

GUIDELINES

FOR THE PROVISION OF SAFETY, HEALTH AND ACCOMMODATION IN

Agriculture

TO MEET THE REQUIREMENTS OF THE HEALTH AND SAFETY IN EMPLOYMENT ACT 1992 AND REGULATIONS 1995



OCCUPATIONAL SAFETY
& HEALTH SERVICE

DEPARTMENT OF
LABOUR
TE TARI MAHI



*Hon. Doug Kidd
Minister of Labour*

Foreword

The Health and Safety in Employment Act 1992 reformed the law and provided, for the first time, comprehensive coverage and a consistency of approach to the management of safety and health in all New Zealand workplaces.

Since its introduction on 1 April 1993 the new law has proven to be innovative and effective. It has not only been successfully enforced through the courts, but — more importantly — has improved attitudes throughout all industries.

Regulations have now been passed which contain standards for matters not specifically addressed in the Act.

The importance of enforcing the law can't be ignored. However, there is also a real need for industry-specific information for employers and employees. These guidelines are an important part of this process, and they provide further information on means of compliance with the Act and the regulations.

My intention in publishing these guidelines is that they will be another step towards the ultimate goal of the legislation — which is to constructively change people's attitudes and responses to workplace health and safety.

A handwritten signature in red ink, appearing to read 'Doug Kidd', with a stylized flourish at the end.

Hon Doug Kidd
Minister of Labour

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About these guidelines

These guidelines apply to agricultural places of work.

They are part of a series aimed at different industries. Other guidelines currently available are concerned with:

- Commercial and industrial premises
- Construction
- Forestry
- Machinery guarding and safety — general principles
- Woodworking machinery

In addition, separate regulations cover mining, petroleum, hazardous equipment (boilers, pressure vessels, cranes, and passenger ropeways) and tractor safety frames.

In the case of places of work not covered by the separate guidelines on commercial and industrial premises, construction, forestry or machinery (or by mining regulations), these general guidelines will provide useful information to enable employers in the agriculture industry to comply with their duties under the Act and regulations.

These guidelines are a guide to the regulations and to good practice in particular situations or hazards. Guidance on the Act is available from other OSH publications, such as *A Guide to the Health and Safety in Employment Act 1992*, or *A Guide to Managing Health and Safety to Meet the Requirements of the Health and Safety in Employment Act 1992*.

Content of the guidelines

The guidelines contain three categories of information on safety and health:

- Relevant sections of the Health and Safety in Employment Act 1992 and the Health and Safety in Employment Regulations 1995.
- The guidelines themselves — based in part on standards contained in former legislation and on generally accepted good practice; and
- References to further information in support of the guidelines.

Application of reference information

Approved codes of practice

If an approved code of practice has been issued for any type of work (under section 20 of the Act) then such work should be carried out in accordance with that code of practice.

LEGISLATIVE PROVISIONS THAT RELATE SPECIFICALLY TO THE SUBJECT OF THE GUIDELINE.

The **most relevant** sections of the Act and regulations are listed separately.

Often the section of the Act referred to contains general provisions, but has been quoted because it is most likely that any prosecution would be taken under it.

Regulations are reproduced as appropriate, and their observance is mandatory where they apply.

THE GUIDELINES THEMSELVES.

These guidelines contain **recommendations** for employers and others on means of compliance with the Health and Safety in Employment Act 1992 and regulations.

They describe good practices for specific work situations, and as such support the Act and regulations. Where appropriate they refer the reader on to Codes of Practice approved by the Minister of Labour under the Act, Standards, regulations made under other Acts of Parliament, and other recognised statements of good practice relevant to the particular area.

They are, however, **guidelines**, and — while every effort has been made towards completeness and accuracy at the time of publication — they should at any time be read in conjunction with the legislation and other documents referred to.

REFERENCES TO FURTHER INFORMATION IN SUPPORT OF THE GUIDELINES.

These include New Zealand and other Standards, Occupational Safety and Health Service publications, other publications, and other sources of information which **support the guidelines**.

Legislation — Duties of employers

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General duties of employers

6. Employers to ensure safety of employees— Every employer shall take all practicable steps to ensure the safety of employees while at work, and in particular shall take all practicable steps to—
(a) provide and maintain for employees a safe working environment; and
(b) provide and maintain for employees while they are at work facilities for their safety and health; and
(c) ensure that plant used by any employee at work is so arranged, designed, made, and maintained that it is safe for the employee to use; and
(d) ensure that while at work employees are not exposed to hazards arising out of the arrangement, design, manufacture, operation, provision, storage, transport, working, or use of anything—
(i) in their place of work; or
(ii) near their place of work; and under the employers' control; and

in circumstances or situations or circumstances that they arise while employees are at work.

Duties of Employers in Relation to Hazard Management

7. Identification of hazards— (1) Every employer shall ensure that there are in place effective methods for—
(a) systematically identifying existing hazards to employees at work; and
(b) systematically identifying (if possible before, and otherwise as, they arise) new hazards to employees at work; and
(c) regularly assessing each hazard identified, and determining whether or not it is a significant hazard;
(2) Where there occurs any accident or harm in respect of which an employer is required by section 25(1) of the Act to record particulars, the employer shall take all practicable steps to ensure that the occurrence is so investigated as to determine whether it was caused by or arose from a significant hazard.

8. Significant hazards to employees to be eliminated if practicable— Where there is a significant hazard to employees at work, the employer shall take all practicable steps to eliminate it.

9. Significant hazards to employees to be isolated where elimination impracticable— Where—
(a) there is a significant hazard to employees at work;

(b) either—
(i) there are no practicable steps that may be taken to eliminate it; or
(ii) all practicable steps to eliminate it have been taken, but it has not been eliminated;

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1.1 Duties of employers

The general duties of employers under the Health and Safety in Employment Act 1992 are to take all practicable steps to:

- Provide and maintain a safe working environment;
- Include employees in the development of health and safety procedures;
- Identify hazards and apply practical controls to significant hazards (see also section 1.1.4. Hazard identification and control);
- Provide and maintain facilities for the safety and health of employees;
- Ensure that any machinery or plant that employees use is safe;
- Ensure that any processes that employees are involved in will not adversely affect their health or safety;
- Provide employees with information on workplace hazards, and ensure that employees are trained and supervised;
- Record and investigate workplace accidents and illness, and report any that constitute serious harm; and
- Develop procedures to deal with emergencies which may arise at work.

FURTHER INFORMATION

OSH publications

A Guide to Managing Health and Safety to Meet the Requirements of the Health and Safety in Employment Act 1992

A Guide to the Health and Safety in Employment Act 1992

How to Identify and Control Hazards

The Farmers' and Growers' Guide to the Health and Safety in Employment Act 1992

1.2 Duties of persons in control of the place of work

The person in control of the place of work should take all practical steps to ensure that people in the place of work, and people in the vicinity are not harmed by any hazard in or arising in the place of work. It is important to note that this responsibility applies to all people in control of a place of work, not just to employers.

FURTHER INFORMATION

OSH publications

A Guide to Managing Health and Safety to Meet the Requirements of the Health and Safety in Employment Act 1992

A Guide to the Health and Safety in Employment Act 1992

How to Identify and Control Hazards

The Farmers' and Growers' Guide to the Health and Safety in Employment Act 1992

GUIDELINES FOR THE PROVISION OF SAFETY, HEALTH AND ACCOMMODATION IN AGRICULTURE — OCTOBER 1996

Standards

These guidelines refer to New Zealand and other standards that provide technical guidance and specifications for employers and others.

In addition, standards may be specified in particular regulations as having application to any place or type of work, equipment, plant, activity, or any other thing, covered by the regulations. In these cases, employers shall comply with the requirements of that standard unless otherwise advised by an inspector.

The Building Act 1991

Any building which is constructed or altered is required to comply with the requirements of the Building Act 1991 to the extent that those requirements apply to the construction of the building.

Farm Health and Safety package

This package was published by Federated Farmers of New Zealand in 1995. It contains specific information on the Act and its effect on farmers, and provides a comprehensive set of checklists and practical information to make farms safer and healthier.

It was developed in consultation with OSH, and can be purchased from any office of Federated Farmers.

Definitions

All words have their common or dictionary meaning unless otherwise defined in any associated document such as legislation or codes of practice.

Agricultural work includes:

- (a) Horticultural and pastoral work; and
- (b) Silviculture work on farms; and
- (c) The work of cooking (for hire or reward) for other persons doing agricultural work.

All practicable steps is defined in the Health and Safety in Employment Act 1992. In simplified form, it means doing what is reasonably able to be done in the circumstances, taking into account:

- The severity of any injury or harm to health which may occur;
- The degree of risk or probability of that injury or harm occurring;
- How much is known about the hazard and the ways of eliminating, reducing or controlling it; and
- The availability, effectiveness and cost of the possible safeguards.

Construction work means any work in connection with the alteration, carrying out, cleaning, construction, demolition, dismantling, erection, installation, maintenance, painting, removal, renewal, or repair of any structure or structures of any one or more of the following kinds:

- (a) Any building, chimney, edifice, erection, fence, structure, or wall, whether constructed wholly above or below, or partly above and partly below, ground level;
- (b) Any aerodrome, cableway, canal, harbour works, motorway, railway, road, tramway or road, other than any road work that is forestry work;
- (c) Any drainage, flood control, irrigation, or river control work;
- (d) Any electricity, gas, telecommunication or water distribution system or network;
- (e) Any aqueduct, bridge, culvert, dam, earthwork, pipeline, reclamation, reservoir, or viaduct, but excluding any adit, drive tunnel, or underground working intended to be greater than 15 metres long, or any shaft intended to be greater than 4.5 metres deep;
- (f) Any scaffolding;

and includes any work in connection with any excavation, site preparation, or preparatory work, carried out for the purpose of any construction work; and also includes the use of any plant, tools, gear, or materials for the purpose of any construction work; and also includes any such work carried out under water, including work on buoys, rafts, ships, wrecks, and obstructions to navigation; and also includes any inspection or other work carried out for the purpose of ascertaining whether construction work should be carried out.

Forestry work means any work in connection with any tree felling or logging operation, conducted for commercial purposes, in which any person is employed or engaged in felling

trees or logging and, whether or not conducted for commercial purposes, includes:

- (a) The felling of trees by any means for the purpose of land clearance;
- (b) All silviculture operations including thinning and pruning operations;
- (c) The transportation, including transportation by the use of helicopters, log rafting, and barging of logs, flitches, sawn timber, or waste products in connection with any forestry operation or any stockpiling or processing yard, other than on a public road, street or railway system;
- (d) The construction and maintenance of private roads, service and access tracks, bridges, skids of log landings, tramways, railways, and the shifting of any plant, for the purpose of any of the foregoing operations;
- (e) All arboriculture operations, including the management and care of amenity trees in the general community, the maintenance of trees in the vicinity of overhead power lines, and the maintenance of shelter belts.

A person in control of a place of work is any person who is the lessee, sublessee, occupier, or person in possession of a place of work, or in possession of any part of a place of work. A person in control of a place of work is also a person who is the owner, lessee, or bailee, of any plant or machinery in a place of work.

Principal means a person who or that engages any person (other than as an employee) to do any work for gain or reward.

Securely fenced means so guarded that any dangerous part of a machine is not dangerous to people operating machinery, and not dangerous to people near such a machine.

Safe by position means so positioned that any person cannot reach or gain access to the dangerous parts.

ACT

General Duties of Employers

6. Employers to ensure safety of employees—

Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to—

- (a) Provide and maintain for employees a safe working environment; and
- (b) Provide and maintain for employees while they are at work facilities for their safety and health; and
- (c) Ensure that plant used by any employee at work is so arranged, designed, made, and maintained that it is safe for the employee to use; and
- (d) Ensure that while at work employees are not exposed to hazards arising out of the arrangement, disposal, manipulation, organisation, processing, storage, transport, working, or use of things—
 - (i) In their place of work; or
 - (ii) Near their place of work and under the employer's control; and
- (e) Develop procedures for dealing with emergencies that may arise while employees are at work.

Duties of Employers in Relation to Hazard Management

7. Identification of hazards— (1) Every employer shall

ensure that there are in place effective methods for—

- (a) Systematically identifying existing hazards to employees at work; and
 - (b) Systematically identifying (if possible before, and otherwise as, they arise) new hazards to employees at work; and
 - (c) Regularly assessing each hazard identified, and determining whether or not it is a significant hazard.
- (2) Where there occurs any accident or harm in respect of which an employer is required by section 25 (1) of this Act to record particulars, the employer shall take all practicable steps to ensure that the occurrence is so investigated as to determine whether it was caused by or arose from a significant hazard.

8. Significant hazards to employees to be eliminated if practicable—Where there is a significant hazard to employees at work, the employer shall take all practicable steps to eliminate it.

9. Significant hazards to employees to be isolated where elimination impracticable—Where —

- (a) There is a significant hazard to employees at work; and
 - (b) Either—
 - (i) There are no practicable steps that may be taken to eliminate it; or
 - (ii) All practicable steps to eliminate it have been taken, but it has not been eliminated,—
- the employer shall take all practicable steps to

1.1 Duties of employers

The general duties of employers under the Health and Safety in Employment Act 1992 are to take all practicable steps to:

- Provide and maintain a safe working environment;
- Include employees in the development of health and safety procedures;
- Identify hazards and apply practical controls to significant hazards (see also section 1.14, Hazard identification and control);
- Provide and maintain facilities for the safety and health of employees;
- Ensure that any machinery or plant that employees use is safe;
- Ensure that any processes that employees are involved in will not adversely affect their health or safety;
- Provide employees with information on workplace hazards, and ensure that employees are trained and supervised;
- Record and investigate workplace accidents and illness, and report any that constitute serious harm; and
- Develop procedures to deal with emergencies which may arise at work.

FURTHER INFORMATION

OSH publications

A Guide to Managing Health and Safety to Meet the Requirements of the Health and Safety in Employment Act 1992

A Guide to the Health and Safety in Employment Act 1992

How to Identify and Control Hazards

The Farmers' and Growers' Guide to the Health and Safety in Employment Act 1992

1.2 Duties of persons in control of the place of work

The person in control of the place of work should take all practical steps to ensure that people in the place of work, and people in the vicinity are not harmed by any hazard in or arising in the place of work. It is important to note that this responsibility applies to all people in control of a place of work, not just to employers.

FURTHER INFORMATION

OSH publications

A Guide to Managing Health and Safety to Meet the Requirements of the Health and Safety in Employment Act 1992

A Guide to the Health and Safety in Employment Act 1992

How to Identify and Control Hazards

The Farmers' and Growers' Guide to the Health and Safety in Employment Act 1992

isolate it from the employees.

10. Significant hazards to employees to be minimised, and employees to be protected, where elimination and isolation impracticable—(1)

Where—

- (a) There is a significant hazard to employees at work; and
- (b) Either—
 - (i) There are no practicable steps that may be taken to eliminate it; or
 - (ii) All practicable steps to eliminate it have been taken, but it has not been eliminated; and
- (c) Either—
 - (i) There are no practicable steps that may be taken to isolate it from the employees; or
 - (ii) All practicable steps to isolate it from the employees have been taken, but it has not been isolated,— the employer shall take the steps set out in subsection (2) of this section.
- (2) The steps are—
 - (a) To take all practicable steps to minimise the likelihood that the hazard will be a cause or source of harm to the employees; and
 - (b) To ensure that there is provided for, accessible to, and used by the employees suitable clothing and equipment to protect them from any harm that may be caused by or may arise out of the hazard; and
 - (c) To monitor the employees' exposure to the hazard; and
 - (d) To take all practicable steps to obtain the employees' consent to the monitoring of their health in relation to the hazard; and
 - (e) With their informed consent, to monitor the employees' health in relation to exposure to the hazard.

Duties of Employers in Relation to Information

11. Employees to be given results of monitoring—

- (1) This section applies to the results of any monitoring of any employee or place of work if it was undertaken in compliance with this Act; and—
 - (a) If the monitoring was undertaken by or on behalf of an employer; or
 - (b) If—
 - (i) The monitoring was undertaken by or on behalf of a department (within the meaning of the State Sector Act 1988); and
 - (ii) The results have been given to an employer.
- (2) Subject to subsection (3) of this section, every employer shall ensure that—
 - (a) Every employee is given all results to which this section applies of monitoring of the employee (whether as an individual or as one of a number of employees) in relation to health or safety; and
 - (b) All employees who ask for them are given all results to which this section applies of general monitoring—
 - (i) Conditions in the employee's place of work; or
 - (ii) The health or safety of employees there.
- (3) Every employer shall ensure that—
 - (a) There are omitted from all results to which this section applies given to any individual employee all information that identifies, or discloses anything about,

any other individual employee; and

- (b) There are omitted from all results to which this section applies given to any group of employees all information that identifies, or discloses anything about, any employee.

12. Information for employees generally— Every employer shall ensure that every employee who does work of any kind, or uses plant of any kind, or deals with a substance of any kind, in a place of work has been given, in such a form and manner that the employee is reasonably likely to understand it, information about—

- (a) What to do if an emergency arises while the employee is doing work of that kind, using plant of that kind, or dealing with substances of that kind, in that place; and
- (b) All identified hazards to which the employee is or may be exposed while doing work of that kind, using plant of that kind, or dealing with substances of that kind, in that place, and the steps to be taken to minimise the likelihood that the hazards will be a cause or source of harm to the employee; and
- (c) All identified hazards the employee will or may create while doing work of that kind, using plant of that kind, or dealing with substances of that kind, in that place, and the steps to be taken to minimise the likelihood that the hazards will be a cause or source of harm to other people; and
- (d) Where all necessary safety clothing, devices, equipment, and materials are kept.

Duties of Employers in Relation to Training and Supervision

13. Training and supervision—Every employer shall take all practicable steps to ensure that every employee who does work of any kind, or uses plant of any kind, or deals with a substance of any kind, in a place of work—

- (a) Either—
 - (i) Has; or
 - (ii) Is so supervised, by a person who has such knowledge and experience of similar places, and work, plant, or substances of that kind, as to ensure that the employee's doing the work, using the plant, or dealing with the substance, is not likely to cause harm to the employee or other people; and
- (b) Is adequately trained in the safe use of all plant, objects, substances, and protective clothing and equipment that the employee is or may be required to use or handle.

14. Employers to involve employees in development of health and safety procedures—

Every employer shall ensure that all employees have the opportunity to be fully involved in the development of procedures developed for the purpose of—

- (a) Complying with sections 7 to 10 of this Act; or
- (b) Dealing with or reacting to emergencies or imminent dangers.

Legislation — Duties of persons in control of the place of work

ACT.

16. Duties of persons with control of places of work—

To the extent that a person is—

- (a) The owner, lessee, sublessee, occupier, or person in possession of a place of work or any part of a place of work (not being a home occupied by the person); or
- (b) The owner, lessee, sublessee, or bailee, of any plant in a place of work (not being a home occupied by the person),—the person shall take all practicable steps to ensure that people in the place of work, and people in the vicinity of the place of work, are not harmed by any hazard that is or arises in the place of work.

Legislation — Duties of employees

ACT

Other Duties

...

19. **Duties of employees**—Every employee shall take all practicable steps to ensure—

- (a) The employee's safety while at work; and
- (b) That no action or inaction of the employee while at work causes harm to any other person.

Legislation — Duties of self employed

ACT

Other Duties

...

17. **Duties of self-employed people**—Every self-employed person shall take all practicable steps to ensure that no action or inaction of the self-employed person while at work harms the self-employed person or any other person.

Legislation — Duties of principals

ACT

Other Duties

...

18. **Duties of principals**—(1) Every principal shall take all practicable steps to ensure that—

- (a) No employee of a contractor or subcontractor; and
 - (b) If an individual, no contractor or subcontractor, is harmed while doing any work (other than residential work) that the contractor was engaged to do
- (2) Subsection (1) of this section shall be read subject to section 2 (2) of this Act.

1.3 Duties of employees

Employees should take all practical steps to ensure that they do not do anything to harm themselves while at work.

Employees should also take all practicable steps to ensure that while at work no action or inaction on their part causes harm to any other person.

FURTHER INFORMATION

OSH publications

A Guide to Managing Health and Safety to Meet the Requirements of the Health and Safety in Employment Act 1992

A Guide to the Health and Safety in Employment Act 1992

How to Identify and Control Hazards

The Farmers' and Growers' Guide to the Health and Safety in Employment Act 1992

1.4 Duties of self employed

Self-employed people should take all practical steps to ensure that while at work no action or inaction on their part harms themselves or any other person.

1.5 Duties of principals

Principals should take all practical steps to ensure that any contractor, subcontractor or employees of the contractor or subcontractor, are not harmed while doing the work they were engaged to do for the principal. This duty does not extend to work being carried out in a person's home.

Practical ways in which this duty can be carried out are by:

- Ensuring that all contractors, subcontractors and their employees are given advice about the known hazards in the place of work.
- Where practical, monitoring (not supervising) the work carried out by the contractor, subcontractor, or their employees and, where it becomes apparent that their health and safety (or other people's health and safety) is at risk, the principal should intervene to ensure that the situation is corrected.
- Where work is carried out by contractors, subcontractors, and their employees, specifying the health and safety standards that are expected. It may be appropriate in some circumstances to specify these standards in an agreement or contract.
- Engaging only contractors and subcontractors who have a good health and safety history.
- Asking contractors and subcontractors to give advice on how they intend to manage health and safety while engaged by the principal. Where major work is involved, it may be

appropriate to seek a health and safety plan in writing from the contractor or subcontractor.

1.6 Children and young persons

The Health and Safety in Employment Regulations restrict employers from employing or allowing the presence of young people under the age of 15 years in the following hazardous work areas (except where closely supervised children are brought into the place of work on organised school trips or for other similar educational purposes):

- Places where goods are manufactured for trade or sale;
- Places where construction work is being carried out;
- Places where forestry work is carried out; and
- Any other place where there is being carried on work which may be prejudicial to the health and safety of those under the age of 15 years.

Employers are not permitted to allow young people under 15 years of age to lift any weights or perform any tasks that may be injurious to their health.

Employers should ensure that no young person under 15 works or assists with work on machinery.

Employers should also take all practical steps to ensure that no young person under the age of 18 years cleans any machine while the machine is in motion or that they work between the fixed and traversing part of any machine while it is in motion.

Employers should not employ young people who have not attained the age of 16 between the hours of 10 pm and 6 am, unless that type of work is subject to an approved code of practice. (Approved codes are statements of preferred work practices or arrangements approved by the Minister of Labour, following consultation with interested parties. Refer to section 20 of the Act.)

Refer also to section 2.23, Young people on tractors.

1.7 Agrichemicals

Chemicals used in agriculture include pesticides, herbicides, fungicides, pest and vermin poisons, dips, pour-ons and solvents. The basic precautions are as follows:

- Obtain product safety information from chemical suppliers.
- Determine the health hazards associated with the chemical.
- Use the chemical in accordance with the manufacturer's instructions.

Legislation — Children and young persons

REGULATIONS

PART V

Duties in Relation to Young Persons

Duties of Employers to Young Persons

54. Employment of young persons—(1) Subject to subclause (2) of this regulation, every employer shall take all practicable steps to ensure that no employee under the age of 15 years works in any area at a place of work under the control of that employer—

- (a) At any time when goods are being prepared or manufactured for trade or sale in that area;
 - (b) At any time when any construction work is being carried out in that area;
 - (c) At any time when any logging operation or tree-felling operation is being carried out in that area;
 - (d) At any time when any work is being carried out in that area that is likely to cause harm to the health and safety of a person under the age of 15 years.
- (2) Subclause (1) of this regulation does not apply to any area if an employee under the age of 15 years works at all times—
- (a) In any office in that area; or
 - (b) In any part of that area used only for selling goods or services.

55. Injurious tasks—Every employer shall take all practicable steps to ensure that no employee under the age of 15 years is required to lift any weight or to perform any task at any place of work under the control of that employer, where lifting the weight or performing the task would be likely to be injurious to the employee's health.

56. Machinery—Every employer shall take all practicable steps to ensure that no employee under the age of 15 years, at any place of work under the control of that employer,—

- (a) Works at or with any machinery; or
- (b) Assists with work at or with any machinery.

58. Night employment—Every employer shall take all practicable steps to ensure that no employee under the age of 16 years works, at any place of work under the control of that employer, between the hours of 10 p.m. on any day and 6 a.m. on the next day, unless the employee's employment is in all respects in accordance with an approved code of practice relating to the employment of people under the age of 16 years between those hours in work of the kind the employee is doing.

Legislation — Agrichemicals

ACT

Section 6(d) applies. It is reproduced at section 1.8 below.

- Store chemicals correctly in a secure place.
- Wear all necessary protective equipment and maintain and store this equipment properly.
- Ensure washing and changing facilities are provided where necessary.
- Dispose of empty chemical containers in accordance with regional council requirements.

FURTHER INFORMATION

Standard

NZS 8409:1995 *Agrichemical users' code of practice*

OSH publications

The Farmers' and Growers' Guide to The Health and Safety in Employment Act 1992

Working With Organic Solvents

A Guide to the Safe Use of Agrichemicals in Forestry

Other publications

Safety With Pesticides in New Zealand Agcarm booklet

Code of Practice NZ Agrichemical Education Trust

Legislation — Animal handling

ACT

6. Employers to ensure safety of employees —

Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to —

.....

(d) Ensure that while at work employees are not exposed to hazards arising out of the arrangement, disposal, manipulation, organisation, processing, storage, transport, working, or use of things—

(i) In their place of work; or

(ii) Near their place of work and under the employer's control; and

.....

1.8 Animal handling

All practicable steps should be taken to cope with the physical hazards associated with handling farm animals. (Disease hazards are mentioned in section 1.16.) Because of the significant hazards associated with handling deer, cattle, pigs, horses, sheep and other animals, specialist advice will be necessary for those unfamiliar with stock handling.

Yarding sheep

Safety when yarding can be improved when yards are well designed. Safety boots or stout boots should be worn when yarding, as a sheep standing on the foot of a person wearing gumboots may cause bruising.

A neck, or leg crook should be used for catching sheep, especially sheep with horns.

When drenching sheep, they should be packed tightly in the race.

Lifting sheep

Avoid lifting sheep as many injuries are caused this way. If sheep do have to be lifted, bend your knees and use your leg muscles.

Ramps should be used wherever possible, so that lifting can be avoided.

If a sheep does have to be lifted over a fence, the following steps should be followed:

1. Hold the sheep against the rail and straddle the rump. One hand should be on the rail, the other under the sheep's neck.
2. Using the rail for support, take the strain off the back and pull the sheep on to its hind legs.

3. The hand on the rail should be moved from the rail under the nearest leg to grasp the opposite front leg.
4. Move the other hand from under the neck and firmly grasp the fold of skin between the belly and hind leg.
5. Crouch behind the sheep, bend the knees, take the weight on the knees and hold it firmly.
6. Stand up using the legs, not the back, and lift the sheep off the ground.
7. Swing the sheep up towards the top of the fence, boosting it with your leg.
8. Put the sheep on top of the rail and let it see the ground.
9. With a slight rolling movement, let the sheep fall onto its feet.

Handling sheep

When sitting up sheep, the best method is to turn the sheep's head onto its shoulder. In a clear area, the sheep should be held against braced knees with one hand under the chin and one on the rump. Next, the sheep's head should be turned to the rear while the other hand forces the hindquarters down against the leg. When the sheep is no longer standing on its feet, you can then lift the front leg and sit the sheep securely on its rump.

To save effort and avoid back strain when shearing, get the animal to walk backwards and then sit it on its rump. Correct techniques must be used when shearing, and thorough training should be provided for people involved in this work. Aids such as a counterbalance may help to reduce back strain.

Cattle

All cattle, especially cows with young, and territorial bulls, can be unpredictable — therefore people handling them should also have an escape route. It is also important not to underestimate the speed with which these large animals can move.

Cattle mustering should be done in the cooler parts of the day after a long grazing period when they have finished feeding. The route should be prepared in advance.

Lifting calves

- Squat down beside the calf, facing across its back.
- Put one arm across the front of the chest and the other arm around the hindquarters.
- As you straighten your legs, the calf is lifted off the ground.

This close body contact usually has a calming effect on the calf.

Carrying calves

Calves can be carried over short distances the same way as they are lifted. For longer distances, it is easier to transport them in a carry-all tray or similar device.

Legislation — Cleanliness

ACT

6. Employers to ensure safety of employees—

Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to—

- (a) Provide and maintain for employees a safe working environment; and
 - (b) Provide and maintain for employees while they are at work facilities for their safety and health; and
-

REGULATION

9. **Duty in respect of cleanliness of place of work**—Every employer shall take all practicable steps to ensure that every place of work under the control of that employer is kept in a clean and hygienic state.

Legislation — Construction work on farms

REGULATION

26. **Notification**—(1) In this regulation, the term “employer” includes a person who controls a place of work.

(2) Subject to subclause (4) of this regulation, every employer who intends to commence any notifiable work or any work that will at any time include any notifiable work shall take all practicable steps to lodge notice of that intention in accordance with this regulation.

(3) A notice required to be lodged under subclause (2) of this regulation shall—

- (a) Be lodged at an office that deals with occupational safety and health matters, being the nearest such office of the Department to the place where the work is to be carried out; and
 - (b) Be in writing; and
 - (c) Be given at least 24 hours before the time at which the employer intends to commence the work; and
 - (d) Contain the following particulars—
 - (i) The nature and location of the work; and
 - (ii) The name, address, and contact details of the employer; and
 - (iii) The intended date of commencement of the work; and
 - (iv) The estimated duration of the work.
- (4) It shall not be necessary for any employer to comply with subclause (2) of this regulation before commencing any construction work or tree felling operation necessary to deal with an emergency arising from —

- (a) Damage caused by any earthquake, explosion, fire, flood, lightning, rain, slip, storm, or washout; or
- (b) The blockage or breakdown of any drain or sewer; or
- (c) The blockage or breakdown of any distribution system or network for electricity, gas, telecommunications, or water.

FURTHER INFORMATION

Wools of New Zealand — courses and booklets.

1.9 Cleanliness

Where practical, employers should keep the place of work in a clean, safe and hygienic state. It is intended that this requirement be applied to buildings and other structures in which or near to which people work.

1.10 Construction work on farms

Special requirements exist for construction work, and this includes some construction work carried out on farms.

Certain types of construction work should be notified to the Occupational Safety and Health Service before commencement. These notification requirements are set out in the regulations. (Regulation 2 defines “notifiable work” and regulation 26 describes the process of notification.) Further information is available from any OSH branch office.

FURTHER INFORMATION

OSH publication

Guidelines for the Provision of Facilities and General Safety in the Construction Industry

1.11 Electrical safety

The electrical wiring and fittings of machinery connected to the mains supply (or similar) must comply with the Electricity Regulations 1993.

All portable or hand-held machinery that derives power from an electrical current should be used with an isolating transformer or residual current device properly connected. Specific guidance on the suitable types and use of these devices should be sought from the appropriate electrical supply authority or from an electrical inspector.

FURTHER INFORMATION

Electricity Act 1992

Electricity Regulations 1993

NZ Electrical Code of Practice for Electrical Installations in Damp Situations

1.12 Fencing vessels and excavations containing liquids

In any place of work where there is any fixed vessel, hazardous enclosure, excavation, pan,

pit, structure, sump, vat, or other container that contains any liquid (whose edge is not more than 1 metre above the ground) should be, where practical, fenced.

It will be practical to fence areas on farms such as sheep dips and some smaller hazards of this type.

It will not be practical to fence large natural hazards of this type and likewise it is not intended that vessels such as animal drinking troughs be fenced.

FURTHER INFORMATION

OSH publication

Safe Access

1.13 Forestry work on farms

Special requirements exist for forestry work, and this includes forestry work carried out on farms.

Any logging or tree-felling operation carried out for commercial purposes should be notified to OSH, before it is carried out. Regulation 2 defines "notifiable work", while regulation 26 describes the process of notification. Further information can also be obtained from any OSH branch office.

FURTHER INFORMATION

OSH publications

Maintenance of Trees Around Power Lines

Safety Code for Forest Operations: 1. *Forest Establishment and Silviculture*

Safety Code for Forest Operations: 2. *Cable Logging*

Safety Code for Forest Operations: 3. *Logging*

Safety Code for Forest Operations: 4. *Transportation of Logs*

1.14 Hazard identification and control

Managing health and safety effectively begins with identification of the actual and potential hazards that can harm people in the place of work.

Once identified, the significant hazards should be appropriately controlled.

The Health and Safety in Employment Act 1992 requires employers, with the involvement of their employees, to identify and control hazards. Once the hazards are identified, the following steps should be taken:

- The first attempt should be to eliminate or remove the hazard. (An example of elimination is the substitution of a hazardous chemical with a non-hazardous chemical.)
- If it is not practical to eliminate the hazard, then employees should be isolated from the hazard. An example of isolation is machinery guarding which isolates people from the

Legislation — Electrical safety

ACT.

General Duties of Employers

6. Employers to ensure safety of employees — Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to—

.....

(c) Ensure that plant used by any employee at work is so arranged, designed, made, and maintained that it is safe for the employee to use; and

.....

Legislation — Fencing vessels and excavations containing liquids

ACT.

General Duties of Employers

6. Employers to ensure safety of employees — Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to—

.....

(c) Ensure that plant used by any employee at work is so arranged, designed, made, and maintained that it is safe for the employee to use; and

.....

14. Containers of liquids—(1) In this regulation, the term "hazardous container"—

(a) Means any enclosure, fixed vessel, pit, structure, sump, vat, or other container of a similar kind—

(i) That contains any liquid; and

(ii) The edge of which is not at least 1 metre above the adjoining floor, ground, or platform; but

(b) Does not include any drinking trough for animals or any system of

water collection, disposal, distribution, or storage.

(2) Every employer shall take all practicable steps to ensure, in relation to every place of work under the control of that employer, that, where there is any hazardous container at that place of work, either—

(a) The hazardous container is securely covered; or

(b) There is placed around the hazardous container a secure fence that—

(i) Extends at least 1 metre above the adjoining floor, ground, or platform; and

(ii) Is in a position that will provide adequate protection for any employee near the hazardous container.

Legislation — Forestry work on farms

REGULATION.

Regulation 26 applies. It is reproduced at section 1.10, Construction work on farms.

Legislation — Hazard identification and control

ACT.

Sections 7 -10 apply. They are reproduced at 1.1, Duties of employers.

hazardous parts of the machine (the hazard has not been eliminated by the provision of a guard because it is still there behind the guard).

- If it is not practical to do either of these things then the effects of the hazard on the employees in the place of work should be minimised. This in effect means doing everything else practicable to make the work safe, and may include:

- Providing and ensuring the use of protective equipment and clothing;
- Monitoring employees' exposure to the hazard;
- With the employees' informed consent, monitoring their health;
- Providing the employees with the results of the monitoring of their health; and
- Providing employees with results relating to the monitoring of the place of work.

FURTHER INFORMATION

OSH publications

The Farmers' and Growers' Guide to the Health and Safety in Employment Act 1992

A Guide to Managing Health and Safety to Meet the Requirements of the Health and Safety in Employment Act 1992

A Guide to the Health and Safety in Employment Act 1992

How to Identify and Control Hazards

Other publications

Hazard management packages are available from:

ACC, Federated Farmers and other agricultural organisations, employer and employee organisations, and private sector consultants

Legislation - Health monitoring

ACT

Sections 10 and 11 apply. They are reproduced at 1.16, Occupational diseases, below

1.15 Health monitoring

Most biological (health) monitoring procedures require an initial or baseline test to determine normal levels in the individual prior to exposure.

Noise

Ongoing hearing surveillance programmes should be implemented for people exposed to noise hazards likely to damage their hearing.

Monitoring of employee health in relation to exposure to noise levels above a daily (8 hours per day) average exposure of 85 dB(A), or a peak level of 140 dB should be carried out even where employees use appropriate hearing protection. This monitoring should be carried out at least once every two years. See section 1.17, Noise.

Pesticides

The health of employees working with pesticides should also be monitored. Again, this will apply even where the appropriate protective equipment is used. The health of employees working with organophosphate pesticides should be monitored regularly. In particular, any person spraying organophosphates for 30 hours or more in a 30-day period should have

blood cholinesterase activity monitored. It may also be necessary to monitor employee health in relation to other chemicals.

Zoonotic disease

Because of the possibility that agricultural employees may become infected with diseases carried by farm animals (zoonotic disease), monitoring of health in relation to these diseases may also be necessary. Refer to section 1.16, Occupational diseases.

Exposure to other hazards may also require health monitoring. Further advice can be obtained from health professionals such as doctors and occupational health nurses.

FURTHER INFORMATION

Standard

NZS 8409:1995 *Agrichemicals users' code of practice*

OSH publications

How to Identify and Control Hazards

1.16 Occupational diseases

A variety of occupational diseases can afflict people who work in the agricultural sector and these include the following categories:

Occupational skin disease

Occupational skin disorders are very common, with about 80% of these falling into the category of industrial dermatitis usually caused by contact with irritants. Dermatitis is the term used to describe any non-infectious inflammation of the skin. Soaps and detergents are common irritants, and prolonged exposure to kerosene and turpentine will also cause problems.

Allergic contact dermatitis is caused by contact with compounds that penetrate the skin to enable sensitisation to occur in susceptible people. The list of potential sensitisers is immense — but common ones are nickel, chrome, synthetic glues, and epoxy resins. Other skin disorders include occupational skin cancer and infections.

Prevention of skin disease centres on breaking the contact cycle with the primary cause. This may involve removal from the process or ensuring that adequate protective barriers are used, such as gloves. Substitution of the primary cause with another material is often an option. Barrier creams by themselves will not generally break the cycle.

Occupational lung disease

Two broad categories of occupational lung disease are:

- Allergic; and
- Dust induced.

LEGISLATION - Occupational diseases

ACT

10. Significant hazards to employees to be minimised, and employees to be protected, where elimination and isolation impracticable

— (1) Where—

- (a) There is a significant hazard to employees at work; and
- (b) Either—
 - (i) There are no practicable steps that may be taken to eliminate it; or
 - (ii) All practicable steps to eliminate it have been taken, but it has not been eliminated; and
- (c) Either—
 - (i) There are no practicable steps that may be taken to isolate it from the employees; or
 - (ii) All practicable steps to isolate it from the employees have been taken, but it has not been isolated,— the employer shall take the steps set out in subsection (2) of this section.

(2) The steps are —

- (a) To take all practicable steps to minimise the likelihood that the hazard will be a cause or source of harm to the employees; and
- (b) To ensure that there is provided for, accessible to, and used by the employees suitable clothing and equipment to protect them from any harm that may be caused by or may arise out of the hazard; and

.....

Duties of Employers in Relation to Information

11. Employees to be given results of monitoring—

- (1) This section applies to the results of any monitoring of any employee or place of work if it was undertaken in compliance with this Act; and—
 - (a) If the monitoring was undertaken by or on behalf of an employer; or
 - (b) If—

(i) The monitoring was undertaken by or on behalf of a department (within the meaning of the State Sector Act 1988); and

(ii) The results have been given to an employer.

(2) Subject to subsection (3) of this section, every employer shall ensure that—

(a) Every employee is given all results to which this section applies of monitoring of the employee (whether as an individual or as one of a number of employees) in relation to health or safety; and

(b) All employees who ask for them are given all results to which this section applies of general monitoring of—

(i) Conditions in the employee's place of work; or

(ii) The health or safety of employees there.

(3) Every employer shall ensure that—

(a) There are omitted from all results to which this section applies given to any individual employee all information that identifies, or discloses anything about, any other individual employee; and

(b) There are omitted from all results to which this section applies given to any group of employees all information that identifies, or discloses anything about, any employee.

12. Information for employees generally —

Every employer shall ensure that every employee who does work of any kind, or uses plant of any kind, or deals with a substance of any kind, in a place of work has been given, in such a form and manner that the employee is reasonably likely to understand it, information about—

(a) What to do if an emergency arises while the employee is doing work of that kind, using plant of that kind, or dealing with substances of that kind, in that place; and

(b) All identified hazards to which the employee is or may be exposed while doing work of that kind, using plant of that kind, or dealing with substances of that kind, in that place, and the steps to be taken to minimise the likelihood that the hazards will be a cause or source of harm to the employee; and

(c) All identified hazards the employee will or may create while doing work of that kind, using plant of that kind, or dealing with substances of that kind, in that place, and the steps to be taken to minimise the likelihood that the hazards will be a cause or source of harm to other people; and

(d) Where all necessary safety clothing, devices, equipment, and materials are kept.

The allergic disease is the most common type in New Zealand, and it causes occupational asthma. Characteristic symptoms are wheeze, chest tightness and cough. When associated with occupational exposure, a medical investigation should be carried out. Some examples of occupational asthma causes include enzymes, animal urine, grain, dust, flour, wood dust, isocyanates and epoxy resins.

Another group of diseases create an allergic response in the tissue of the lung rather than the large airways, as with asthma. Once again there are many causative agents, but the most common is mouldy hay causing “farmer’s lung”.

The term “pneumoconiosis” means dust in the lung and constriction caused by inhalation of dusts such as asbestos and silica causing asbestosis and silicosis respectively.

Occupational disease from the use of agrichemicals

Occupational poisoning occurs mainly through skin absorption. However, inhalation of spray is also significant.

Material safety data sheets and label instructions should be strictly followed when mixing, handling, storing and using these chemicals. It is essential that recommended protective equipment is used. See section 1.7, Agrichemicals.

Occupational communicable diseases of importance to farmers

Occupational communicable diseases are the main cause of illness in the agricultural sector. Human diseases caused by contact with animals are called zoonotic diseases. These can be transmitted from infected animals with the most common being:

- Leptospirosis;
- Orf; and
- Ringworm.

Brucellosis and hydatids have now been virtually eliminated. On rare occasions cases of bovine tuberculosis and ornithosis appear.

Leptospirosis

People are infected by contact usually through the skin from infected urine. A wide range of animals can be infected but these are usually either domestic cattle or pigs. Wild animals such as rodents, hedgehogs and possums are also potentially capable of transmitting the disease.

This disease is very debilitating and can cause prolonged illness. The major control strategy in cattle and pigs is to vaccinate them against the disease and to control wild rodents, etc.

Protective clothing and footwear should always be worn in the cowshed.

Orf

Orf is a skin disease that mainly affects farmers and freezing workers. It is transmitted from sheep or goats suffering from scabby mouth. Contact with infected animals and material

such as skins, where the virus can penetrate broken skin, will cause lesions to develop on the hands or forearm. Control is achieved by keeping cuts and scratches covered and wearing gloves if handling potentially infected animals.

Ringworm

Fungal conditions of the skin such as ringworm can be linked to cats, dogs, and other small animals. Control is simple once a diagnosis is confirmed and medical treatment is applied.

Legionellosis

This disease is caused by a bacteria called *legionella longbeachae* that occurs naturally in soils, composts and potting mixes. It is suspected that the disease is caught by breathing in fine dust or aerosols of water containing the bacteria. Protective measures include the use of suitable respirators and using work practices that lower the likelihood of dusts or aerosols of water occurring.

FURTHER INFORMATION

OSH publications

Information Bulletin: *Bovine Tuberculosis*

A Guide to the Management of Occupational Asthma

A Guide to Occupational Skin Disease

Legionellosis: What you should know if you work with soils, compost, or potting mix

Information Bulletin: *Leptospirosis*

Information Bulletin: *Leptospirosis in Pigs*

1.17 Noise

Exposure to noise levels above a daily average exposure of 85 dB(A), (over no more than 8 hours each day, and no more than 40 hours per week) or a peak noise level of 140 dB is likely to cause people with unprotected hearing to suffer noise-induced hearing loss.

The following examples give typical noise levels (measured at the operator's ear) associated with some agricultural machinery and activities:

• Tractor

| | |
|----------------------------------|----------------|
| Idling | 75 - 80 dB(A) |
| Working hard (without a cab) | 95 - 100 dB(A) |
| Working hard (with enclosed cab) | 75 - 85 dB(A) |

• Header

85 - 95 dB(A)

• Orchard sprayer

85 - 100 dB(A)

• Angle grinder

95 - 105 dB(A)

Legislation — Noise

REGULATION

11. **Noise**—(1) Every employer shall take all practicable steps to ensure, in relation to every place of work under the control of that employer, that no employee is exposed to noise above the following levels:

(a) A noise exposure level, $L_{Aeq,8hr}$, of 85 dB(A); and
(b) A peak noise level, L_{peak} , of 140 dB,—
whether or not the employee is wearing a personal hearing protection device.

(2) For the purposes of subclause (1) of this regulation,—

(a) The noise exposure level, $L_{Aeq,8hr}$, is the level of the daily noise exposure normalised to a nominal 8-hour day, in dB(A) referenced to 20 micropascals; that is to say, it is the steady noise level that would, in the course of an eight hour period, cause the same A-frequency-weighted sound energy as that due to the actual noise over the actual working day; and

(b) The peak noise level, L_{peak} , is the highest frequency-unweighted peak sound pressure level in the place of work in decibels referenced to 20 micropascals, measured using sound measuring equipment with “P” time-weighting, as specified in the Australian Standard numbered AS 1259.1-1990 and entitled “Sound level meters Part 1: Non-integrating”; and

(c) The levels of noise referred to in subclause (1) of this regulation shall be measured and assessed in accordance with the Australian Standard numbered AS 1269-1989 and entitled “Acoustics— Hearing conservation”.

(3) Where an employer has taken all practicable steps to ensure that no employee at any place of work under the control of that employer is exposed to noise above the levels specified in subclause (1) of this regulation but has not eliminated the risk that any employee may be exposed to noise above those levels, the employer shall communicate clearly, by way of signs, labelling of machinery, or other appropriate means—

(a) The fact that noise levels at the place of work are or are likely to be hazardous; and

(b) The sort of personal hearing protection device that is suitable to protect against the noise levels; and

(c) Where such a device may be obtained.

| | |
|-------------------------------------|-----------------|
| • Bench grinder | 90 - 95 dB(A) |
| • Chainsaw | |
| Idling | 80 - 90 dB(A) |
| Cutting | 105 - 120 dB(A) |
| • Pig shed at feeding time | 95 - 105 dB(A) |
| • Motor mower | 95 - 100 dB(A) |
| • Grain auger | 85 - 95 dB(A) |
| • Woolshed during shearing | up to 97 dB(A) |
| • Motorcyclist (with helmet) | |
| at 50 km/h | 90 - 95 dB(A) |
| at 100 km/h | 100 - 105 dB(A) |
| • Shotgun | 140+ dB |

All practicable steps should be taken to reduce noise at its source, and when buying new machinery the quietest machinery should be obtained.

Appropriate hearing protection should be provided for employees and others in the place of work who are likely to suffer from noise-induced hearing loss.

FURTHER INFORMATION

OSH publications

Approved Code of Practice for the Management of Noise in the Workplace
Noise Induced Hearing Loss: A Message to Employers on Preventing Hearing Loss
Noise Induced Hearing Loss: A Message to Employees on Avoiding Hearing Loss

Legislation — Manual handling

ACT

General Duties of Employers

6. **Employers to ensure safety of employees—**
 Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to—

....

(d) Ensure that while at work employees are not exposed to hazards arising out of the arrangement, disposal, manipulation, organisation, processing, storage, transport, working, or use of things—

(i) In their place of work; or

(ii) Near their place of work and under the employer's control; and

1.18 Manual handling

In addition to animal handling, many tasks involve lifting, carrying, pushing and pulling movements which can result in physical injury to employees. The OSH booklets *Manual Handling: A Workbook* and *Manual Handling: Guidelines for the Workplace* offer an approach that will reduce the likelihood of this type of injury occurring.

FURTHER INFORMATION

OSH publications

Manual Handling: A Workbook
Manual Handling: Guidelines for the Workplace

1.19 Prevention of falls from heights

Employers should take all practical steps to ensure that where a fall from 3 metres is possible that fencing or other means are provided to help prevent a fall.

This will be practical in relation to most man-made structures. It is recognised that it is not usually practical to fence natural hazards and that employers and employees should take due care in situations where falls can occur.

FURTHER INFORMATION

OSH publication

Safe Access

1.20 Ladders

The use of ladders to gain ready access to work sites as a means of carrying out some work activity is often a necessity. It is important that employers, employees and others using ladders should observe the following:

- Ladders should be kept clean and free from foreign materials;
- No one should over-reach from any ladder. Where the work cannot be accessed, the ladder should be moved to allow ease of access;
- Ladders should be positioned as close as possible to the work;
- Appropriate training in the use of ladders should be provided;
- Restrain ladders both top and bottom to prevent accidental displacement;
- Only the ladder most suitable for the work to be carried out should be used;
- Step ladders should have a lockable spreader;
- Ladders should be stored so as to avoid sagging;
- The feet of single or extension ladders should be placed 1/4 of the ladder's working length away from the base structure;
- Two people should be used to carry long heavy ladders;
- Where a ladder is used to gain access to a working platform, the ladder should extend 1 metre above the working platform.

FURTHER INFORMATION

Standards

NZS 5233: 1986 *Specification for portable ladders (other than timber ladders)*

NZS/AS 1657: 1985 *Fixed platforms, walkways, stairways and ladders. Design, construction and installation*

NZS 3609: 1978 *Specification for timber ladders*

OSH publication

Safe Access

Legislation — Prevention of falls from heights

ACT.

General Duties of Employers

6. Employers to ensure safety of employees— Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to—
(a) Provide and maintain for employees a safe working environment; and

....

Legislation — Ladders

ACT.

General Duties of Employers

6. Employers to ensure safety of employees— Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to—

....

(d) Ensure that while at work employees are not exposed to hazards arising out of the arrangement, disposal, manipulation, organisation, processing, storage, transport, working, or use of things—
(i) In their place of work; or
(ii) Near their place of work and under the employer's control; and

....

Other Duties

15. Duties of employers to people who are not employees — Every employer shall take all practicable steps to ensure that no action or inaction of any employee while at work harms any other person.

16. Duties of persons with control of places of work—

To the extent that a person is—

(a) The owner, lessee, sublessee, occupier, or person in possession of a place of work or any part of a place of work (not being a home occupied by the person); or

(b) The owner, lessee, sublessee, or bailee, of any plant in a place of work (not being a home occupied by the person),—the person shall take all practicable steps to ensure that people in the place of work, and people in the vicinity of the place of work, are not harmed by any hazard that is or arises in the place of work.

17. Duties of self-employed people — Every self-employed person shall take all practicable steps to ensure that no action or inaction of the self-employed person while at work harms the self-employed person or any other person.

18. Duties of principals — (1) Every principal shall take all practicable steps to ensure that—

(a) No employee of a contractor or subcontractor; and

(b) If an individual, no contractor or subcontractor,—is harmed while doing any work (other than residential work) that the contractor was engaged to do

(2) Subsection (1) of this section shall be read subject to section 2 (2) of this Act.

19. Duties of employees — Every employee shall take all practicable steps to ensure—

(a) The employee's safety while at work; and

(b) That no action or inaction of the employee while at work causes harm to any other person.

1.21 Work-related visits to private land (farm or other property)

Responsibilities

The Health and Safety in Employment Act is concerned with managing work in a healthy and safe manner to prevent harm to employees and others affected by the work carried on. It recognises that more than one person may have the ability to prevent harm, and imposes duties accordingly. These duties are applied taking into account the ability to control the work and prevent harm occurring. If there is limited ability to control the work or events leading up to any harm occurring, a limited liability would exist. Consequently, if a person had the ability to control the work or events, and took no action and harm occurred, liability may exist.

Where employers require their employees to work on private land, e.g. visits to farms by vets, farm advisors, meter readers, local authority employees, or similar visiting workers, the part of the farm or property where they are to work will be their place of work.

The employer of the visiting employee, not the farmer or landowner, will be the person with control of a place of work. They are required to take all practicable steps to ensure that people in the place of work, and people in the vicinity of the place of work, are not harmed by any hazard that is in, or arises in, the place of work. This would include, if the employee's employer has provided and maintains an access road across the farm to the place of work, a duty to take all practicable steps to ensure that the access road is safe to be used by her/his employee, or any contractor working for that employer.

It is the duty of the visiting employee's employer to ensure that the work required to be done in that place, can be carried out safely, and that all practicable steps are to be taken to ensure the safety of her/his employees while at work. There is also a duty to ensure that all plant (equipment) used by the employee is suitable and safe to use, and that the employee is trained to use it.

The Act provides for responsibilities to be shared and an overlap of the duties imposed by the Act will occur. A principal can have a duty to a contractor; the contractor a duty to her/his own employees, and a self-employed contractor to themselves and others.

Farmers and landowners have a duty to take all practicable steps to ensure that no work activity carried on by them will cause or become a source of harm to other people.

Gaining access

In taking all practicable steps, and prior to visiting a farm to undertake work (even if a legal right of entry exists), the farmer or owner of the land to be visited should be contacted and advised of the visit. When contacted, the farmer should advise the intended visitor (employer) of any work hazard in the area and take all practicable steps to ensure that no

work hazard will be a cause or source of harm to the visitor (employee/ contractor or contractor's employee).

The visiting employer is to take all practicable steps to ensure that her/his employees can access and carry out the work safely, and that the employee takes no action or inaction that could harm any other person.

Where contact with the farmer or landowner is not possible, or an emergency arises, the visiting employer is to take all practicable steps to ensure that her/his employees understand the need to take all appropriate action for their own and other people's safety while accessing or working in the place of work.

Contractors

If an organisation lets out a contract for work to be performed on private land, the organisation letting the contract would assume the duties of a “principal” under the Act. The principal is to take all practicable steps to ensure that no employee of the contractor, no contractor or subcontractor (including self-employed contractors or subcontractors) are harmed while doing any work that the contractor was engaged to do.

The contractor should be made aware of any hazard associated with the contracted work and the precautions to take. If the principal supplies any plant or equipment, the principal is to ensure it is suitable and safe to use, and that the contractor knows how to use it. If the contractor is an employer, the contractor has the duties of an employer imposed by the Act.

Dealing with hazards

The owner of the farm or land is required to take all practicable steps to ensure that no work activity carried out by her/him, or plant used, will cause or be a source of harm to the visiting employer's employees, contractor's employees, or self-employed contractor (person), including subcontractors, while they are accessing, leaving, or in the area they are required to work. In taking all practicable steps to ensure that hazards arising from work, or work activities will not cause harm, the farmer or landowner may need to provide information, instructions or warning signs to alert people to known hazards, e.g. weight limits for access bridges, presence of unruly animals, use of pesticides, etc.

If the farmer or landowner, while carrying out their own work, accidentally damages or otherwise causes an access road, plant, equipment, or installation, provided and owned by another person, to become unsafe, they must advise that person.

The visiting employer should ensure that their employees are aware that they must take notice of any such information, instruction, or warning signs, and that they should not proceed if in doubt, until they contact the farmer or landowner for advice. If contact with the farmer or landowner can not be made, the visiting employee should report back to her/his employer before proceeding. If an obvious hazard exists, access to the work area or work should cease until it is safe to proceed. Visiting employees must be advised not to venture into unauthorised areas.

If a farmer or landowner provides plant or equipment for the use of another person's employee or visitors, they will need to take all practicable steps to ensure that it is safe and suitable for use, and satisfy themselves that the person using it is capable of doing so safely. A visiting employee's employer would need to ensure that her/his employee did not use borrowed plant or equipment without their permission, and take all practicable steps to ensure that such plant or equipment was safe and suitable for use by their employee, and that their employee was capable of using it safely.

Accidents

Any accident, incident or occurrence of serious harm to an employee working on another person's farm or property, will need to be recorded, investigated or notified as necessary by the injured employee's employer.

Legislation — Recreational visitors to farms, private or public land

ACT

Other Duties

...

16. Duties of persons with control of places of work—

To the extent that a person is—

(a) The owner, lessee, sublessee, occupier, or person in possession of a place of work or any part of a place of work (not being a home occupied by the person); or

(b) The owner, lessee, sublessee, or bailee, of any plant in a place of work (not being a home occupied by the person),—the person shall take all practicable steps to ensure that people in the place of work, and people in the vicinity of the place of work, are not harmed by any hazard that is or arises in the place of work.

....

1.22 Recreational visitors to farms, private or public land

The Health and Safety in Employment Act 1992 primarily applies to people at work. However, section 16 of the Act places responsibility on people in control of the place of work to take all practical steps to ensure the health and safety of all people in the place of work. See section 1.6, Children and young persons.

Duties

Note: At the time of publication of these guidelines, amendments were before Parliament. The proposed changes are intended to make it clear that only those persons visiting the farm for a purpose connected with the workplace will be covered by the Act.

The Act imposes no duties on members of the public who visit or are allowed access on to — or the use of — farm property, private, or public land. Such visitors are responsible for their own health and safety while undertaking their recreational activity.

However, the farmer or landowner is required to take all practicable steps to ensure that no work activity or plant on the farm or land will cause or be a source of harm to the visitor while they are accessing, leaving, or on the farm or land.

The farmer is not expected to make her/his farm hazard free specifically for access by visitors, but to ensure that hazards in or arising from work on the farm do not cause or become a source of harm to visitors to the farm.

While the Act does not place duties on people other than those covered by its provisions, visitors should be aware that many natural hazards and work-related hazards exist on farms, private, or public land, and they should take appropriate precautions, by not:

- Interfering with any plant or equipment, including electrical installations, fences or equipment;

- Entering unauthorised areas or farm buildings;
- Disturbing or unnecessarily approaching farm animals or work activities;
- Allowing children to wander unsupervised;
- Ignoring instructions or warnings; or
- Leaving gates open or damaging fences.

Farmers and property owners are not responsible for ensuring that natural hazards or any risks associated with the recreational activity carried on by a visitor do not cause harm to the visitor or any spectators involved.

Warnings and information for visitors

In taking “all practicable steps” as set out above, the farmer or landowner may need to provide information, instructions or warning signs to alert people to known hazards. Visitors should ensure that they take notice of any such information, instruction, or warning signs, and that they should not proceed if in doubt, until they contact the farmer or landowner for advice. Visitors should not venture into unauthorised areas.

If the owner or occupier cannot be contacted, the visitor should not proceed, and where obvious hazards exist, appropriate precautions would need to be taken by the visitor.

1.23 Silos, bins and tanks

Silos, bins and tanks are confined spaces that can accumulate hazardous concentrations of fermentation gases, mainly methane, nitrogen oxide and carbon dioxide. The presence of these gases can lead to a depletion of the available oxygen. Fermentation gases can also present an explosion hazard.

Control of entry

Employers should use the work permit system (common in many factories) to manage entry into bins, silos or tanks. As an alternative, the employer or their representative should be present to supervise the entry.

The air inside such enclosures should be tested for oxygen content both before and during the entry into the enclosure, unless there is continuous natural air movement from at least two openings at different heights or, alternatively, sufficient mechanical ventilation is provided.

Entry into these enclosures should not be permitted if the oxygen content is below 19.5%, unless the people working in the enclosure are provided with air-fed respirators and the concentration of flammable vapours is monitored as being less than 10% of the lower explosive limit (LEL).

Legislation — Silos, bins and tanks

ACT.

General Duties of Employers

6. Employers to ensure safety of employees— Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to —

(a) Provide and maintain for employees a safe working environment; and

....

(c) Ensure that plant used by any employee at work is so arranged, designed, made, and maintained that it is safe for the employee to use; and

(d) Ensure that while at work employees are not exposed to hazards arising out of the arrangement, disposal, manipulation, organisation, processing, storage, transport, working, or use of things —

(i) In their place of work; or

(ii) Near their place of work and under the employer's control; and

(e) Develop procedures for dealing with emergencies that may arise while employees are at work.

REGULATION.

15. Loose but enclosed materials — (1) In this regulation, the term “material” means material—

(a) That consists of or includes solid material in such a form or state, or in pieces or particles so small, that it is capable of subsiding or flowing in such a manner as to trap or engulf any person; and

(b) That is enclosed inside a structure.

(2) Every employer shall take all practicable steps to ensure, in relation to every place of work under the control of that employer, that, where any employee may be trapped or engulfed by material, there is provided a safety-belt or safety harness that is—

(a) Suitable for the purpose for which it is to be used; and

(b) Attached to a life-line or other device; and

(c) Securely fastened at its extremity; and

(d) Attended by another employee who is competent, equipped, and stationed to effect an immediate rescue, if any employee is so trapped or engulfed.

Personal safety equipment for entry

All people who enter these enclosures should wear a body harness with a lifeline attached in case they become trapped in the stored material, are overcome by fumes or pass out due to a lack of oxygen. Such a lifeline should be securely fastened at the end.

The lifeline and safety harness should be strong enough to allow the employee to be pulled out if they are trapped or engulfed by the material.

Where any person enters a silo with such a lifeline attached they should be assisted by someone who observes them while they are in the silo and who is capable of retrieving them if required.

Dust hazards

Finely milled stock feeds and grains may form suspended dust clouds that are capable of producing an explosion in the presence of a source of ignition. Explosions are also possible from the ignition of fermentation gases.

The inside of these enclosures (and bucket elevators) are classed as Zone 11 by NZS 6101:1990 *Classification of hazardous areas, Pt. 2, Combustible dusts*. All electrical fittings inside this area should comply with the appropriate standard. Advice regarding the appropriate standard can be obtained from any certificated electrical inspector.

Because of the potential explosion hazard, any hot work such as welding should only be carried when the potential hazard has been removed. A hot work permit system such as that used in many factories may be used to safely manage work of this type.

Any conveying system used to transport potentially explosive finely-milled stock feeds, finely-milled grains or similar, should be designed with explosion protection. Bucket grain elevators used to convey wholegrain stock feeds or cereals should also be provided with explosion protection.

Silos, bins and tanks containing finely milled whole grain stock feeds or cereals should also be provided with explosion protection. Adequate explosion protection should be designed to the standard set out in the National Fire Protection Association document listed below.

FURTHER INFORMATION

Standards

National Fire Protection Association (USA): NFPA No. 68 *Explosion Venting Guide* 1978

NZS 6101:1990 *Classification of hazardous areas*
Pt. 2: *Combustible dusts*

OSH publications

Dust Explosions in Factories
Safety in Confined Spaces

1.24 Solar ultraviolet radiation (sunburn)

The ongoing depletion of the ozone layer places people who work outside at greater risk than ever of suffering skin cancers from exposure to solar ultraviolet radiation.

It is essential to isolate or minimise the effects on employees from exposure to solar ultraviolet radiation. This involves:

- Assessing the exposure;
- Detecting skin cancers early;
- Training and educating employees; and
- Using hats, sun screens and other methods to minimise exposure.

FURTHER INFORMATION

OSH publication

Guidance Notes for the Protection of Employees from Solar Ultraviolet Radiation

1.25 Training of employees

The employer or person in control of the place of work should ensure that no person carries out any work unless they have been instructed in the dangers associated with the work and the precautions to be taken in relation to these dangers.

Unless the employee has the skills to carry out the work without risk to safety or health, then the employer or person in control of the place of work should ensure that the employee is closely supervised by a person who does have the skills.

When training people to carry out work the following things should be explained:

- What the work involves;
- Correct work methods to be used;
- Dangers and how to avoid them;
- How the machine or process works;
- How to check and make adjustments prior to starting the machine or process;
- How to stop and start the machine or process;
- Limitations of the machine or process;
- Location and operation of other controls;
- Emergency procedures;

Legislation — Solar ultraviolet radiation

ACT.

General Duties of Employers

6. Employers to ensure safety of employees—Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to —

(a) Provide and maintain for employees a safe working environment; and

....

Sections 7 and 10 apply. They are reproduced at section 1.1.

Legislation — Training of employees

ACT.

Duties of Employers in Relation to Training and Supervision

13. Training and supervision—Every employer shall take all practicable steps to ensure that every employee who does work of any kind, or uses plant of any kind, or deals with a substance of any kind, in a place of work—

(a) Either—

(i) Has; or

(ii) Is so supervised, by a person who has such knowledge and experience of similar places, and work, plant, or substances of that kind, as to ensure that the employee's doing the work, using the plant, or dealing with the substance, is not likely to cause harm to the employee or other people; and

(b) Is adequately trained in the safe use of all plant, objects, substances, and protective clothing and equipment that the employee is or may be required to use or handle.

- Purpose of guards, other safety devices, and safe work practices; and
- Correct use and adjustment of guards.

It should be noted that with some operations and machinery, people may require additional training.

When training is complete, the trainee should be asked to explain and demonstrate their understanding.

Legislation — Woolshed safety

ACT

General Duties of Employers

6. Employers to ensure safety of employees—

Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to —

(a) Provide and maintain for employees a safe working environment; and

....

REGULATIONS

Regulations 66 and 67 apply. They are reproduced at section 2.1, Responsibilities of machinery designers, manufacturers and suppliers.

1.26 Woolshed safety

Access

Steps covered frost and ice have been known to cause serious injuries. The problem may be overcome by fitting chicken netting over the steps.

Doors should be easily opened and closed. Big sliding doors can be a problem if not easily moved.

Flooring and grating in the wool shed must be sound.

Non-slip surfaces are essential and the shearing board should not be varnished. Tongue and groove rimu makes a good floor. It is strong and slow wearing, provides good grip, and does not splinter. Chipboard, even when dry, is slippery and may break up with wear.

Weighted gates should have weights fitted in such a manner that the weights cannot freely swing about.

Machinery

The wool press must be in good working order. If electric, the wiring connections must not be loose or be otherwise incorrect.

It is advisable to bring the electric cable to electric press up through the floor. Cable from the ceiling can get caught on the box or the presser. Cables should not trail over the floor.

A rope should be firmly fixed above the press for the presser to hold onto while tramping the press.

“No tramp presses” should have guards and safety switches in good operating condition at all times. It may be preferable for the electric wiring on these machines to come in from above.

There should be a place to safely stow the capping skewer when it is not in use.

Shearing plant should be fixed properly to the wall. It should be wired properly with no loose wires and serviced at least every two years. Elbow protectors on the droppers should be in place.

Grinders should have guards fitted, and be placed in an area as far as practical from other shed operations and passing traffic.

Shearing handpieces

In New Zealand the traditional connection of the shearer's handpiece onto the down-tube has been a pin drive.

This has been superseded in recent years by the spline drive (also called a "worm drive"). Both the national contractor organisation, and Shearing Sport NZ have made these compulsory.

The spline drive has an important safety benefit if the shearer hits an ear tag or piece of wire, or the handpiece locks up for some reason.

This is because when operating with a spline drive, the handpiece usually unlocks from the gut before any serious damage occurs. Usually disengagement takes place instantly so the shearer does not lose grip on the handpiece.

With a pin drive, a lock-up will normally result in expensive breakages and possible loss of work through injury.

Although the spline drive disengages on impact in most cases, it cannot be guaranteed because of the wide variety of machines in use with different drive systems. To be sure of a fit, shearers should carry their own short gut and fit it into the machine before they start.

A full conversion kit is available from manufacturers, and comprises a short gut and worm drive shaft for the handpiece.

It may also be possible to convert by replacing the metal pin drive ends on the existing short guts plus new worm drive shafts for farmers' own handpieces.

Some farmers have provided spline drive equipment but shearers have refused to use it as it has required them to change a part in the back of their handpieces, while other shearers have brought their own equipment. (Most new handpieces now sold have the new part fitted as a standard item.)

It is recommended that shearers carry their own short gut.

Working conditions in wool sheds

Ventilation

Sheds must have windows that open and shut without being draughty. Air movement keeps the shed cool and provides sufficient oxygen to reduce the level of ammonia created by sheep. Care should be taken to avoid diesel fumes entering the workplace.

Lighting

Good light (with the correct daylight tubes over board and table) can greatly improve the quality of woolhandling.

REGULATION

4. Duties in respect of facilities at every place of work— (1) Every employer shall take all practicable steps to ensure—

- (a) That facilities of the kinds described in subclause (2) of this regulation are provided at every place of work under the control of that employer; and
 - (b) That any such facilities are suitable for the purpose for which they are to be used; and
 - (c) That any such facilities are provided in sufficient numbers; and
 - (d) That any such facilities are maintained in good order and condition; and
 - (e) That all employees have access to any such facilities in a way that is convenient to them.
- (2) The facilities referred to in subclause (1) of this regulation are—
- (a) Toilets;
 - (b) Hand-washing facilities;
 - (c) Means of leaving the place of work in an emergency;
 - (d) First-aid facilities;
 - (e) Facilities for lighting for the purposes of enabling employees to perform their work safely and to move safely about the place of work;
 - (f) Ventilation providing either fresh or purified air;
 - (g) Means for controlling humidity that arises from any work process or activity;
 - (h) Means for controlling atmospheric conditions, including air velocity, radiant heat, and temperature;

....

ACT

19. **Duties of employees** — Every employee shall take all practicable steps to ensure—

(a) The employee's safety while at work; and

....

Legislation — Working under loads

REGULATION

16. **Raised objects** — Every employer shall take all practicable steps to ensure, in relation to every place of work under the control of that employer, that, where any employee is under any thing that has been raised or lifted by any means to enable any work to be done, supports or other devices are so placed or used under the thing that it cannot drop or be lowered while the employee is under it.

....

Legislation — Workshop safety

ACT

Duties of Employers in Relation to Training and Supervision

13. **Training and supervision** — Every employer shall take all practicable steps to ensure that every employee who does work of any kind, or uses plant of any kind, or deals with a substance of any kind, in a place of work—

(a) Either—

(i) Has; or

Catching hazards

Protruding nails, screws, and bolts sticking out should be pulled out, screwed in or trimmed up.

Hazard of breast abscesses

Women working in woolsheds should protect themselves against breast abscesses.

The condition is caused by wool fibres, particularly short second cuts, penetrating the clothing and getting into the milk ducts and sebaceous glands, causing infections and abscess formation. Wet fleeces and greasy or dirty wool also seem to contribute to the problem.

The problem has become more commonplace because of the tendency for young women to go without a bra when working in a hot physical environment such as a woolshed.

One solution is to wear the right sort of bra. A specially-designed bra made of a material that stops the wool fibres penetrating is available. Other commonly used preventative measures include putting plastic wrap down the bra, and placing sticking plasters across the nipples.

1.27 Working under loads

Hydraulic lifting machinery and other lifting machinery which is used in agricultural work can fail suddenly, bringing elevated parts down on people, often with fatal results.

Where employees are required to work under something that has been raised or lifted (e.g. the bucket of a loader or the deck of a truck) then supports, props, or chocks, or other devices should be used to prevent the raised part falling on them.

Refer also to section 2.3, Hydraulic machinery.

FURTHER INFORMATION

OSH publication

Bulletin: *Safety Guide for Handling of Loose Materials*

1.28 Workshop safety

Because of their setting and through necessity, farmers often perform tasks normally done by a variety of skilled tradespeople. Farm workshops may therefore contain a range of hazardous tools and processes.

Because many of the skills used in the agricultural sector are self-taught, or tasks are performed only irregularly, the work is often carried out in an unsafe manner — often as a result of lack of knowledge of hazards.

Persons carrying out a variety of tasks in their farm workshops should ensure they are suitably trained. The skills needed should be obtained at suitable educational institutions or be taught by competent people.

FURTHER INFORMATION

OSH publications

Bulletin: *Safety Guide for Hammers Screwdrivers, Spanners, Wrenches, and Cold Chisels* (to be produced)

Bulletin: *Safety Hints for Operators of Abrasive Wheels* (to be produced)

Bulletin: *Safety Hints for Operators of Drilling Machines* (to be produced)

Bulletin: *Safety Hints for Users of Lathes* (to be produced)

1.29 Protective clothing and equipment

Where hazards cannot be fully controlled by elimination or isolation, then the employer should ensure that suitable protective clothing and equipment is provided. See section 1.14, Hazard identification and control.

Employers should also ensure that, where necessary, employees are protected from exposure to hazards through the use of suitable protective equipment. This means employers cannot ignore situations where employees are not using protective equipment.

There are special requirements placed on manufacturers of protective equipment which are specified by regulation.

(ii) Is so supervised, by a person who has such knowledge and experience of similar places, and work, plant, or substances of that kind, as to ensure that the employee's doing the work, using the plant, or dealing with the substance, is not likely to cause harm to the employee or other people; and

(b) Is adequately trained in the safe use of all plant, objects, substances, and protective clothing and equipment that the employee is or may be required to use or handle.

Legislation - Protective clothing and equipment

ACT

10. **Significant hazards to employees to be minimised, and employees to be protected, where elimination and isolation impracticable**

— (1) Where—

(a) There is a significant hazard to employees at work; and

(b) Either—

(i) There are no practicable steps that may be taken to eliminate it; or

(ii) All practicable steps to eliminate it have been taken, but it has not been eliminated; and

(c) Either—

(i) There are no practicable steps that may be taken to isolate it from the employees; or

(ii) All practicable steps to isolate it from the employees have been taken, but it has not been isolated,— the employer shall take the steps set out in subsection (2) of this section.

(2) The steps are —

(a) To take all practicable steps to minimise the likelihood that the hazard will be a cause or source of harm to the employees; and

(b) To ensure that there is provided for, accessible to, and used by the employees suitable clothing and equipment to protect them from any harm that may be caused by or may arise out of the hazard; and

.....

Duties of Employers in Relation to Training and Supervision

13. **Training and supervision** — Every employer shall take all practicable steps to ensure that every employee who does work of any kind, or uses plant of any kind, or deals with a substance of any kind, in a place of work—

(a) Either—

(i) Has; or

(ii) Is so supervised, by a person who has such knowledge and experience of similar places, and work, plant, or substances of that kind, as to ensure that the employee's doing the work, using the plant, or dealing with the substance, is not likely to cause harm to the employee or other people; and

(b) Is adequately trained in the safe use of all plant, objects, substances, and protective clothing and equipment that the employee is or may be required to use or handle.

REGULATIONS

Protective Clothing and Protective Equipment

68. Duties of designers of protective clothing and protective equipment—(1) Every designer of protective clothing or protective equipment shall take all practicable steps—

- (a) To design any protective clothing or protective equipment in accordance with applicable ergonomic principles; and
- (b) To design any protective clothing or protective equipment in such a way that, if the clothing or equipment is—
 - (i) Manufactured in accordance with the design; and
 - (ii) Used for the purpose for which it was designed; and
 - (iii) Installed, adjusted, used, cleaned, maintained, repaired, and dismantled in accordance with the designer's instructions,—

it will give adequate protection from the harm against which it is intended to protect.

(2) Every designer of protective clothing or protective equipment shall take all practicable steps to ensure that every manufacturer of the protective clothing or equipment receives comprehensive and comprehensible information, including, where relevant, detailed instructions, about—

- (a) The use for which the clothing or equipment has been designed; and
- (b) How to install, adjust, use, clean, maintain, repair, and dismantle the clothing or equipment in accordance with the designer's instructions; and
- (c) Any other matters about which the manufacturer needs information

from the designer in order to be able to carry out the manufacturer's duties under regulation 69 of these regulations.

69. Duties of manufacturers and suppliers of protective clothing and protective equipment—

(1) Every manufacturer and supplier of protective clothing or protective equipment shall take all practicable steps to ensure that any such clothing and equipment manufactured by that manufacturer or supplied by that supplier is designed in such a way that, if the clothing or equipment is—

- (a) Manufactured in accordance with the design; and
- (b) Used for the purpose for which it was designed; and
- (c) Installed, adjusted, used, cleaned, maintained, repaired, and dismantled in accordance with the designer's instructions,—

it will give adequate protection from the harm against which it is intended to protect.

(2) Every manufacturer and supplier of protective clothing or protective equipment shall take all practicable steps to ensure that any such clothing or equipment manufactured by that manufacturer or supplied by that supplier is so manufactured and tested that, if the clothing or equipment is—

- (a) Used for the purpose for which it was designed; and
- (b) Installed, adjusted, used, cleaned, maintained, repaired, and dismantled in accordance with the

designer's instructions,—

it will give adequate protection from the harm against which it is intended to protect.

(3) Every manufacturer and supplier of protective clothing or protective equipment shall take all practicable steps to ensure that any such clothing or equipment manufactured by that manufacturer or supplied by that supplier is, to the extent that is practicable, permanently marked with comprehensive and comprehensible information, including, where relevant, detailed instructions, about—

- (a) The use for which the clothing or equipment has been designed; and
- (b) How to install, adjust, use, clean, maintain, repair, and dismantle the clothing or equipment in accordance with the designer's instructions.

(4) Every manufacturer of protective clothing or equipment shall take all practicable steps to ensure that every supplier of any such clothing or equipment receives comprehensive and comprehensible information, including, where relevant, detailed instructions, about—

- (a) The use for which the clothing or equipment has been designed; and
- (b) How to install, adjust, use, clean, maintain, repair, and dismantle the clothing or equipment in accordance with the designer's instructions; and
- (c) Any other matters about which the supplier needs information from the manufacturer in order to be able to carry out any duty of the supplier under this regulation.

(5) Every supplier of protective clothing or protective equipment shall take all practicable steps to ensure that every purchaser or hirer of any such clothing or equipment receives comprehensive and comprehensible information, including, where relevant, detailed instructions, about—

- (a) The use for which the clothing or equipment has been designed; and
- (b) How to install, adjust, use, clean, maintain, repair, and dismantle the clothing or equipment in accordance with the designer's instructions; and
- (c) Any other matters about which the purchaser or hirer needs information from the supplier in order to be able to carry out any duty of the purchaser or hirer under the Act or these regulations.

ACT

General Duties of Employers

6. Employers to ensure safety of employees—

Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to —

(a) Provide and maintain for employees a safe working environment; and

....

REGULATIONS

Plant

66. Duties of designers of plant—(1) Every designer of plant shall take all practicable steps—

(a) To design any plant in accordance with applicable ergonomic principles, including (without limitation) any such principles in relation to the placement of any power control; and

(b) To design any plant in such a way that, if the plant is—

(i) Manufactured in accordance with the design; and

(ii) Used for the purpose for which it was designed; and (iii) installed, adjusted, used, cleaned, maintained, repaired, and dismantled in accordance with the designer's instructions,—

there is no likelihood that the plant will be a cause or source of harm to any person, or the likelihood that the plant will be such a cause or source of harm is minimised as far as is practicable.

(2) Every designer of plant shall take all practicable steps to ensure that every manufacturer of the plant receives comprehensive and comprehensible information, including, where relevant, detailed instructions, about—

(a) The use for which the plant has been designed; and

(b) How to install, adjust, use, clean, maintain, repair, and dismantle the plant in accordance with the designer's instructions; and

(c) Any other matters about which the manufacturer needs information from the designer in order to be able to carry out the manufacturer's duties under regulation 67 of these regulations.

67. Duties of manufacturers and suppliers of plant—(1) Every manufacturer and supplier of plant shall take all practicable steps to ensure that any plant manufactured by that manufacturer or supplied by that supplier is so designed that, if the plant is—

(a) Manufactured in accordance with the design; and

(b) Used for the purpose for which it was designed; and

(c) Installed, adjusted, used, cleaned, maintained, repaired, and dismantled in accordance with the designer's instructions, —

there is no likelihood that the plant will be a cause

2.1 Responsibilities of machinery designers, manufacturers and suppliers

Designers should take all practicable steps to ensure that when they design machinery and plant, to be used in a place of work, that it is designed so that it will not become a source of harm to any person involved in its manufacture, installation, use, maintenance, or repair.

They should provide adequate information and instructions to the manufacturer about:

- The use for which it was designed; and
- Its correct use, adjustment, installation, maintenance, repair and any other relevant matters.

Consideration should be given to the relevant ergonomic principles, so that potential manual handling and other hazards are eliminated at the design stage. Particular care should also be taken when placing any power control.

Manufacturers should take all practicable steps to ensure machinery and plant is designed, manufactured and tested so that its installation, use, maintenance, repair, dismantling and cleaning will not cause harm to any person.

Manufacturers, suppliers and sellers of machinery and plant should provide adequate information and instructions to any purchaser or hirer about:

- The use for which it was designed, manufactured and tested.
- Its correct use, adjustment, installation, maintenance, dismantling, repair and any other relevant matters.

Also refer to section 1.17, Noise.

FURTHER INFORMATION

OSH publications

Bulletin: *Guarding of Farm Transmission Machinery and Tractor Power Take-offs* (to be produced).

2.2 General precautions and maintenance of machinery

The following general rules should be followed when maintaining or working with machinery:

- Turn off all machinery power sources and isolate the machine before doing lubrication, adjustments, repairs or other maintenance on a machine;
- All operating and maintenance manuals should be read before and referred to where

using or servicing any piece of equipment. Follow the instructions contained in these manuals;

- People with long hair should have it securely fixed and confined close to the head when working with machinery;
- People should not operate machinery while wearing an apron or loose clothing.
- Avoid wearing rings and other forms of jewellery which can become caught in the machinery.

2.3 Hydraulic machinery

Controls

The direction of movement of controls should correspond logically to the motion of the moving parts.

Hydraulic components should only be used subject to manufacturers' specifications.

Controls should be of the “dead man” or “hold to run” type so that if the control is released, the motion of the machine ceases. The controls should also be positioned so that they can be easily operated.

Controls should also be clearly identifiable and guidance should be provided on actuating principles through appropriate labelling.

Maintenance

Caution should be taken with all hydraulic leaks. Small pin-prick fractures in hoses can lead to hydraulic fluid being injected under the skin, and this can lead to serious conditions where amputation or major surgery is required.

Appropriate over-pressure protection should be included in hydraulic systems.

Features such as supply shut off and drain valves should be provided in hydraulic systems to allow maintenance to be carried out safely.

Guarding against component failure

Because component failures may cause parts to move violently, hydraulic components and pipework need to be positioned away from areas where people may be at risk. As an alternative, these parts can be placed behind guards.

The decks of tip trucks, trailers, and the buckets of front-end loaders and similar machinery should not be left in the up position with the pump switched off, as there is a possibility that a line or valve failure could cause the elevated part to descend rapidly, crushing any person below. Many fatalities have occurred as a result of such failures.

or source of harm to any person, or the likelihood that the plant will be such a cause or source of harm is minimised as far as is practicable.

(2) Every manufacturer and supplier of plant shall take all practicable steps to ensure that any plant manufactured by that manufacturer or supplied by that supplier is so manufactured and tested that, if the plant is—

(a) Used for the purpose for which it was designed; and

(b) Installed, adjusted, used, cleaned, maintained, repaired, and dismantled in accordance with the designer's instructions,—

there is no likelihood that the plant will be a cause or source of harm to any person, or the likelihood that the plant will be such a cause or source of harm is minimised as far as is practicable.

(3) Every manufacturer of plant shall take all practicable steps to ensure that every supplier of the plant receives comprehensive and comprehensible information, including, where relevant, detailed instructions, about—

(a) The use for which the plant has been designed; and

(b) How to install, adjust, use, clean, maintain, repair, and dismantle the plant in accordance with the designer's instructions; and

(c) Any other matters about which the supplier needs information from the manufacturer in order to be able to carry out any duty of the supplier under this regulation.

(4) Every supplier of plant shall take all practicable steps to ensure that every purchaser or hirer of the plant receives comprehensive and comprehensible information, including, where relevant, detailed instructions, about—

(a) The use for which the plant has been designed; and

(b) How to install, adjust, use, clean, maintain, repair, and dismantle the plant in accordance with the designer's instructions; and

(c) Any other matters about which the purchaser or hirer needs information from the supplier in order to be able to carry out any duty of the purchaser or hirer under the Act or these regulations.

If it is necessary to work under such a structure, the part which may fall should be securely chocked.

2.4 Power take-off driveshafts and other shafts

Drive shafts are used on many agricultural machines, but are most often associated with transmitting power from tractor power take-offs to implements.

Clothing can become entangled extremely rapidly with unprotected drive shafts and universal joints. Such accidents usually result in serious harm or are fatal.

The power take-off shaft should be guarded over its full length by a guard which remains stationary while the shaft turns inside it.

Unless “safe by position”, line shafts and other drive shafts should be securely fenced.

FURTHER INFORMATION

OSH publication

Bulletin: *Guarding of Farm Transmission Machinery and Tractor Power Take-offs* (to be produced)

2.5 Transmission machinery

All practical steps should be taken to securely fence (guard) transmission machinery, unless it is “safe by position”.

Transmission machinery includes shafts, wheels, drums, pulleys, systems of fast and loose pulleys, gearing couplings, clutches, driving belts, chain rope, bands or other devices by which the motion of a prime mover is transmitted .

FURTHER INFORMATION

OSH publication

Guidelines for Guarding Principles and General Safety for Machinery

2.6 Augers

Augers are a full or part Archimedes screw on a central shaft. They may be open in design or enclosed in an outer case.

Shearing (cutting action) hazards exist between the auger screw and the casing, and in some cases between the auger and baffles.

Levelling augers often have small diameter shafts which also present entanglement hazards.

All drive mechanisms, auger infeeds and outfeeds should be fully guarded (securely fenced).

FURTHER INFORMATION

OSH publication

Bulletin: *The Guarding of Portable Grain Augers* (to be produced)

2.7 Balers (conventional)

The following rules should be followed when using conventional balers:

- The correct ground speed should be used to avoid overloading.
- Travel should be at the right speed for the terrain and conditions.
- The power take off should be guarded.
- The power take off should be shut off, the power source disengaged, and the momentum of the machine stopped before repairs or servicing are carried out.
- The baling twine should be properly spliced and threaded in the machine. Nothing should be pulled out of the knotter while the baler is in operation.
- All twine should be removed before re-feeding bales into the baler. This is because the baling twine is too strong to break if anyone gets entangled.
- Broken bales should never be fed by hand — a pitchfork should be used instead, or the bale left on the ground and driven into.

2.8 Balers (round)

The following rules should be followed when using round balers:

- The correct ground speed should be used to avoid overloading.
- Travel should be at the right speed for the terrain and conditions.
- The power take off should be guarded.
- The power take off should be shut off, the power source disengaged, and the momentum of the machine stopped before repairs or servicing are carried out.
- No one should stand near the rear of the baler when the bale is ejected. Large bales should never be ejected on slopes where they could roll.
- The mechanical gate safety lock should always be engaged before entering the open rear gate area. The hydraulic controls should not be relied on.
- The large springs and hydraulic hoses store a lot of energy, and the pressure or tension must be relieved before servicing. The manufacturer's maintenance and operating

instructions should be followed.

- Maintain the correct tension on drive belts. Excessive belt slippage may start a fire.

FURTHER INFORMATION

OSH publication

Guide to the Safe Handling, Transportation, and Stacking of Large Hay Bales

2.9 Chainsaws

Major hazards associated with chainsaws are: physical contact with the chain, exhaust fumes which contain carbon monoxide, the high noise levels generated by chainsaws, and vibration disease (or white finger).

The OSH booklet *A Guide to Safety with Chainsaws* discusses these hazards in detail and the practical means available to control these hazards. This booklet should be read by all people operating chainsaws.

The companion booklet *A Guide to Safety in Tree Felling and Crosscutting* discusses safe techniques for carrying out this work. The booklet also discusses problem areas that have been related to serious accidents and fatalities.

FURTHER INFORMATION

OSH publications

A Guide to Safety with Chainsaws

A Guide to Safety in Tree Felling and Crosscutting

2.10 Cherry pickers

The manufacturer's instructions should be referred to before any work is carried out with this type of machinery.

Employers should ensure that all staff using cherry pickers are trained in their safe operation, are advised as to the likely hazards associated with such machinery, and the precautions to be taken in relation to these hazards.

Employers have the responsibility of ensuring that if employees are not fully trained in the operation of cherry pickers, that they are supervised while operating them.

Where cherry pickers are used for fruit picking in orchards, the following points should be followed:

- Always park on level ground.
- Keep away from overhead power and telephone wires.
- Don't operate under roofs or in enclosed areas.

- Don't operate cherry picker on downgrades without hillside restraints or brake kits.
- Don't operate on slopes exceeding the manufacturer's specification.
- Don't travel on steep terrain with the cage in the fully elevated position.
- Don't use high engine revs when the cage is at full elevation.
- Ensure only suitably trained operators use a cherry picker.
- Ensure the platform is not driven into stationary objects and that objects are not pulled or lifted from the platform.
- Ensure the boom is fully lowered before dismounting.
- Maintain the cherry picker to the manufacturer's specifications.
- Keep below the safe working load (recommended by the manufacturer).
- Only have one person in the picker cage at any one time.
- Take precautions to prevent fires when refuelling.
- Use only standard picking bag and carrier attachments.

FURTHER INFORMATION

OSH publications

Approved Code of Practice for Power Operated Elevating Work Platforms

Bulletin: *Safe Operation of Cherry Pickers in Orchards* (to be produced)

2.11 Combine harvesters

The machinery hazards created by this machinery include those of conveyors (whether v-belt, flat belt, or chain and slat type), chain and sprocket transmissions, and numerous other dangerous parts. It is important that those operating this machinery are thoroughly trained. Regular maintenance of harvesting machines is also essential to its safe operation.

Preparation

Combine harvester operations should be planned well ahead of time. The proper tools, equipment and attachments should be made ready before harvest. A check should be made for transporting and field obstructions, as well as adequate turning space.

There should be no electrical supply lines which could in contact with the machine.

Operation and maintenance

Combine harvesters have a high centre of gravity, and to avoid accidents they should never be turned sharply or operated on steep slopes. The fuller the grain tank the higher the centre of gravity. (There should be no access to the grain tank when the engine is running.)

The manufacturer's maintenance and operating instructions should be followed. The header or other elevated parts should not be worked with until they are locked, latched and blocked on a level firm surface. Pinch points should be avoided.

All power must be disconnected before attempting to unplug any part of a harvester, and only the proper tools for the job should be used.

Before working on any hydraulic line, the power source of the hydraulic pump should be switched off.

Never work on the combine with the engine running, except where otherwise specified in the operator's manual. Never reach into or enter the bin while the combine is running.

To check tailings, use the inspection ports provided and do not try to collect a tailings sample by opening the door at the bottom of the tailings elevator. Disconnect the straw spreader or chopper before making performance checks at the back of the harvester.

To prevent possible fires, there should be routine checks for slipping belts. Bearings and other grease points should be lubricated regularly, and chaff cleaned from engine parts. These functions should only be performed when the engine has been switched off and the motion of the machine has ceased. If greasing is required while the machine is running, remote manifolds can be fitted to facilitate this.

Wherever practical, this machinery should be securely fenced to the standards set out in the OSH publications set out below.

FURTHER INFORMATION

OSH publications

Bulletin: *Guarding Farm Transmission Machinery and Tractor Power Take-offs* (to be produced)

Guarding of Belt Conveyors

Bulletin: *Guarding of Portable Grain Augers* (to be produced)

2.12 Conveyors

Conveyors of the belt or chain and slat type are used in many areas where items are packed or processed. This machinery should be guarded to the standard set out in the publication below.

FURTHER INFORMATION

OSH publication

Guarding of Belt Conveyors

2.13 Dag crushers

Hazards associated with the use of this type of machinery are:

- Noise;
 - Bacteria and other organisms harmful to health;
 - The motion of the flick roller;
 - The flails (and the objects that can be thrown by them when the wool exit door is opened);
- and
- The transmission machinery.

Conveyors and associated machinery which often feed and empty dag crushers can also be hazards, as can the manual handling problems associated with hand-fed dag crushers.

The dryers often used in conjunction with this type of machinery can cause fires and burns.

Transmission machinery can be safeguarded by the fitting of fixed guards constructed of materials such as sheet steel, wire mesh, wood or other rigid materials which cannot be easily damaged.

The infeed can be made “safe by position” by the fitting of chutes. Mechanically interlocked arrangements which allow dags into the crusher but prevent the access of people to the dangerous parts are also acceptable.

A well guarded conveyor or table can be also be used to prevent access to the infeed.

The outfeed can be made safe by the same methods used at the infeed. In addition, the outfeed area should be declared a “no go zone” because of the danger of stones and broken flails being ejected at speed.

The flick roller which is used to help the wool out of the dag crusher should either be guarded by the arrangements mentioned above or driven by a belt with considerable slippage so that should any person come into contact with the roller it will not continue to be driven. If this last method is used, the flick roller should be painted in contrasting colours so that people are alerted of the roller’s motion.

Access doors should be interlocked so that when they are opened the power is disconnected from the machine. Where the momentum of the machine is such that it continues to run after the power has been disconnected, devices should be fitted which lock the door until the motion of the machine has stopped or cause the motion of the machine to stop.

FURTHER INFORMATION

OSH publications

The Ergonomics of Machine Guarding

Bulletin: *The Guarding of Dag Crushers* (to be produced)

Bulletin: *Guarding Farm Transmission Machinery and Tractor Power Take-offs* (to be produced)

Guarding of Belt Conveyors

2.14 Disc harrows

The following rules should be observed when operating disc harrows:

- All adjustments should be made before getting on to the tractor;
- Place blocks or supports under elevated parts when working on discs;
- When working on the hydraulics, ensure that the power source has been disconnected before working on the hydraulic lines; and
- Beware of the hazards created by springs under tension when dismantling or maintaining the disc harrows.

2.15 Forage harvesters

Forage harvesters which have been used in silage making involving preservatives containing formic or acetic acids should not be washed down with hot water and detergents containing sodium hydroxide or other alkalis. Hazardous levels of carbon monoxide can be produced by such cleaning methods.

2.16 Front-end loaders

Operators should be trained in the safe operation of this machinery.

Maintenance should be carried out in accordance with the manufacturer's specifications. When carrying out maintenance it is important that the front tyres and highly stressed parts of the lifting mechanism are checked for cracks and excessive wear.

Critical points to consider when operating a front-end loader are:

- Back down slopes when carrying a load in the bucket.
- Carry the load with the bucket lowered. Raising the bucket reduces stability.
- Lower the bucket to ground when parking.
- Keep the speed down when carrying a load in the bucket.
- Never allow any person to work under a raised bucket.

2.17 Lifting gear

Slings, ropes chains and other lifting gear should be soundly constructed and maintained.

The type of lifting gear used should be appropriate for the load being lifted.

Lifting gear should be checked and inspected on a regular basis.

FURTHER INFORMATION

OSH publications

Safety Hints for Users of Lifting Gear (to be produced)

Register of Chains, Ropes, Lifting Tackle, and Lifting Machines

2.18 Mowers (tractor-mounted PTO driven)

Some rotary (flail) mowers are prone to the pivot bolts wearing and shearing. The pivot bolts are used to secure the cutting blades, and when they break these metal parts are ejected at speed. There is a risk of any person in the vicinity of the mower (including the driver) being hit by the flying metal parts.

To reduce the likelihood of breakages of this type occurring, only pivot bolts recommended by the manufacturer of the mower should be fitted. The bolts should regularly be checked and, if worn, replaced.

To reduce the likelihood of stones and other objects being thrown at people, a rubber or chain skirt should be fitted around the openings and perimeter of the mower.

The tractor power take-off and shaft should be guarded. See section 2.20, below.

FURTHER INFORMATION

OSH publication

Guarding of Farm Transmission Machinery and Tractor Power Take-offs (to be produced)

2.19 Self-feeding trailers

On some of these trailers there is a trapping point between the shredder and feed conveyor. To protect any person who may be injured in this part of the machine a release lever which disengages the conveyor should be fitted close to the feed out opening.

All other dangerous parts of the machinery should be securely fenced unless they are safe by position.

FURTHER INFORMATION

OSH publications

Bulletin: *Guarding of Farm Transmission Machinery and Tractor Power Take-offs* (to be produced)

2.20 Tractor power take-off stub shafts

When not in use, a power take off shaft should be guarded by a screw on cover. A protective shield should also be fitted to the tractor so that when the PTO drive is in place, the universal end of the driveshaft is guarded.

FURTHER INFORMATION

OSH publication

Bulletin: *Guarding of Farm Transmission Machinery and Tractor Power Take-offs* (to be produced)

2.21 Three- and four-wheeler all terrain vehicles (ATVs) and motorcycles

These vehicles should be maintained to the standard recommended by the manufacturer.

Training should be given to all riders, and those who do not have knowledge and experience with ATVs should be closely supervised by someone with the appropriate knowledge and experience.

A list of training providers is contained in the OSH information sheet *All Terrain Vehicle Safety — Rider Training*.

FURTHER INFORMATION

ATV-All Terrain Vehicle Skills Massey University-W Ritchie

OSH publication

Information sheet: *All Terrain Vehicle Safety — Rider Training*

Legislation - Tractor driver training and supervision

ACT

General Duties of Employers

6. Employers to ensure safety of employees—

Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to —

.....

(d) Ensure that while at work employees are not exposed to hazards arising out of the arrangement, disposal, manipulation, organisation, processing, storage, transport, working, or use of things—

(i) In their place of work; or

(ii) Near their place of work and under the employer's control; and

.....

8. **Significant hazards to employees to be eliminated if practicable** — Where there is a significant hazard to employees at work, the employer shall take all practicable steps to eliminate it.

2.22 Tractor driver training and supervision

Thorough training should be given to all employees who drive these vehicles.

As well as providing training, employers should ensure that those who do not have knowledge and experience driving tractors should be closely supervised by a person who does.

See also section 1.25, Training of employees.

FURTHER INFORMATION

OSH publication

Bulletin: *Guide to Safe Tractor Operation* (to be produced)

Other publications

Advanced Tractor Safety, ACC booklet

Tractor Basics, ACC booklet

2.23 Young people on tractors

Generally, children under the age of 15 years are not permitted by the regulations to drive a tractor or ride on a tractor when it is towing an implement. Nor are they permitted to ride on any implement. However, the regulations do allow, in special circumstances, children over the age of 12 to drive tractors, ride on tractors, or ride on implements used for agricultural work. The requirements are that:

- The tractor use is in connection with agricultural work; and
- It is solely for the purpose of instructing the child to drive the tractor for the purpose of agricultural work.

Children over the age of 12 are also permitted to drive or ride on a tractor or implement where they:

- Have been fully trained to operate the tractor and any implements attached to it;
- Are in a safe position on the tractor or implement; and
- Are the only child on the tractor.

2.24 Tractor safety frames

Regulations covering the design, manufacture, testing, fitting and repair of tractor safety frames were in draft form at the time of publication. The regulations will form part of the Health and Safety in Employment Regulations and will be accompanied by a separate set of guidelines in this series.

Safety frames approved by a designated testing institute will be required to be fitted to all tractors used, sold, or hired for use in agricultural operations (except for certain exempted operations). Tractors manufactured prior to 1 June 1967 will be exempt.

Tractors weighing less than 762 kg or more than 4 tonnes will be also be exempt.

FURTHER INFORMATION

Health and Safety in Employment (Tractor Safety Frames) Regulations — draft

OSH publication

Tractor Safety Frame Guidelines — draft

Legislation - Young people on tractors

REGULATIONS

60. Tractors and self-propelled mobile mechanical plant—(1) In this regulation,—

“Vehicle” means—

- (a) Any tractor; and
- (b) Any self-propelled mobile mechanical plant, other than a car, a truck, a motorcycle, or machinery that has a mass of 700 kilograms or less:

“Youth” means a person under the age of 15 years.

(2) Subject to regulation 61 of these regulations, every person in control of a place of work shall take all practicable steps to ensure that no youth, while in any place of work under the control of that person,—

- (a) Drives any vehicle; or
- (b) Rides upon any vehicle while it is drawing any implement; or
- (c) Rides upon any vehicle while any implement is attached to it; or
- (d) Rides upon any implement (not being a sled or trailer designed or adapted exclusively or principally for the carriage of passengers or of goods) drawn by or attached to any vehicle.

61. Exception for tractors —Regulation 60 (2) of these regulations does not apply where —

- (a) The youth is over the age of 12 years; and
- (b) A tractor is being used in connection with agricultural work; and
- (c) The youth—
 - (i) Has been fully trained in the safe operation of the tractor and the safe use of any implement that is being drawn by or is attached to the tractor; or
 - (ii) Is being trained in the safe operation of the tractor or the safe use of any implement that is being drawn by or is attached to the tractor.

2.25 Woodworking machinery

Practical methods for ensuring that this equipment is used safely are set out in the *Guidelines for the Safe Use of Woodworking Machinery* in this series.

FURTHER INFORMATION

OSH publication

Guidelines for the Safe Use of Woodworking Machinery

2.26 Wool presses (portable)

It is not recommended that block and tackle wool presses are used because of the serious injuries that have occurred with them over the years. It is, however, considered safe to use these presses if they are converted to a wind-up type press. This type of conversion can only be carried out if the boxes are in sound condition. Specific problems associated with this type of wool press include:

- The extreme effort required in initial lift, and the resulting strains that occur;
- Rope failure caused by chaffing on the pulleys;
- The high loading created by the block and tackle when in use means that often the roof beams or structure it is connected to is not strong enough to support it; and
- There are also heavy stresses placed on the boxes and hinges during normal operation. Many presses of this type have deteriorated to the point where sudden failures are likely.

It is also not recommended that double-action ratchet wool presses are used. The reasons for this recommendation are:

- Because of their age, many presses of this type have worn mechanisms which fail suddenly. When the ratchets let go the sudden release causes the lid to be propelled violently, injuring anyone in its path; and
- Because of the double-sized box, there are also manual handling problems associated with loading in the wool.

FURTHER INFORMATION

OSH publication

Bulletin: *Guarding of Wool Presses* (to be produced)

Legislation - Accommodation for clothing and changing clothing (day workers)

REGULATION

5. Duties in respect of facilities at certain places of work— (1) Every employer shall take all practicable steps to ensure—

- (a) That facilities of any of the kinds described in subclause (2) of this regulation are provided for employees at every place of work under the control of that employer where the work is of such a nature that those facilities are required; and
 - (b) That any such facilities are suitable for the purpose for which they are to be used; and
 - (c) That any such facilities are provided in sufficient numbers; and
 - (d) That any such facilities are maintained in good order and condition; and
 - (e) That all employees have access to any such facilities in a way that is convenient to them.
- (2) The facilities referred to in subclause (1) of this regulation are,—
- (a) Where the work is of such a nature that employees are reasonably likely to need facilities for washing the body, such facilities:
 - (b) Where the work is of such a nature that employees' clothing is reasonably likely to become contaminated or wet, a place in which to change clothes:
 - (c) Where the work is of such a nature that it is reasonably likely that employees will bring to the place of work clothes that will not be used at work, facilities for keeping such clothes clean and dry:

....

Legislation - Accommodation for employees and contractors residing on the farm

REGULATION

63. Accommodation and general facilities for agricultural employees—(1) The facilities to which this regulation applies are—

- (a) Toilets;
- (b) Washing facilities;
- (c) Sleeping facilities;
- (d) Lighting in all rooms;
- (e) Ventilation in all rooms;
- (f) Heating facilities;
- (g) Refrigeration facilities;
- (h) Rubbish disposal facilities;
- (i) Laundry facilities;
- (j) Furniture;
- (k) Drinking water.

(2) Every employer who employs any employee to carry out any agricultural work shall take all practicable steps—

- (a) To ensure that any such employee lives in accommodation—
 - (i) That is made of permanent materials; and
 - (ii) That is maintained in good order and condition; and
 - (iii) That contains or has access to facilities of the kinds to which this regulation applies; and

3.1 Accommodation for clothing and changing clothing (day workers)

Where it is practical to do so, employers should provide facilities to keep clothes not used at work clean and dry.

Again, where it is practical to do so, a suitable area should be made available for employees to change clothes that become dirty or wet during the course of the day's work.

FURTHER INFORMATION

OSH publication

Bulletin: *Facilities and Accommodation for Shearers and Agricultural Workers* (to be produced)

3.2 Accommodation for employees and contractors residing on the farm

Employers in agricultural places of work are required by the regulations to provide and maintain suitable accommodation for agricultural workers and forestry workers, when the employees and contractors are expected to reside on the farm property.

This requirement does not apply when employees continue to live in their normal place of residence away from the farm.

Caravans and tents are not suitable for accommodating agricultural employees and contractors.

Construction

Accommodation should be constructed of sound materials and be fully weatherproof.

New premises should comply with the Building Act 1991 and be sited well away from stock yards and other areas where flies and similar health issues could be a problem.

The roof should have gutters and downpipes which carry rainwater away from the building.

Interior walls of timber framed buildings should be suitably lined and finished. Joins in wall linings should be stopped or battened. Wall surfaces should be papered, painted or varnished.

Appropriate thermal insulation should also be provided.

Floors should be draughtproof and have a smooth surface that can be easily cleaned. If the floor is concrete then it should be covered with a material such as sheet vinyl flooring.

Ventilation openings in any foundation walls should be covered with mesh or otherwise screened to keep out vermin.

Minimum dimensions for sleeping quarters

Bedrooms should have the following minimum dimensions:

- For one person 6 m² of floor space, 2.4 m high in any part, 1.8 m wide in any part.
- For two persons 9 m² of floor space, 2.4 m high in any part, 2.1 m wide in any part.
- For more than two persons, 9 m² for the first two persons + 4.5 m² for every extra person — 2.4 m high in any part, 2.1 m wide in any part.

FURTHER INFORMATION

Building Act 1991

OSH publication

Bulletin: *Facilities and Accommodation for Shearers and Agricultural Workers* (to be produced)

3.3 First aid

First-aid facilities should be provided, maintained and be accessible to all employees involved in agricultural work. This may mean that first-aid kits need to be carried in vehicles.

Because some agricultural work is carried out in isolated areas, employers should ensure that all employees have a basic understanding of the principles of first aid.

First-aid kits should be stocked to the standard set out in the schedule to the Factories and Commercial Premises (First Aid) Regulations 1985.

FURTHER INFORMATION

Factories and Commercial Premises (First Aid) Regulations 1985

OSH publication

Guidance Notes on Providing First Aid Training

3.4 Facilities and amenities for employees and contractors residing on the farm

Employers in agricultural places of work are required to provide and maintain the following amenities and facilities for agricultural employees, forestry employees and contractors (who reside on the farm).

Cooking facilities

The cookhouse should be of sufficient size to allow room for food to be prepared. It is satisfactory for the cookhouse and the dining room to be contained in the same room.

(b) To ensure that any facilities of the kinds referred to in paragraphs (a) to (j) of subclause (1) of this regulation, in the accommodation or to which the accommodation has access, are—

- (i) Suitable for the purposes for which they are to be used; and
- (ii) Sufficient in number or amount; and
- (iii) Maintained in good order and condition; and
- (c) To ensure that any drinking water, in the accommodation or to which the accommodation has access, is—
 - (i) Wholesome; and
 - (ii) Sufficient in amount.

(3) An employer's duty under subclause (2) of this regulation applies to any accommodation, whether provided by the employer or the employee, and to any facilities, whether in accommodation provided by the employer or in accommodation provided by the employee.

Legislation - First aid

REGULATION

General Duties of Employers

4. Duties in respect of facilities at every place of work— (1) Every employer shall take all practicable steps to ensure—

- (a) That facilities of the kinds described in subclause (2) of this regulation are provided at every place of work under the control of that employer; and
- (b) That any such facilities are suitable for the purpose for which they are to be used; and
- (c) That any such facilities are provided in sufficient numbers; and
- (d) That any such facilities are maintained in good order and condition; and
- (e) That all employees have access to any such facilities in a way that is convenient to them.

(2) The facilities referred to in subclause (1) of this regulation are—

-
- (d) First-aid facilities;
-

Legislation - Facilities and amenities for employees and contractors residing on the farm

REGULATION

63. Accommodation and general facilities for agricultural employees— (1) The facilities to which this regulation applies are—

- (a) Toilets;
- (b) Washing facilities;
- (c) Sleeping facilities;
- (d) Lighting in all rooms;
- (e) Ventilation in all rooms;
- (f) Heating facilities;
- (g) Refrigeration facilities;
- (h) Rubbish disposal facilities;
- (i) Laundry facilities;

- (j) Furniture;
 - (k) Drinking water.
- (2) Every employer who employs any employee to carry out any agricultural work shall take all practicable steps—
- (a) To ensure that any such employee lives in accommodation—
 - (i) That is made of permanent materials; and
 - (ii) That is maintained in good order and condition; and
 - (iii) That contains or has access to facilities of the kinds to which this regulation applies; and
 - (b) To ensure that any facilities of the kinds referred to in paragraphs (a) to (j) of subclause (1) of this regulation, in the accommodation or to which the accommodation has access, are—
 - (i) Suitable for the purposes for which they are to be used; and
 - (ii) Sufficient in number or amount; and
 - (iii) Maintained in good order and condition; and
 - (c) To ensure that any drinking water, in the accommodation or to which the accommodation has access, is—
 - (i) Wholesome; and
 - (ii) Sufficient in amount.
- (3) An employer's duty under subclause (2) of this regulation applies to any accommodation, whether provided by the employer or the employee, and to any facilities, whether in accommodation provided by the employer or in accommodation provided by the employee.

64. Cooking facilities or meals for agricultural employees— Every employer who employs any employee to carry out any agricultural work and who provides accommodation for that employee shall take all practicable steps—

- (a) Either—
 - (i) To provide all meals to that employee; or
 - (ii) To provide cooking and eating facilities in the accommodation provided; and
- (b) To ensure that any facilities provided under paragraph (a) (ii) of this regulation are—
 - (i) Suitable for the purposes for which they are to be used; and
 - (ii) Sufficient in number or amount; and
 - (c) To maintain any facilities provided under paragraph (a) (ii) of this regulation in good order and condition.

....

The following requirements should be met:

- There should be at least 1.5 m of clear floor space on the working side of the cooking stove and sink bench;
- No person should be permitted to use the cookhouse as a bedroom;
- Adequate equipment, utensils and appliances should be provided for cooking purposes;
- Hot water should be provided at the sink;
- Adequate ventilation should be provided in the cookhouse and, as a guide, the window space should be at least equal to one tenth of the floor area, and no fewer than half the windows should be capable of being opened; and
- Sufficient cupboard space for storing non-perishable food, utensils and equipment should be provided.

Dining facilities and furniture

There should be sufficient room for employees to eat their meals in reasonable comfort. As a guide, the dining room should allow not less than 1.1 m² of floor space per person.

Tables and sufficient seating to accommodate all employees at one sitting should be provided. Forms with backs are acceptable, but these should not be attached to the floor, as this will impede cleaning.

Adequate equipment, utensils and appliances should be provided for dining purposes.

No person should be permitted to use the dining room as a bedroom.

Heating

Some form of heating — either electric, gas, open fire, coal range or space heater (and fuel) — should be provided in at least one room.

Laundry facilities

For laundering clothes, a washing machine should be provided.. In some circumstances two tubs and a copper may provide a satisfactory alternative.

Lighting and ventilation

All rooms should be adequately lit by natural and artificial lighting.

Artificial lighting should provide illumination of not less than 75 lux.

The area of windows throughout the accommodation be at least equal to one-tenth the floor area, and half of the windows should be capable of being opened.

If possible, rooms should be cross-ventilated.

Refrigeration arrangements

A refrigerator and freezer should be supplied. Where this is not practicable, a well constructed fly-proof meat safe is acceptable.

Rubbish disposal

Rubbish bins with tight-fitting lids should be provided for storing refuse. All refuse should be satisfactorily disposed of so that it does not become a health hazard.

Sanitary conveniences

These may be of the water closet, earth closet, bore hole privy or other type. A water closet toilet should be provided wherever it is practical to do so. When installing such conveniences, they should comply with the Building Act 1991.

Sleeping facilities and furniture

Bedrooms should be furnished with suitable beds and mattresses, and cupboards or wardrobes for hanging up clothes.

Washing facilities

Baths or showers should be provided.

It is recommended that each shower have an attached dressing area.

Each compartment (shower and dressing area) should have a floor area of at least 1 m²

If separate facilities are not provided for females, the doors should be capable of being locked.

Wash hand basins should also be provided and supplied with hot and cold water.

Water

Wholesome drinking water should be provided.

An adequate supply of hot water should be provided for showers, baths, hand basins, washing clothes, and cooking.

FURTHER INFORMATION

Building Act 1991

OSH publication

Bulletin: *Facilities and Accommodation for Shearers and Agricultural Workers* (to be produced)

3.5 Facilities in packing sheds and processing areas

The following should be provided for people working in buildings of this type:

Legislation - Facilities in packing sheds and processing areas

REGULATION

General Duties of Employers

4. Duties in respect of facilities at every place of work— (1) Every employer shall take all practicable steps to ensure—

- (a) That facilities of the kinds described in subclause (2) of this regulation are provided at every place of work under the control of that employer; and
 - (b) That any such facilities are suitable for the purpose for which they are to be used; and
 - (c) That any such facilities are provided in sufficient numbers; and
 - (d) That any such facilities are maintained in good order and condition; and
 - (e) That all employees have access to any such facilities in a way that is convenient to them.
- (2) The facilities referred to in subclause (1) of this regulation are—
- (a) Toilets;
 - (b) Hand-washing facilities;

- (c) Means of leaving the place of work in an emergency;
- (d) First-aid facilities;
- (e) Facilities for lighting for the purposes of enabling employees to perform their work safely and to move safely about the place of work;
- (f) Ventilation providing either fresh or purified air;
- (g) Means for controlling humidity that arises from any work process or activity;
- (h) Means for controlling atmospheric conditions, including air velocity, radiant heat, and temperature;
- (i) Facilities to enable any atmospheric contaminants to be controlled as closely as possible to their source;
- (j) Facilities for treating or carrying off any atmospheric contaminants for the purpose of minimising the likelihood that any atmospheric contaminants will be a cause or source of harm to any employee;
- (k) Facilities for employees to have meals during work hours in reasonable shelter and comfort, being facilities that are separate from any plant or materials used in the place of work and that are protected from any atmospheric contaminants, dirt, noise, or any other hazard produced by any work process.

Legislation - Meal facilities for day workers not residing on the farm

REGULATION

General Duties of Employers

4. Duties in respect of facilities at every place of work— (1) Every employer shall take all practicable steps to ensure—

- (a) That facilities of the kinds described in subclause (2) of this regulation are provided at every place of work under the control of that employer; and
 - (b) That any such facilities are suitable for the purpose for which they are to be used; and
 - (c) That any such facilities are provided in sufficient numbers; and
 - (d) That any such facilities are maintained in good order and condition; and
 - (e) That all employees have access to any such facilities in a way that is convenient to them.
- (2) The facilities referred to in subclause (1) of this regulation are—

....

- (k) Facilities for employees to have meals during work hours in reasonable shelter and comfort, being facilities that are separate from any plant or materials used in the place of work and that are protected from any atmospheric contaminants, dirt, noise, or any other hazard produced by any work process.

Atmospheric conditions and ventilation

Means of controlling atmospheric conditions in relation to temperature, air velocity and radiant heat should be provided where it is practical to do so. The humidity arising from any process should also be controlled where it is practical to do so.

There should be adequate ventilation, which includes the supply of fresh air and the removal of contaminants as close as possible to their source. Where toxic contaminants are discharged into the outside atmosphere, regional council requirements should be adhered to.

Drainage of floors

Where it is practical to do so, drainage of floors — which may become wet as a result of the processes being carried out in the place of work — should be provided. Regional council requirements should be adhered to if toxic or foul materials are to be disposed of down drains.

Emergency exit

Means of ensuring emergency exit from any building should be provided. A plan for coping with emergencies should be drawn up (in consultation with employees), and copies of the plan should be posted.

Lighting

Adequate lighting should be supplied for places of work and the areas that people should pass or go through as part of their work.

Seating arrangements

Seating should be provided for people doing work where it is practical to work while sitting.

Where practical, seating should also be provided for people who cannot sit while working so that they get the opportunity for rest during any breaks that may occur in their work.

FURTHER INFORMATION

OSH publications

Guidelines for the Provision of Facilities and General Safety in Commercial and Industrial Premises

Manual Handling — Guidelines for the Workplace

3.6 Meal facilities for day workers not residing on the farm

Unless meals are provided in the employer's own home, somewhere suitable should be provided for employees to have meals. Where the work takes employees away from the farm for activities such as mustering, and it is not practical to comply with this requirement, other arrangements should be made.

Employers in agricultural places of work are required to provide and maintain the following facilities for agricultural employees, forestry employees and contractors (who do not reside on the farm).

Eating facilities

The following eating facilities should be provided:

- A table and sufficient seating;
- A sink with an adequate supply of water and facilities for boiling water; and
- A suitable cupboard for storing food and materials.

Drinking water

Wholesome drinking water should be provided.

Sanitary conveniences

These may be of the water closet, earth closet, bore hole privy or other type. A water closet toilet should be provided wherever it is practical to do so. When installing such conveniences they should comply with the requirements of the Building Act 1991.

FURTHER INFORMATION

Building Act 1991

OSH publication

Bulletin: *Facilities and Accommodation for Shearers and Agricultural Workers* (to be produced)

3.7 Cleanliness

Accommodation should be kept in a clean and hygienic condition at all times.

3.8 Sickness

Where practical, an area should be set aside where employees can rest if they are feeling unwell.

If this is not practical, then other arrangements — such as sending the employee home — are satisfactory.

FURTHER INFORMATION

OSH publication

Guidelines for the Provision of Facilities and General Safety in Commercial and Industrial Premises

Legislation - Cleanliness

REGULATION

General Duties of Employers

9. Duty in respect of cleanliness of place of work—Every employer shall take all practicable steps to ensure that every place of work under the control of that employer is kept in a clean and hygienic state.

Legislation - Sickness

REGULATION

6. Duty in respect of indisposed employees—(1) Every employer shall take all practicable steps to ensure that any employee who, at any place of work under the control of that employer, feels indisposed may—

(a) Rest in facilities provided at the place of work, if the employer decides that that is the appropriate course of action in the circumstances; or
(b) Leave the place of work, if the employer decides that that is the appropriate course of action in the circumstances.

(2) Every employer shall take all practicable steps to ensure—

(a) That any facilities provided under subclause (1) (a) of this regulation are—
(i) Suitable for the purpose for which they are to be used; and
(ii) Provided in sufficient numbers; and
(iii) Maintained in good order and condition; and
(b) That all employees have access to any such facilities in a way that is convenient to them.

Appendix: Relevant OSH and other publications

A Guide to the Safe Use of Agrichemicals in Forestry

Agrichemicals A Guide to Farm Chemical Safety

NZS 8409:1995 Agrichemical users' code of practice

A Guide to Respirators and Breathing Apparatus

A Guide to Safety With Pesticides

A Guide to Safety with Chainsaws

A Guide to the Health and Safety in Employment Act 1992

Advanced Tractor Skills (ACC)

All Terrain Vehicle Safety — Rider Training Providers

ATV Skills (Bill Ritchie, Massey University)

Code of Practice for Power-operated Elevating Work Platforms

Code of Practice for Training Operators/Instructors of Powered Industrial Lift Trucks

Dangerous Parts of Machinery and its Guarding

Dust Explosions in Factories

Electro-sensitive Safety Systems

Electrical Interlocking of Machinery Guarding

The Ergonomics of Machine Guarding

Facilities and Accommodation for Shearers and Agricultural Workers

The Farmers and Growers Guide to the Health and Safety in Employment Act 1992

Grease Gun Safety

Guarding of Belt Conveyors

Guarding of Farm Transmission Machinery and Tractor Power Take-offs

Guarding of Handwheels and Flywheels (Bulletin to be produced)

The Guarding of Portable Grain Augers

Guide to Training and Supervising People (Bulletin to be produced)

Guide for the Safe Handling, Transportation, and Stacking of Large Hay Bales

How to Identify and Control Hazards: A Workbook

Legionellosis — What you should know if you work with soils, compost, or potting mix

Leptospirosis (Information sheet)

Leptospirosis in Pigs (Information sheet)

Manual Handling: A Workbook

Manual Handling: Guidelines for the Workplace

Register of Chains, Ropes, Lifting Tackle and Lifting Machines

AS/NZS 1716:1994 Respiratory protective devices

Safe Operation of Cherry Pickers in Orchards

Safety Code for Forest Operations: Part 1, Forest Establishment and Silviculture

Safety Hints for Operators of Abrasive Wheels

Safety Hints for Operators of Drilling Machines

Safety Hints for Users of Lifting Gear

Safety in Confined Spaces

Safety in Tree Felling and Crosscutting

AS/NZS 1716:1994 Selection, use and maintenance of respiratory protective devices

Safety Principles for Mincers

The Small Business Guide to the Health and Safety in Employment Act 1992

Special Techniques for Riding a Trike (ACC leaflet)

Tractor Skills (ACC)

Tyre Safety

Welding Safety

The following are available from any branch of the ACC;

ATV Skills booklet (B Ritchie, Massey University)

ATV Skills video (ACC)

ATV Skills 5 fact sheets (ACC)

Farm Bike Skills booklet (ACC)

Farm Bike Skills video (ACC)

Farm Bike Skills 3 fact sheets (ACC)

Maintenance of Farm Vehicles fact sheet (ACC)

Advanced Tractor Safety booklet (ACC)

Tractor Skills booklet (ACC)

Tractor Skills video (ACC)

Tractor Skills 4 fact sheets (ACC)

Albert's Choice tractor safety video (ACC)

The Fairy God Farmer's Holiday tractor safety video (ACC)

A Piece of the Pie tractor safety video (ACC)