

Managing plant and equipment in Industrial Technology and Design

This information fact sheet explains the use of the following resources for managing plant/equipment:

- **Safe Operating Procedures (SOPs)**
- **Equipment Maintenance Records (EMRs)**
- **Plant & Equipment Risk Assessments (P&ERAs)** in Industrial Technology & Design (ITD) workspaces.

Also explained is the **ITD Activity CARA** template and its relationship to these plant and equipment resources.

Why do schools need SOPs, EMRs & P&ERAs for each piece of equipment?

The *Managing risks of plant in the workplace Code of Practice 2013* part of the 2011 framework of health and safety legislation, provides detailed information on how to address specific issues related to the use of equipment. The Code requires documents such as SOPs, EMRs and P&ERAs to be maintained and retained for the life of the equipment. These are important records often requested by auditors and investigation officers in the event of a serious injury or incident involving the use of equipment. More importantly, they demonstrate a robust system for the safe management of plant/equipment in your ITD workspaces.

ITD Plant and Equipment Resources are available at the following online link:

<https://education.qld.gov.au/initiatives-and-strategies/health-and-wellbeing/workplaces/safety/hazards>

Reviewing your SOPs, EMRs and P&ERAs.

SOPs, EMRs and P&ERAs should be reviewed at least annually, or more often when circumstances involving an item of equipment changes. After each review, the SOP should be re-signed and dated to indicate a review has occurred. P&ERA's have a '*Monitoring and Review*' process on the last page to record a yearly review process.

The ability to document how plan/equipment is maintained provides evidence of compliance with safety duties outlined in the *Work Health and Safety legislation: 2011*.

Implementing your SOPs, EMRs and P&ERAs.

1. **Access** a generic SOP, EMR or P&ERA (MS Word document) at the website link provided above.
2. **Review** SOP and EMR and edit if required. Changes may be necessary to reflect your local circumstances.
3. **Complete** a P&ERA document for items of equipment. There are benefits in using a number of staff in this process, i.e. consistency and more practical solutions.
4. **Record keeping** – completed documents can be kept electronically and printed as required. For example, a SOP can be printed, laminated, then signed and dated with permanent pen indicating that the information has been reviewed.
5. **Inform** all relevant staff of the processes and use of these documents and develop a system for the on-going instruction of staff. For example, include information in staff handbook for new and casual staff.
6. Carry-out checks as scheduled on EMR checklists. Regularly review SOPs and utilise the '*Monitoring and Review*' process on the last page of each P&ERA.

SOPs – **Safe Operating Procedures** (see samples to the right)

Generic SOPs are provided in a MS Word format. The wording should be modified to reflect any local circumstances at your school. Two styles of SOP are available – a poster style for attaching to the wall or large equipment and a tag style for attaching to the power cords of portable equipment.

EMRs – Equipment Maintenance Records

(see sample to the left)

Three (3) EMR forms are provided for each piece of equipment to assist departments to record all maintenance and regular equipment checks:

- Maintenance Record
- Random Equipment Checklist
- End of semester and Annual Checklists.

The Conducting an ITD Activity CARA document forms part of the suite of CARA templates provided by DoE for use in Education Queensland schools.

[Managing Risks in School Curriculum Activities](#)

Instructions for using the Conducting an ITD Activity CARA template:

Page 1.

- The 'Conducting an ITD Activity CARA' can be used for a practical project/unit of work that may be conducted over a few days through to a whole year.
- A project drawing can be attached to the CARA in OneSchool.
- Teachers of the same subject and year level can develop and share pages 1, 2 and 3 of 'Conducting an ITD Activity CARA' – this will provide consistency of approach for activities.
- The first three pages of a completed 'Conducting an ITD Activity CARA' can be re-used if nothing has changed (e.g. equipment, processes).

Page 2.

- The table on page 2 provides a different process from other CARA documents. It shows how all the relevant documents link together and reduces repetition of information and paperwork.
- **A** Column 1 and 2 – lists the elements of the project and other related ITD CARA documents.
- **B** Column 3 – the P&ERAs documents for each item of plant and equipment provides the assessed 'Risk Level'.
- **C** Column 4 – indicates the use of SOPs for the plant and equipment to be used for the activity.
- **D** 'Overall Risk Level' - is determined by the highest risk level listed in column 3 (see on diagram).
- Column 5 – Optional detail of an element of the activity, can be recorded.
Note: Where 'Overall Risk Level' is higher than desired, the teacher can review how the use of the equipment can be modify to possibly reduce the 'Overall Risk Level' of the activity

Page 3.

- Indicate the 'Overall Risk Level' on the table – refer to **D** page 2.
- Undertake the corresponding 'Action Required/Approval' in the right hand column.
Consider the questions (top of page), relating them to your activity and other information on this.

Page 4.

- This page reflects information related to an **individual** teacher (not a group).
- *Competency and ability* of a teacher can be demonstrated by maintaining documents such as:
 - relevant qualifications;
 - industry currency/experience;
 - related professional development;units of competency – these are often kept within a 'Staff Profile' for each ITD teacher

Pages 5 and 6.

- These pages relate to an **individual** teacher, the specific workspace and his/her group of students participating in the ITD Activity.
- **E** – a 'Managing a Practical ITD Workspace' CARA must be completed for each workshop/practical space to be used for ITD activities.
- Issues that arise from completing this CARA, such as student issues – including class size numbers, should be discussed with the relevant school administration and ITD HOD.

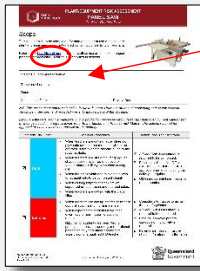
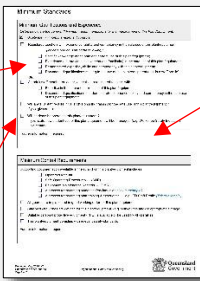
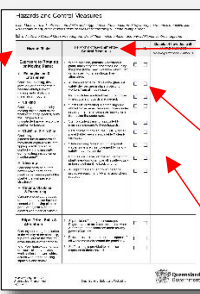
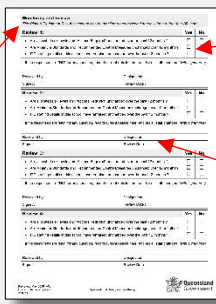
Page 7.

- The Submission and Approval process reflects the same requirements as other CARA documents – refer to the DoE procedure for details.
- All ITD Activities that are '**high and extreme**' must be added to the *School Curriculum Activity Register* or recorded in the OneSchool CARA module.

Using the Industrial Technology & Design (ITD) Activity CARA Template

Managing an ITD workspace	Conducting an ITD activity CARA	Plant & Equipment Resources
<div> </div> <p style="text-align: center;">Page 1</p> <div> </div> <p style="text-align: center;">Page 4</p> <div> </div> <p style="text-align: center;">Page 5</p>	<div> </div> <p style="text-align: center;">Page 1</p> <div> </div> <p style="text-align: center;">Page 2</p> <div> </div> <p style="text-align: center;">Page 5</p>	<div> </div> <p style="text-align: center;">SOPs</p> <div> </div> <p style="text-align: center;">P&ERAs</p> <div> </div> <p style="text-align: center;">EMRs</p>

Using the Plant & Equipment Risk Assessment documents – P&ERA

<p>Plant & Equipment Risk Assessment</p> <ul style="list-style-type: none"> DoE online link to the “ITD Guidelines” The assessed inherent risk levels reflect the common processes for this equipment, when used in the context of ITD curriculum activities. 	 <p>Page 1</p>	<ul style="list-style-type: none"> Provide a brief description of the item: Make and Model, etc. The mandatory actions for each level of risk are indicated (in accordance with the ‘Managing Risks in School Curriculum activities’ procedure).
<p>Minimum Standards</p> <ul style="list-style-type: none"> Indicate the minimum teacher qualifications required when introducing and utilising this item of plant and equipment. Indicate the experience, ability and competency of other adults using this item of plant and equipment. Note: These are minimum control requirements. 	 <p>Page 2</p>	<ul style="list-style-type: none"> Provide details here of any further teacher qualifications considered relevant to this item of plant. What supporting documentation or evidence has the school retained pertaining to the use of this item of plant and equipment?
<p>Hazards and Control Measures</p> <ul style="list-style-type: none"> The “Hazards and Risks” commonly associated with this item of plant and equipment item have been identified. Note: Additional ‘hazards’ and ‘control measures’ that exist in your situation, not already mentioned here, should be detailed in the table provided at the end of this section. 	 <p>Page 3</p>	<ul style="list-style-type: none"> The “Recommended Control Measures” relating to the hazards and risks associated with this plant item have also been identified. Indicate a “YES” or “NO” response to each of the recommended control measures. Where necessary, provide further details to explain your responses.
<p>Monitoring and Review</p> <ul style="list-style-type: none"> An annual review is required to be completed and signed. Note: This risk assessment can remain active for up to five (5) years if : <ul style="list-style-type: none"> there were no incidents or injuries reported from using the equipment. all perceived risk levels, hazards and control measures remain unchanged, etc. 	 <p>Last page</p>	<ul style="list-style-type: none"> Indicate “YES” or “NO” to the three review questions – and provide further details to explain any “NO” responses. Sign and date your annual assessment review.