

# LA TROBE UNIVERSITY

## PLANT SAFETY PROCEDURE

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### 1. **PURPOSE**

The purpose of these procedures is to provide practical guidance on how to meet the requirements of Occupational Health and Safety (Plant) Regulations 1995, the objective of which is to protect people at work against risks to health or safety from plant and systems associated with plant.

### 2. **DEFINITIONS**

#### **Plant**

Plant is machinery that processes material by way of a mechanical action which

- Cuts, drills, punches or grinds
- Presses forms, hammers, joins, or moulds material
- Combines, mixes, sort, packages, assembles, knits or weaves material.

Plant also includes lifts, cranes, tractors, earth moving equipment, pressure equipment, hoists, powered mobile plant, plant that lifts or moves people or materials, amusement structures, high powered lasers, turbines, explosive powered tools, scaffolds, temporary access equipment

#### **Hazard**

Hazard means the potential to cause injury or illness Examples of potential harm that plant or associated systems of work may cause to people at work include

- Injury from entanglement
- Crushing by falling or moving objects, or plant tipping over
- Crushing from people being thrown off or under plant
- Cutting or piercing due to sharp or flying objects
- Friction burns
- Injury from high pressure fluids
- Injury from electricity
- Injury from explosion
- Slips trips and falls

#### **Risk Assessment**

Risk assessment is the process of determining whether there is a risk associated with each of the hazards identified, that is, whether there is any likelihood of injury or illness

#### **Risk Control**

Is the process of implementing measures to reduce the risk associated with a hazard. When controlling risk, the hierarchy of control should be considered in order of priority.

#### **Hierarchy of Control**

The Hierarchy of Control is the established priority order for the types of measures to be used to control risks.

Elimination of the hazard

Substitution eg of the equipment or substance

Engineering controls, controls, which use engineering measures to change the physical characteristic of plant to eliminate or reduce risk. Eg guarding

Administrative controls, controls, which use systems of work to eliminate or reduce, risk eg supervision, training, and rotation

Personal protective equipment, (PPE)

### **Systems of work**

Describes a wide range of activities, which can contribute to safe work. These may include, Policies and procedures, systems of communication, organisation of work, skills and experience, work practices, emergency procedures.

### **Safe Operating Practice. (SOP)**

These are practices developed during the risk assessment to alert employees and operators of the hazards associated with the plant. Safe Operating Practices **do not** take the place of training or operation manuals.

### **Plant exemptions**

Plant which relies exclusively on manual power for its operation or which is designed to be primarily supported by hand **is not** covered by these regulations. General duties of care as required under the Occupational Health and Safety Act still applies.

## **3. RESPONSIBILITIES**

Deans, Heads of Schools and Colleges, Divisional Managers are responsible for ensuring that

- All plant owned or operated by the University is assessed in accordance with the Regulations and any health and safety risks identified are eliminated or controlled.
- All new purchases and plant acquisitions are assessed in accordance with in accordance with the Regulations by the supplier, manufactured and / or designer.
- All plant designed, modified and/or manufactured by La Trobe University personnel, including contractors is assessed in accordance with the Regulations.
- Notification and registration of certain plant designs and items of plant as required by the Regulations is arranged.
- Information, instruction and training is provided to all employees exposed to risks associated with plant.
- Records are maintained of all risk assessments

## **4. USE OF PLANT IN THE WORKPLACE**

### **4.1 Consultation**

Regulations place an obligation on the employer to consult with a health and safety representative of a designated work group. In particular, consultation with the relevant health and safety representative must occur where the hazard identification, risk assessment or control of risks processes affects the health and safety representative's work group.

Consultation should take place as early as possible when planning for the introduction of new or modified plant or systems of work associated with the use of plant, to allow for possible changes arising from the consultation to be incorporated.

Consultation mechanisms may include direct discussions, department meetings, health and safety committee meetings, hazard reports, or inspections.

Consultation between employers and persons involved in the supply of plant may contribute to the elimination or reduction of risks associated with plant. Employers should use the regular contact with their suppliers to discuss relevant health and safety issues associated with plant.

#### **4.2 Planning And Purchasing**

When planning and purchasing plant and equipment, risks associated with the use of the intended plant and processes must be considered. Elimination, substitution or engineering controls can be applied most effectively at the planning, design and purchasing stages. Suppliers have a duty to provide information on hazards associated with use of plant and equipment.

#### **4.3. Plant Hazard Identification**

Employers must ensure that all hazards associated with the installation, commissioning, erection and use of plant and systems of work associated with that plant are identified

- Before the plant is used for the first time
- Before any alterations to the plant or change in the way the plant is used or a system of work associated with the plant, including a change in the location of the plant
- Before the plant is used for any other purpose than for which it was designed
- If new or additional information about hazards relating to the plant or its associated systems of work becomes available to the employer
- For all plant in the workplace at the date of the Regulations. See documentation 6.1

When identification hazards of plant consideration to the following must be given.

- Injury from entanglement
- Crushing by falling or moving objects, or plant tipping over
- Crushing from people being thrown off or under plant
- Cutting or piercing due to sharp or flying objects
- Friction burns
- Injury from high-pressure fluids
- Injury from electricity
- Injury from explosion
- Slips trips and falls
- Suffocation
- Ergonomic requirements
- High temperatures
- Dust, vibration, noise, radiation

See Documentation Hazard Identification for plant.

#### **4.4 Risk Assessment**

Once hazards associated with plant have been identified, using the Plant Hazard Identification Checklist,(Refer to section 8, Documentation). All risks identified must be assessed to determine whether the risk is a high, medium or low priority. Refer to La Trobe University Risk Identification Assessment and Control Procedure.

#### 4.5 Risk Control

Under the Regulations the primary duty of the employer in relation to risk control is to eliminate where practicable any risk associated with plant and associated systems of work. Controls must be implemented as far as practicable for all risks identified. The Regulations clearly establish a priority order for the types of measures to be used to control risks. This control measure is referred to as the hierarchy of control

#### 4.6 Safe Operating Practice

Following risk identification assessment, a Safe Operating Practice is to be developed and displayed on or near plant to alert employees and operators to the hazards associated to the plant. See section 7, Documentation

#### 4.7 Installation, Erection and Commissioning of Plant

All plant installed or erected must

- provide sufficient clear working area around the plant
- ensure the layout of plant does not affect access and egress to and from the workplace.
- not be brought into operation unless the commissioning process is established
- include inspections, which will ensure that risks associated with these activities are monitored.

#### 4.8 Plant In Use

Where plant is currently in use, employers are required to carry out inspections to monitor risks to health and safety. Where safety features or warning signs are incorporated into the plant they must be used as intended maintained and tested.

Plant should be maintained cleaned and inspected in accordance to the recommendations of the designer and manufacturer.

Systems of work should be provided and maintained for employees, maintaining, inspecting or cleaning plant so as to eliminate risks to health and safety. Where practicable the systems of work should involve the stopping plant before maintenance, cleaning or repairs are commenced and the use of lockout or isolation devices and permit to work systems.

#### 4.9 Powered Plant

Powered mobile plant must be assessed to ensure that the likelihood of powered plant overturning or of a falling object coming into contact with the operator or the operator being ejected from the plant is eliminated.

Where pedestrians are to be in the vicinity of the mobile plant warning devices must be installed

No person must ride on the powered mobile plant unless the person is afforded a level of protection from exposure to risk, which is equivalent to that provided by the operator.

#### 4.10 Electrical Plant

Plant must not be used if conditions give rise to a risk due to the presence of electricity. When maintenance or cleaning or repair of electrically powered plant is being carried out the plant must be disconnected from the electricity supply.

Excavations using plant near underground power lines must ensure that there is no risk to the operators.

Plant operated near overhead electrical power lines must ensure that there is no risk to the operators

All electrical plant and equipment must be test tagged prior to use.

#### **4.11 Plant used to lift or suspend loads including people and materials.**

Plant must be specifically designed to lift or suspend the load.

Loads must not be suspended or pass over a person.

The load must be in control during the activity

As far as practicable no load should be lifted simultaneously by more than one piece of equipment.

Where Plant is to be used to lift persons

- The people are lifted or suspended in a work box which is securely attached to the plant.
- The people remain in the work box while they are being lifted or suspended
- If there is likelihood of a person falling from a height a safety harness must be provided and worn by the person
- There must be means of egress from the plant in the event of a failure in the normal operation of the plant.

#### **4.12 Industrial Lift Trucks**

Lift trucks must be equipped with the appropriate lifting attachments for the load and used in a manner that ensures the operator is not at risk. The operator of a fork lift truck must have a certificate to operate (LF)

#### **4.13 Damaged Plant**

Where the employer is assessing the function and condition of plant that is impaired or damaged and presents an immediate risk to health and safety, the plant should be withdrawn from use until the risk is controlled. Lockout procedures must be implemented.

#### **4.14 Alteration to Plant**

Where modification are made to the plant, or where the plant is to be altered, the employer should ensure that the design of the alteration has undergone a hazard identification and risk assessment. When the plant is altered, it should be inspected and tested having regard to the design specifications for the alteration. This should occur before the plant is returned to service.

#### **4.15 Dismantling Plant**

Where plant is to be dismantled, or decommissioning or otherwise sold or disposed of the employer should ensure that any relevant information provided by the designer and manufacturer is given to the person who is to dismantle or take control of the plant. Where plant is to be disposed of contents, materials presenting a risk to health or safety the employer.

#### 4.16 Registration of Plant

Certain items of plant cannot be used in the workplace unless registered with the Victorian WorkCover Authority or regulatory authority. These include:

- Boilers categorised as hazard A,B,C according to the criteria identified in AS3920-part 1
- Pressure vessels categorised as hazard level A,B or C in AS 3920 part 1 other than gas cylinders which AS2030, or LPG fuel vessels which AS3509 applies.
- Tower cranes
- Lifts
- Building maintenance units
- Amusement structures
- Concrete placing units(truck mounted with boom)
- Mobile cranes with safe working load greater than 10 tonnes.

#### 4.17 Licensing and Certificate of Competency

Anyone who operates or uses high-risk items of plant must have a certificate of competency. Employers must ensure that their employees have the proper certificate of competency for the plant they operate or use. Alternatively employees can work under the direct supervision of someone with the relevant certificate of competency or equivalent qualification, to gain the necessary training.

National certificates of competency cover

- Scaffolding, dogging and rigging.
- Crane and hoist operation.
- Forklift operation
- Pressure equipment operation.

#### 4.18 Plant not in use

When plant is not in use it must be left in a state which does not create a risk (so far as is practicable) for any person

### 5. INFORMATION, INSTRUCTION AND TRAINING

Employers are required under the Occupational Health and Safety Act to provide training, information and instruction to employees to ensure that the work can be performed in a manner that is safe and without risks to health. If a hazard related to the plant and its associated systems of work is identified and assessed to be a risk the employer must ensure that employees likely to be exposed to the risk and anyone supervising the employees are trained and provided with information and instruction. See Safe Operating practice 7.3

### 6. REFERENCES

OHS ACT 2004

OHS (Plant) Regulations 1995

OHS (Certification of Plant Users and Operators) Regulations 1994.

**7 CROSS REFERENCES**

La Trobe University Risk Identification Assessment and Control Procedure

**8. DOCUMENTATION**

Plant Compliance Review  
Hazard Identification for plant.  
Risk Assessment form.  
Safe Operating Practice (Sample)  
Safe Operating Practice (Blank)

The Executive Occupational Health and Safety Committee approved this procedure at its meeting on the 5th March 2001

*Editorial changes: July 2005*