Health and Safety

Woodworking Machinery

Minimum Standard

Version	**V1.0**
Author/s	Lee McGurty
Approver	ELT Operating Committee
Effective Date	05/04/2023
Review Date	05/04/2026

1 Aims and Principles

The aim of this Government of Jersey (GoJ) Minimum Standard is to provide guidance on the steps which should be taken to ensure the safe use of woodworking machinery.

Departments which use woodworking machinery should develop their own procedures detailing the specific arrangements to be implemented. The procedures must include the standards set out in this document or be of an equivalent or higher standard.

2 Legislation and Guidance

a) Applicable Legislation and UK Guidance

Health and Safety at Work (Jersey) Law, 1989

The Safe Use of Woodworking Machinery (ACoP 9)

b) Guidance

Health and Safety in the Woodworking Industry – Index (UK HSE)

Woodworking Risk Assessment Template (UK HSE)

Wood dust – what you need to know (UK HSE)

3 Definitions

Woodworking Machinery

Machinery, used to process, cut and shape timber or composite material, excluding hand held portable equipment.

A full list of definitions relating to machinery and woodworking machinery are available in The Safe Use of Woodworking Machinery (ACoP 9)

4 Who this Minimum Standard Applies to

Applies to:

- All Government of Jersey (GoJ) and States' employees
- Voluntary staff or those on honorary contracts where there is no implied contract of employment

5 Links to other GoJ Policies, Minimum Standards and Guidance

a) Policies

Government of Jersey - Health and Safety Policy

b) GoJ Minimum Standards

Risk Assessment
Manual Handling
COSHH
Slips and Trips
Noise
Occupational Health – Assessment and Surveillance

c) Other Internal Guidance

Further guidance may be available from other departments carrying out this type of work.

For assistance with preparing internal procedures, contact should be made with your departmental Health and Safety Manager/ Adviser/ "Professional".

6 Roles and Responsibilities

The department's procedures which cover the use of woodworking machinery, must clearly set out the roles and responsibilities of all those individuals involved with the work.

Reference should be made to the Corporate Health and Safety Policy for general responsibilities.

7 Overview

This section covers the use of woodworking machinery, excluding hand-held portable machines, although the standards set out in this document can be applied to their use.

This minimum standard provides a summary of the action which should be taken to ensure the safe use of woodworking machinery.

The Jersey Approved Code of Practice - The Safe Use of Woodworking Machinery (ACoP 9) sets out further details of the expected standards, common problems and common solutions. The ACoP should be consulted in conjunction with this Minimum Standard.

Following the standards set out in the ACoP will help to ensure compliance with the Health and Safety at Work (Jersey) Law, 1989.

8 Risk Assessment

Where woodworking machinery is used in the workplace, risk assessments should be carried out which consider the following factors:

- Working environment
- Use of the machine including:
  - Type of machine and specific safety hazards associated with its use e.g. cutting, entanglement, abrasion etc.
  - Guards required and their adjustment
  - Maintenance
  - Cleaning
  - Decommissioning, removal and disposal must also be considered where appropriate
- Hazards associated with different material types e.g. soft wood, hard wood, MDF etc.
- Noise
- Dust
- Training and competency of operators
- Requirement for LEV
- Requirement for personal protective equipment (PPE)

The risk assessment(s) should include general matters e.g. the working environment, noise etc. and specific hazards associated with the different types of machinery being used.

9 Woodworking Machinery Safety

Suitable Equipment

Woodworking machines must only be used to carry out operations for which they are designed.

Each woodworking machine must be stable when in use and should be provided with starting and stopping controls which are within easy reach of the operating position.

All tooling, including cutters and saw blades fitted to woodworking machines, must be suitable for the task to be carried out and must be maintained in good condition.

Maintenance

Woodworking machines must be kept well maintained in accordance with the manufacturer's guidance and any maintenance should be carried out by a competent person.

Pre-use Checks

Prior to using any woodworking machine, pre-use checks should be carried out by the user to confirm that it is safe and fit for use. The items required to be checked will depend on the type of woodworking machine and in some cases, may need to be formally recorded. This process can be managed through use of a simple checklist.

Checks could include:

- General condition of the machine including cleanliness
- Presence and condition of guards
- Functioning of safety devices e.g. interlocks, emergency stops etc.
- Condition of the LEV (local exhaust ventilation)

Braking and Isolation

Each woodworking machine must be provided with a means of isolation from the electrical supply or other source of power. The isolator should be clearly marked and conveniently located.

The following machines should be fitted with a braking device:

- Circular saw benches;
- Powered and hand-fed cross-cut saws;
- Single-end and double-end tenoning machines;
- Combined machines incorporating a circular saw and/or tenoning attachment;
- Narrow band saws;
- Re-saws;
- Vertical spindle moulding machines;
- Hand-fed routing machines;
- Thicknessing machines;
- Surface planing machines;
- Planing/ thicknessing machines

Braking devices must be fitted to any other woodworking machinery where risk assessment shows that it is necessary in order to control the risks during rundown of all machines.

Machines which have a run-down time of less than 10 seconds or those where braking could be detrimental to the integrity of the machine do not require a brake to be fitted.

Guarding

Access to all dangerous areas of power transmission machinery of a woodworking machine must be prevented by the fitting of suitable guards.

All dangerous parts of a woodworking machine must be effectively guarded to the extent that is practicable.

All guards must be suitable for the purpose for which they are intended, be of good construction, adequate strength and be maintained in efficient working order.

Guards should always be fitted during the use of the machine and be well maintained to ensure that they continue to operate properly.

If it is necessary to remove guards in order to carry out the task, this is an indication that it is not the correct tool for the job and is strictly not permitted.

Jigs and holders etc.

Where practicable, to further reduce the risks, suitable devices such as power feed units, jigs, holders and push sticks or push blocks should be used in conjunction with the guarding of the machine.

Identification and Reporting of Faults

Employees should be trained to immediately report any fault or dangerous situation arising from the use of woodworking machinery, to ensure that any fault can be rectified. A formal system should be in place for reporting defective woodworking machinery, which should include a means of recording the action taken in response to the report.

Where defective woodworking machinery has been identified, it should be taken out of use until safety checks have been carried out by a competent person, and assurance has been provided to confirm that it is safe and can continue to be used safely.

Defective woodworking machinery should also be clearly identified as defective, to ensure it is not used inadvertently e.g. signage and where practicable, should be isolated from the power supply.

Further guidance on safety requirements for specific machines is available in The Safe Use of Woodworking Machinery (ACoP 9).

10 Training and Supervision of Operators

All persons who use or supervise the use of woodworking machines must receive adequate training to ensure health and safety. This training should include the methods

which may be adopted when using the machine, any risks associated with its use and the precautions to be taken.

Any persons supervising the use of woodworking machines must be informed of their specific responsibilities and understand how they are expected to carry them out.

Selection of Supervisors and Trainers

For a training scheme to be successful, supervisors and trainers must have the following:

- Competency in the machines on which training is to be provided
- Good communication skills
- Technical understanding of the woodworking machinery
- Knowledge of the legal requirements

It is important that supervisors are made aware of their responsibility to supervise for safety, not just ensure that the work is carried out in terms of quality and productivity.

Training of Operators

Training of operators can take a number of forms:

- External
- In-house
- A combination of both
- Refresher

Whatever the type of training, a training record for each operator should be maintained and be periodically reviewed.

Where external training is provided, checks should be made that the course will cover the type of equipment which the operator will be required to use in the workplace and will include all of the operations that the individual will be expected to carry out on that particular machine.

In-house training should consist of three elements:

General	The basic skills and knowledge common to all woodworking machines. This will include aspects of ‘good housekeeping’ and awareness of danger appropriate to someone ‘taking-off’, plus knowledge of the relevant legislation
Machine Specific	The basic skill in the operation of the machine, including the position and function of emergency stops; basic safety rules related to the operation of a machine or class of machines; the use and adjustment of guards and safety devices

Familiarisation	On-the-job operation under close supervision

Level of Supervision During Training of Operators

There are no prescribed levels of supervision required during training as it will depend on the existing knowledge, skill level and progress made by the operator.

It may be continuous and on a one-to-one basis initially but as the trainee becomes more competent, this can be relaxed. However, when new operations or elements are introduced, even for experienced operators, the supervision requirements are likely to increase again.

Further information on training and supervision is available in The Safe Use of Woodworking Machinery (ACoP 9).

Authorisation of Operators through Assessment

No person should be allowed to work at a woodworking machine unless they have demonstrated competence. This includes new and existing employees and is a requirement irrespective of the experience of the operator.

The assessment should be carried out by a supervisor or trainer, who must be familiar with the machining process, the risks and the safe working practices.

The assessment should be carried out in two stages:

- Stage 1 – identify the training needs of the operator
- Stage 2 – measure the success of the training given

The assessment should test competence in the following areas:

- Machine selection: the ability to say “this is the wrong machine for this operation. It could be done more safely on…..”
- Purpose and adjustment of guards and safeguards
- Knowledge of those operations prohibited on that machine without additional safeguards being provided
- Selection and use of safety devices such as push-sticks, jigs, holders etc.
- Practical understanding of guarding arrangements; for example
    - The function and setting of the riving knife on a circular bench saw
    - The adjustment of the top guard on a circular saw or the bridge guard on a surface planing machine
    - The appropriate use of guards, stops and jigs on a spindle moulder
- Safe working practices including feeding, setting, cleaning, taking off and proper work support
- The nature of material and the hazards produced, including kickback, snatching and health hazards from types of dust.

A written record of all assessments should be kept to demonstrate that this has been undertaken.

Where operators are deemed to be competent by a supervisor or trainer, they should be authorised in writing by a competent person e.g. member of senior management. There should be clear evidence of who is authorised to operate which machines and it should be stressed to operators that they can only use woodworking machinery which they have been authorised to use.

Templates for the assessment and authorisation of operators are available in the appendix to The Safe Use of Woodworking Machinery (ACoP 9).

Young Persons

Persons under the age of 18 should not be permitted to use woodworking machinery without supervision, unless they have been assessed as having the necessary maturity and competence and have completed the appropriate training.

Providing training is only one part of the assessment required to ensure that young persons are competent to use woodworking equipment safely. Their level of maturity should also be assessed and supervision must be provided until the supervisor is satisfied that they will use the machinery safely.

11 Working Environment

When installing and using woodworking machinery, consideration must be given to the surrounding environment to ensure that it does not introduce new hazards or increase the risks associated with the use of this type of machinery.

Matters to consider include:

Space

Checks should be made to ensure that there is adequate space around the woodworking machinery for both the operator and the wood that is being machined. There must also be sufficient space for the operator to work safely and without distraction from passing persons.

Floor

The floor around any woodworking machine must be level and be kept clear and free from obstructions. Any cables or ducting connected to the machine should be mounted on the walls or ceiling so as not to cause a trip hazard.

Lighting

Adequate lighting should be provided throughout the workshop and at each item of woodworking machinery either through natural or artificial means. The operator must

have a clear view of the work piece, the cutters and all controls and the lighting should be positioned to avoid any glare from surfaces.

Heating

Adequate heating must be provided in any area where woodworking machinery is used and where it is impracticable to heat the entire workplace, radiant heaters can be provided near to the working area.

12 Health Hazards

The primary health hazards associated with the use of woodworking machinery are wood dust and noise and steps must be taken to control these to prevent harm.

Wood dust

Both hardwood and softwood dusts have a Workplace Exposure Limit (WEL) which should not be exceeded. They are defined as a hazardous substance and reference should be made to the GoJ Minimum Standard – COSHH for further information on the steps which should be taken to manage these risks.

The first step which should be considered is choosing a method of working with the wood which will minimise the amount of wood dust created during the machining process.

It is recognised, however, that any machining of wood will give rise to wood dust which should be kept away from the operator, preferably through means of extraction or capture. An active system, such as a local exhaust ventilation system (LEV) should be installed where it is reasonably practicable to do so.

The system should be designed to take into account:

- the number and type of machines to be connected to it, the ones that are used together and the layout of the workshop

- the machine manufacturer's information or an experienced body's information on air flow and extraction cross-sectional areas or volume flow rates (VFR) required for each extraction connection for each machine.

Extraction systems should be designed and installed by competent persons.

Any LEV system should be maintained and be thoroughly examined and tested at least once in every 12-month period to ensure that it remains effective. The records should be kept for at least 5 years.

Any wood dust which accumulates in areas such as on the woodworking machinery or floor, should be removed using an industrial vacuum cleaner fitted with HEPA filters, or alternatively, an attachment fitted to the extraction system. Airlines and brushes should not be used as these will cause the dust to become airborne again where it can be

inhaled.

Further information is available at Wood dust – what you need to know (UK HSE).

Noise

Exposure to noise from woodworking machinery should be prevented or reduced by:

- Purchasing 'low noise' blades
- Using limited cutter projection tooling
- Ensuring regular maintenance
- Providing enclosures
- Confining noisy woodworking machinery to specific areas

Further information is available at Industry Good Practice – Woodworking (UK HSE)

Whilst this will help to reduce noise levels, it is likely that hearing protection will still be required.

A noise assessment should be carried out by a competent person and further information is available the GoJ Minimum Standard – Noise.

13 Provision of Information to Employees

All persons who use woodworking machinery should be provided with sufficient information on the risks associated with the work and the control measures to be used to manage those risks.

Typical information includes:

- Risks rising from different wood types e.g. soft wood, hard wood, MDF etc.
- Risks associated with noise exposure
- Risks associated with dust exposure
- Use of the LEV system
- Use of hearing protection

The manufacturer's information should also be readily available to them.

14 Medical Standards and Health Surveillance

Fitness Assessment

Any persons which the Department intends to authorise should have their fitness to operate the particular woodworking machinery assessed and authorised as fit to do so at suitable intervals.

The assessment will include confirmation of good health, vision, hearing and any specific medical disorders which might affect the individual's ability to operate the machinery safely.

A re-assessment should take place at appropriate intervals which should not be more than every 5 years.

An earlier re-assessment may be required if an operator's fitness to work is affected by circumstances such as injury, illness or new medication etc.

It may also be required if the supervisor or management have any concerns regarding the operator's ability to continue to work safely with woodworking machinery.

Further information on matters which can affect the fitness of an employee to operate is available in The Safe Use of Woodworking Machinery (ACoP 9).

Health Surveillance

Any persons exposed to wood dust and noise from working with woodworking machines should be subject to health surveillance to identify any potential effects at an early stage.

Further information on health surveillance is available in the GoJ Minimum Standard – Occupational Health Assessment and Surveillance.