygiene</td>
</tr>
<tr>
<td>☐ Hiring &amp; placement</td>
</tr>
<tr>
<td>☐ Measurement &amp; evaluation</td>
</tr>
<tr>
<td>☐ Planning &amp; scheduling</td>
</tr>
</tbody>
</table>