Incident Investigation Guidelines

Commencement Date: 02 December 2011
Category: Campus Life, Information Management

1. PURPOSE
This Incident Investigation Guideline is a guide to completing an incident investigation and the Incident Reporting and Investigation form. It is designed to meet the legislative requirements for incident reporting and investigation outlined in the OSH Act [1] and OHS Regulations [2].

2. PROCEDURE SUPPORTED
This Incident Investigation Guideline supports the Curtin University Incident Reporting and Investigation procedure.

3. APPLICATION
This guideline applies to Curtin University Managers, Supervisors, SHRs and anyone else assisting with the completion of incident reports and investigations.

4. DEFINITIONS
The following definitions apply to this Incident Reporting and Investigation Procedure:

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard</td>
<td>A situation that has the potential to harm a person or cause damage to the environment or property.</td>
</tr>
<tr>
<td>Hierarchy of Controls</td>
<td>A complete definition of Hierarchy of Controls is contained in the Writing Safe Work Procedures Guideline.</td>
</tr>
<tr>
<td>Illness</td>
<td>Any work related illness, including disease.</td>
</tr>
<tr>
<td>Incident</td>
<td>“Any unplanned event resulting in, or having a potential for injury, ill health, damage or other loss.” (AS/NZS 4801:2001 [3])</td>
</tr>
<tr>
<td>Serious injury or illness</td>
<td>An injury or illness that will result in the affected person losing one or more working days or shifts.</td>
</tr>
<tr>
<td>Actual Consequence</td>
<td>Actual Consequence is defined as insignificant, minor, moderate, major and catastrophic based on the University Health and Safety Risk Matrix. It describes the consequence of the incident.</td>
</tr>
<tr>
<td>Potential Risk</td>
<td>Potential risk is defined as low, medium, high or extreme based on the University Health and Safety Risk Matrix prior to any corrective actions or controls have been implemented.</td>
</tr>
<tr>
<td>Residual Risk</td>
<td>Residual risk is defined as low, medium, high or extreme based on the University Health and Safety Risk Matrix after recommended corrective actions or controls have been implemented.</td>
</tr>
</tbody>
</table>
5. EXCEPTIONS

Incidents of bullying and stress are to be reported using the online incident/hazard reporting system. These incidents are not required to be seen by a Manager or SHRs and will be managed in accordance with the University’s policy on *Bullying in the Workplace*.

6. CONDUCTING THE INCIDENT INVESTIGATION

6.1 Initial Investigation

Investigation procedures need to be systematic. The investigation team should:

- act as soon as possible after the incident;
- visit the scene before physical evidence is disturbed;
- not prejudge the situation;
- not remove anything from the scene;
- enquire if anyone else has moved anything; and
- take photographs and/or sketches to assist in reconstructing the incident.

6.2 After the initial Investigation

After the initial investigation is complete the team should:

- identify, label and store all evidence. For example, tools, defective equipment, fragments, chemical samples etc;
- interview each witness separately;
- ascertain if there have been any "near hits" in similar circumstances;
- record all sources of information;
- keep records to show that the investigation was conducted in a fair and impartial manner;
- review all potentially useful information, including design specifications, operating logs, purchasing records, previous reports, procedures, equipment manuals, job safety analysis reports, records of training and instruction of the people involved and experiences of people in similar workplaces/industries; and
- reconstruct the incident (while ensuring that another incident doesn’t occur) to assist in verifying facts, identify what went wrong and what can be done to prevent it happening again.

6.3 What to look for

Look for causes, not blame. Systems fail for many reasons and the people involved are not always the cause of the incident. Build a chain of events to identify all the causes. For the investigation to be successful it is necessary to establish the following information:
6.3.1 Events leading up to the incident
Investigate:

- the system of work being carried out and the adequacy or suitability of that system for the job;
- the instructions and/or training given for the work;
- any variation from instructions or standard work practices and the reasons for such variation;
- the workplace conditions, such as lighting, floor surfaces, stair treads and handrails, warning signs, temperature and weather (if the incident occurred outside);
- the exact location of the incident with sufficient detail for the spot to be readily identified by others reading the report;
- the materials in use or being handled;
- the type of transport or equipment in use; and
- whether adequate supervision was provided.

6.3.2 Facts of the incident itself
Investigate:

- the state of the system and the actions that occurred at the time;
- the people directly and indirectly involved;
- the tools, equipment, materials and fixtures directly connected; and
- the time the accident or incident occurred.

6.3.3 Facts regarding what occurred immediately after the incident
Investigate:

- any injuries or damage resulting directly from the incident;
- what people are involved, including those rendering aid; and
- any problems in dealing with the injuries or damage, for example faulty extinguisher, isolation switch difficult to locate.

6.3.4 Essential factors and causes
To conduct an effective accident/incident investigation, it is essential to look at all aspects of design, environment/work process, and behaviour components, such as plant, procedures and people, rather than trying to isolate a single cause.

Design components
Poor systems design may result in exposure to hazards such as:

- unguarded dangerous parts of machinery;
- ineffective safety devices;
- provision of makeshift plant, equipment and tools; and
- inadequate ventilation.
Environmental components/work processes

How people function in the work environment depends on what they experience in it. Environmental factors may be both physical and social.

The way in which people do the job, the procedures and work processes followed are important factors in incident investigation. Poor work process may lead to hazard exposure.

Behavioural components

Examples include misuse of safeguards, improper use of tools and equipment, disregard of cautionary notices, failure to wear personal protective equipment, horseplay and poor standards of housekeeping. Poor practices may indicate that improved communication, further training or some other action, such as supervision, are necessary.

The common practice in industrial accident/incident investigation is to look for the cause of any accident/incident. Searching for a single cause of an accident/incident is restrictive. It focuses attention on only one, or at best a very few, of the essential factors while others, which may be more easily controlled, pass unnoticed.

7. DOCUMENTING THE INVESTIGATION

7.1 Login to RMSS and Print Investigation Form

As an investigator you will be assigned a temporary login and password. Login to RMSS at http://healthandsafety.curtin.edu.au/event_and_hazard/index.cfm and use your temporary login and password to login.

7.2 Complete the Investigation Form

Incident Investigations can be completed using the Incident Reporting and Investigation form available from the Event and Hazard page under Health and Safety on the Curtin University website at:


Managers and Supervisors shall monitor and record progress of implementing of corrective actions and notify the Safety Advisor once implementation of corrective actions is finalised.

The following describes the sections of the template Incident Investigation form:

1. [Click to add Short Title] Incident: Add a short title that best describes the incident.

[Click to add Short Title] Incident Reporting and Investigation Form

Incident Details

<table>
<thead>
<tr>
<th>INCIDENT DETAILS</th>
<th>Incident Report No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident reported by</td>
<td>Date of incident</td>
</tr>
<tr>
<td>Person(s) injured/involved</td>
<td>Date of report</td>
</tr>
</tbody>
</table>
2. **Incident Report No:** Add the RMSS reference number if known.

3. **Incident Reported by:** Name of the person who first reported the incident.

4. **Persons Injured/involved:** Name of the person injured or involved.

5. **Date of incident:** Date the incident occurred.

6. **Date of report:** Date the report is finalised.

### Investigation Details

<table>
<thead>
<tr>
<th>Name of person completing this form</th>
<th>Date completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone number</td>
<td>Email address</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investigation Team members</th>
<th>Telephone number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Telephone number</td>
</tr>
<tr>
<td></td>
<td>Telephone number</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name(s) of persons interviewed as part of this investigation? (Attach witness statements if applicable)</th>
<th>Telephone number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Telephone number</td>
</tr>
<tr>
<td></td>
<td>Telephone number</td>
</tr>
</tbody>
</table>

7. **Name of person completing this form:** Insert the name of the author of the report.

8. **Telephone Number:** The number of the author of the report.

9. **Email Address:** The email address of the author of the report.

10. **Investigation Team members:** List the names and contact telephone numbers of the investigation team.

11. **Name(s) of persons interviewed as part of this investigation:** List all witnesses interviewed.
### Description of Events

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12. Describe the task being performed at the time of the incident:</strong></td>
<td>Free text.</td>
</tr>
<tr>
<td><strong>13. Describe the sequence of events leading to the incident:</strong></td>
<td>Free text.</td>
</tr>
<tr>
<td><strong>14. Describe equipment tools involved:</strong></td>
<td>List any equipment or tools involved in the incident.</td>
</tr>
<tr>
<td><strong>15. Describe materials being handled:</strong></td>
<td>List any materials being handled.</td>
</tr>
<tr>
<td><strong>16. Describe any unusual condition(s):</strong></td>
<td>For example, wet weather.</td>
</tr>
<tr>
<td><strong>17. Conclusion:</strong></td>
<td>Describe your conclusions about the incident.</td>
</tr>
</tbody>
</table>
### Root Cause Analysis

#### Contributing Factors Prompts

- **People (Supervision, experience, training, fitness for work etc)**
  - Unclear reporting relationship
  - Unclear/Conflicting responsibility and accountability
  - Inadequate/incorrect instruction
  - Misunderstanding of instructions
  - Inadequate supervision/monitoring
  - Inadequate feedback on performance standards
  - Supervisors not Leading by example
  - Non-compliance or unauthorized working
  - Improper posture or technique for the task
  - Physical incapability/deficiency
  - Working at unsafe pace / Trying to save time
  - Risk Taking
  - Inappropriate behaviour/horseplay
  - Inadequate communication between workers/supervisors/others
  - Language barrier
  - Lack of or Inadequate Training
  - Inadequate instructor qualification
  - Lack of experience/competence / Knowledge suitable for the task
  - Failure to follow Safe Work Procedure
  - Inadequate or lack of Safety briefings/meetings
  - Fatigue
  - Working under the influence of Drugs (incl Medications) and Alcohol
  - Stress
  - Psychological condition/incapability
  - Inattention / Lack of Awareness / Distraction
  - Act of violence
  - Hazard identification/perception
  - Occupational Hygiene Practices

- **Organisational/Procedural (formal, informal, written, verbal, Client, Contractor, Sub-Contractor)**
  - Inadequate work planning
  - Inadequate pre-task checking
  - No or Inadequate job safety analysis
  - Inadequate identification and notification of worksite risks / hazards
  - None or inadequate Procedures / Guidelines/Standards/Specifications
  - Operating procedures not updated after making changes / Out dated revisions still in use
  - Inadequate incident reporting / investigation
  - Use of non-approved or not induced contractor
  - Unsuitable or incorrect transport arrangements
  - Inadequate safety and health information
  - Improper salvage and / or waste disposal
  - No corrective action responsibility assigned
  - No accountability for corrective action
  - Inadequate or inappropriate controls applied
  - Inadequate audit / inspection / monitoring

- **Equipment/Materials (machinery, systems and Absent/Failed Defences)**
  - Failing to use or overriding safety device
  - Personal protective equipment not used
  - Improper use of personal protective equipment
  - Inadequate or Nil Personal protective equipment
  - Working/service on energized equipment
  - Inadequate guards or protective devices
  - Defective guards or protective devices
  - Disabling or removal of guards, warning systems or safety device
  - Improper use of equipment and tools
  - Use of defective equipment and tools
  - Inadequate or Unavailable appropriate equipment/tools
  - Improper placement of tools, equipment or materials
  - Inadequate ergonomic design
  - No independent design review
  - Inadequate or Defective safety devices
  - Inadequate or Defective warning systems
  - Inadequate Assembly or Maintenance/Repair
  - Excessive wear and tear or out-dated Equipment
  - Inadequate material packaging
  - Improper handling of materials
  - Improper storage of materials or spare parts
  - Unauthorized substitution

- **Environmental Conditions (physical/environmental)**
  - Fire and explosion radiation exposure
  - Noise
  - Electrical systems
  - Extremes temperature/Heat, Cold
  - Fauna / Flora
  - Weather Conditions (other)
  - Inadequate workplace maintenance
  - Restricted access
  - Obscured access, entries and exits
  - Hazardous Substances (chemicals, radiation etc)
  - Inadequate ventilation
  - Visibility
  - Poor housekeeping
  - Lighting
  - Loose, Slippery or uneven surfaces
  - Inadequate workplace/workstation lay out / design
18. *Contributing Factor Prompts:* Tick all applicable.

![Contributing Factor Prompts Table]

19. *Actual Consequences:* Use the table to assess the severity of the actual incident and enter the corresponding Event Severity (e.g. low, medium, high, extreme).

**Corrective Actions**

![Corrective Actions Table]

20. *Contributing Factors:* List all Contributory Factors identified from the Root Cause Analysis above.
21. **Potential Risk**: Use the Risk Matrix to assess the likelihood and consequences of the incident happening again prior to any corrective actions and enter the corresponding risk rating. When assessing the potential risk always use the worst case scenario.

22. **Proposed Corrective Actions**: List Corrective Actions required to address each Contributory Factor.

23. **Responsible Person**: Assign a person responsible for implementation of each Corrective Action.

24. **By when**: Assign a date for completion of each Corrective Action.

25. **Residual Risk**: Use the Risk Matrix to assess the likelihood and consequences of the incident happening after corrective actions have been put in place and enter the corresponding risk rating.

**Investigation Team Sign-off**

<table>
<thead>
<tr>
<th>NAME:</th>
<th>SIGNATURE:</th>
<th>DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

26. Add names, signatures and dates for all investigation team members.

27. Submit the completed form to the Curtin University Health and Safety Team.
7.3 COMPLETING THE RMSS INVESTIGATION WORKBENCH

Event Investigation Quick Reference

The Event Investigation Quick Reference is designed to assist anyone new to using the RMSS software with the investigation of an event.

Event Investigation

1. To complete an investigation, click on the link provided in the email notification, and log in using your temporary *username* and *password*. You will be taken directly to the Event Investigation Workbench.

The Event Investigation Workbench is used to enter Witness Statements, Root causes, Investigation Files, Discussions and for the Investigation Closure.

Tip: To view the details of the event, click on the located in the top left corner of the screen.

2. Click on the **Witness Statements** button to add new statements.
   a. To *Add a New Witness*, tick the box for an *Internal Person* and select their name from the drop down list. Click on the + symbol button to add the *Witness*.

   For an External Person, un-tick the Internal Person box and enter the details of the witness. Click on the + symbol button to add the *Witness*.

   c. Enter the Statement. Use the Calendar icon to select the date the statement was made. Enter the *Statement* details in the free text box and click the ‘OK’ button.
Event Investigation

3. Click on **Root Cause Analysis**
   
a) Click on the **Add Item button** and then click on any place on the white section of the screen. Click the ‘Add Item’ button (a yellow pop-up blocker appears “This website is using a scripted window to ask your information…” Right click on the pop-up and click on **Temporarily Allow Scripted Windows.**)
   
   Now click on any place on the white section of the screen. A pop-up box will appear - enter the text in the space provided followed by the Ok button. The box will appear wherever you selected on the canvas with a heading of **Primary Effect.**
   
b) To add another entity, follow the above steps. From the second entity onwards all boxes will default to ‘Caused By’.

Note: You can edit how boxes are displayed by clicking on **Edit Item** and then clicking on the item you wish to edit. A pop-up box is displayed where you can edit/modify the item by editing the Description text or the Type by selecting from the dropdown list and then click on “OK”.

(Images of the software interface are shown with calls to action for the steps mentioned.)
c) Selecting a Root Cause: Click on Set item as root cause and then select the item you wish to set as root cause. The Setting Root Cause popup will appear. Select a root cause by clicking on the white arrow on the left of the page – the item will then appear highlighted. Click on the Select As Root Cause button at the bottom of the page.

**Tip:** If you would like to sort the Cause Category Name or Cause Name alphabetically, simply click on either the Cause Category Name or Cause Name (in the header row), and it will automatically appear in alphabetical order.

The item selected now displays as the Root Cause for the event.

To Edit, Delete or Remove Items, refer to the Investigation User Guide.
Event Investigation

4. Click on the **Investigation Files** button to upload links, files and file paths. Enter a description of the link, file or file path in the **Description** text box. Then upload the files or links and click **OK**.

As part of event investigation, an **Incident Investigation Form** must be completed, which can be found at: [http://healthandsafety.curtin.edu.au/hs_toolkit/publications.cfm](http://healthandsafety.curtin.edu.au/hs_toolkit/publications.cfm)

After completing the Incident Investigation Form, please upload the form in the in this section.

5. Click on the **Discussion** button to enter comments, discussions or conversations had regarding the event and with other investigators. Enter comments in the space provided at the bottom of the page, and to add this entry click on the **Add Entry** button.

6. Select the **Investigation Closure** button to vote to close the investigation.
   a. To vote to close, select the **Vote to close this investigation** button.
   b. When prompted ‘Are you sure?’ select **OK** to continue.

7. The check box next to your name will be ticked. The investigation will only close when all investigators have voted to close. Once the Health and Safety Department has approved and closed the investigation you will receive an e-mail notification stating that the investigation has been closed.

Exit the Investigation by simply closing the page in the top right hand corner(x).
8. REFERENCES
[1] Occupational Safety and Health Act, 1984

9. LIST OF SCHEDULES
- Incident Reporting and Investigation Form

10. RELEVANT DOCUMENT LINKS
- Incident Reporting and Investigation Procedure (incl. Incident Reporting and Investigation Flow Chart)

11. REVISION HISTORY

<table>
<thead>
<tr>
<th>Revision Ref. No.</th>
<th>Approved/Rescinded</th>
<th>Date</th>
<th>Authority</th>
<th>Resolution Number</th>
<th>Document Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rev 1.0</td>
<td>Approved</td>
<td>2/12/2011</td>
<td>Nelly Gaasdalen</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>