

The Manufacturing Sector

MAY 2015



WORKSAFE
NEW ZEALAND | HAKI MAUMAU
AOTEAROA

**EVERYONE
WHO GOES
TO WORK
COMES
HOME
HEALTHY
AND SAFE**

SESSION OVERVIEW

- Manufacturing Workplace Injury Toll
- Best Practice Guidelines -Safe Use of Machinery
- Workplace Transport
- Noise
- Clean Air – Airborne Contaminants
- Health & Safety Reform Bill update

THE MANUFACTURING SECTOR

The sector is made up of a range of diverse industries with an estimated ¼ million workers.

Over the past 5 years there were a total of more than 126,000 claims to ACC and about 13,500 severe claims that kept workers away from work for five days or more.

Many manufacturing workers also suffer ill health and premature death from workplace exposures to noise, respiratory hazards and chemicals.

Total cost \$157.9m



DEATH & INJURY IN THE MANUFACTURING SECTOR

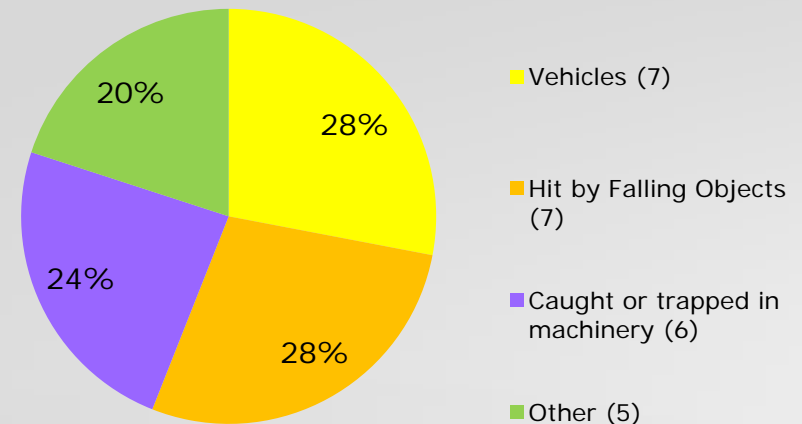
There were 38 workplace fatalities in the manufacturing sector 2008 – 2014

Forklifts and trucks were the main types of vehicles involved in injury & death

Forklifts alone prompted 80 serious harm notifications to WorkSafe NZ and four fatalities in 2013

Falling objects killed 7 of those people

Manufacturing Fatalities 2008-2014



MACHINERY GUIDANCE

- Best Practice Guidelines
- Safe use of Machinery Toolkit
- Individual factsheets on specific machines
 - Metal
 - Wood
 - Food
 - Plastics
 - Printing
 - General



SAFE USE OF MACHINERY

Have you...

Checked that all machinery is adequately guarded by:

- Carrying out a risk assessment and comparing it to current standards (involving a competent person in this process where necessary).
- Providing effective guards/devices in accordance with the type of machine controls (i.e. hydraulic, pneumatic, mechanical).
- Providing a safe system of work for cleaning, clearing and maintenance activities.

ASNZ4024 (2014 Safety of Machinery



1/
IDENTIFY

2/
ASSESS

3/
CONTROL

4/
DOCUMENT

5/
MONITOR

Worksafe NZ - The Way We Work

- Reactive
 - Response
 - Investigations
 - IRH Assessment
 - Duty Holder Review
- Proactive
 - National Focus Areas
 - Local Initiatives

WHAT OUR INSPECTORS LOOK FOR...



WHAT OUR INSPECTORS LOOK FOR...

Assessing your workplace

- Good housekeeping
- Machinery - well maintained and correctly safeguarded
- Operators trained, supervised and competent
- Safe procedures
 - for cleaning, clearing and maintenance of machines,
 - any other safety issues, such as work at height and transport
- There should also be good control of health hazards
- Hazard/risk assessments, and health surveillance records
- Maintenance and test records
- Written instructions provided to employees covering:
 - training and supervision for machinery;
 - Information on health hazards and how to control the risks;
 - how to use and care for PPE such as respirators, hear protection; and

WORKSAFE ASSESSMENTS

WORKSAFE
NEW ZEALAND 2017

Workplace transport – Assessment Tool

KEY	Description
ACOP	<i>Available – Approved Code of Practice (ACOP) (optional)</i> Operative prescriptive provisions on self-propelled mobile mechanical plant – Approved Code of Practice (ACOP)
FS	Carbon monoxide – <i>Health and Safety in Employment Regulations 1992</i> (HSE)
x	Health and Safety in the
+	Health and Safety in the

Elements for Inspection
1 Identify the hazards
2 Risk assessment
3 Controlling the transport risk
4 Controlling the transport risk

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Airborne contaminants – Assessment Tool

KEY	LEGISLATION, GUIDANCE AND STANDARDS
x	Health and Safety in Employment Act 1992
+	Health and Safety in Employment Regulations 1992
FS	Carbon monoxide – <i>Health and Safety in Employment Regulations 1992</i> (HSE)
x	Health and Safety in the
+	Health and Safety in the
ISO	International – <i>Approved Code of Practice (ACOP)</i> (HSE)
+	Health and Safety in the
+	Health and Safety in the

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Elements for Inspection

What WorkSafe Inspectors
will be assessing in your
workplace.

WORKPLACE TRANSPORT

Vehicles at work continue to be a major cause of fatal and major injuries.

Forklifts - 80 SH and 4 fatalities in 2013;

- 37% SH Manufacturing
- 24% SH Transport/Postal/Warehousing

What to do first?

To manage the risks from workplace transport effectively, you need to consider three key areas:

- Safe site
- Safe vehicle
- Safe driver



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SAFE SITE

Key Areas

- Management of layouts and traffic flows in a workplace is critical
- All staff trained/aware of pedestrian & vehicle movements



Things to consider

- Well marked road and pedestrian areas free from obstruction
- Separate entrances for people and plant and safe crossing points
- All staff trained and aware of people and traffic flows on site
- Have designated loading /unloading areas with temporary or permanent barriers and no go areas.
- Spotters to assist with vehicle positioning, trained

SAFE DRIVER

Key Areas

- Trained and competent to operate a vehicle safely
- Less experienced – need to be supervised and monitored



Things to consider

- Initial training and refresher courses by qualified providers
- Motion sensors and equipment monitors to log driver behaviours
- Only staff operate vehicles when authorised to do so
- Keep training records for all staff
- Be aware of issues that may impact drivers i.e. medical considerations
- Drivers are familiar with site rules and procedures.

SAFE VEHICLE

Key Areas

- Vehicles in a place of work must be safe for intended use
- Vehicle maintenance is critical



Things to consider

- Fuel source- Petrol, LPG Electric
- Visibility – running lights, mirrors, reversing alarms cameras
- Seat belts – use properly
- Pre start checks – recorded and logged with vehicle records
- Regular Maintenance – inspections and logging of checks

CASE STUDIES

Kiwi Fruit Packing House

- 3 companies fined a total of \$120,000
reparation \$20,000 over forklift accident

Concrete Manufacturing Company

- Concrete company fined \$70,000 and
reparation of \$60,000 over death of a worker

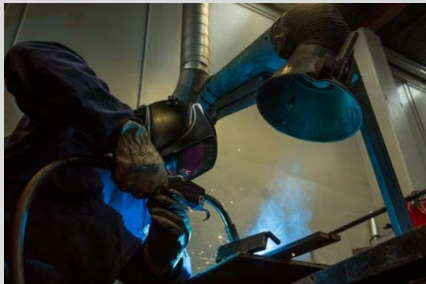
Transport Company

- Fined \$50,500, plus reparation of \$25,000

OCCUPATIONAL HEALTH – Hazards in Manufacturing

Our Focus

- Noise
- Airborne Contaminants



We need to do more

- Noise – management, controls etc., noise induced hearing loss
-
- Airborne Contaminants –
- e.g. welding fumes, wood dust, flour dust, formaldehyde, carbon monoxide, chemical fumes, solvents, biological agents.
- Any dust from any manufacturing processes

CLEAN AIR – TREAT HEALTH LIKE SAFETY

Airborne Contaminants

We need to do more about Airborne Contaminants

2010 – 137 deaths and 850 hospitalisations in the manufacturing sector due to exposure to harmful substances*

Dust, welding fumes and asbestos were the leading causes of death and hospitalisations

Poor ventilation has been identified as major factor in exposure to harmful welding and related fumes



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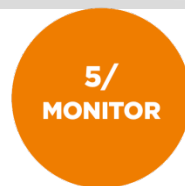
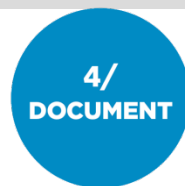
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CLEAN AIR – RESPIRATORY HAZARDS

Type	What it is	Examples
Dust	Tiny bits of solid material suspended in the air.	Wood dust in cabinet making or a craft woodworker using rimu; flour in a bakery; mould dust from bird droppings or compost.
Mist	Tiny droplets of liquid suspended in the air.	Acid mist at an electroplating shop; water spray near an air-conditioning unit.
Fume	Extremely fine metallic particles originating from hot processes.	Metal fume in a foundry or from welding process.
Vapour	Gas from an evaporating liquid.	Paint thinners during spray-coating; solvents from recently LOSP-treated timber; fibreglassing.
Gas		Carbon monoxide from the use of petrol-powered forklift used in a confined space. Methane from anaerobic decay of organic matter.



RESPIRATORY PROTECTIVE EQUIPMENT - RPE

Key Areas

- RPE - Get the “Right” Device
- RPE – Advice for employers & employees



Things to consider

Eliminate, Isolate, Minimise

RPE – correct device , fit tested, no facial hair, make sure it is worn.

Cleaning , storage & maintenance

Training and education

Lung function testing and respiratory questionnaire

Health Monitoring

CASE STUDIES

2014 - Hefty fine and reparations order for Tanning company

- Tanning company been fined \$73,000 and ordered to pay reparations totalling \$90,000 over a toxic gas incident that left four of its workers unconscious.

2015 – Company directors admits to being blasé about H&S

- Company's director admitted that maybe he had "got blasé about the health and safety" because of his experienced staff - fined \$33,750 after one of his employees was overcome with fumes when working in a confined space

NOISE

Report on Noise and Hearing Loss in the metal manufacturing industry prepared for ACC, Dec 2009

- 50% production workers exposed to above 85dB(A)
- 25% workers exposed to impulse noise levels exceeding 140dB(A) during every shift
- 25% of people experienced difficulties with hearing
- Hearing protection is now worn most of the time
- Disposable ear plugs almost always fitted badly leading to exposure



NOISE MANAGEMENT

Key Areas

Noise Management Plan
(source, path, receiver)

On Going Health Monitoring



Things to consider

- Have a noise control policy to eliminate or reduce noise level to below legal maximums
- Audiometric testing for all staff regularly exposed to excessive noise
- Information and training for all staff
- Select fit for purpose hearing protection
- Replace noisy machines – “Buy Quiet”
- Management of Noise in the Workplace 2002 – Approved Code of Practice

Health and Safety Reform Bill: What you need to know

FEBRUARY 2015



KEY ELEMENTS



www.worksafe.govt.nz

WHAT IS A PCBU?



A “person” conducting a business or undertaking

WHO ISN'T A PCBU?



Workers



Volunteer Associations



Officers



Home Owners

THE PCBU HOLDS THE PRIMARY DUTY OF CARE...

Because those who create risk...
Are responsible for managing it.

- The PCBU is required to look after the workers it employs or engages, as well as those workers influenced or directed by the PCBU
- The PCBU must also ensure others' health and safety is not put at risk from the conduct of the business or undertaking



OFFICERS' DUTIES



Due diligence

WORKERS ENGAGEMENT/PARTICIPATION

Engage with
workers

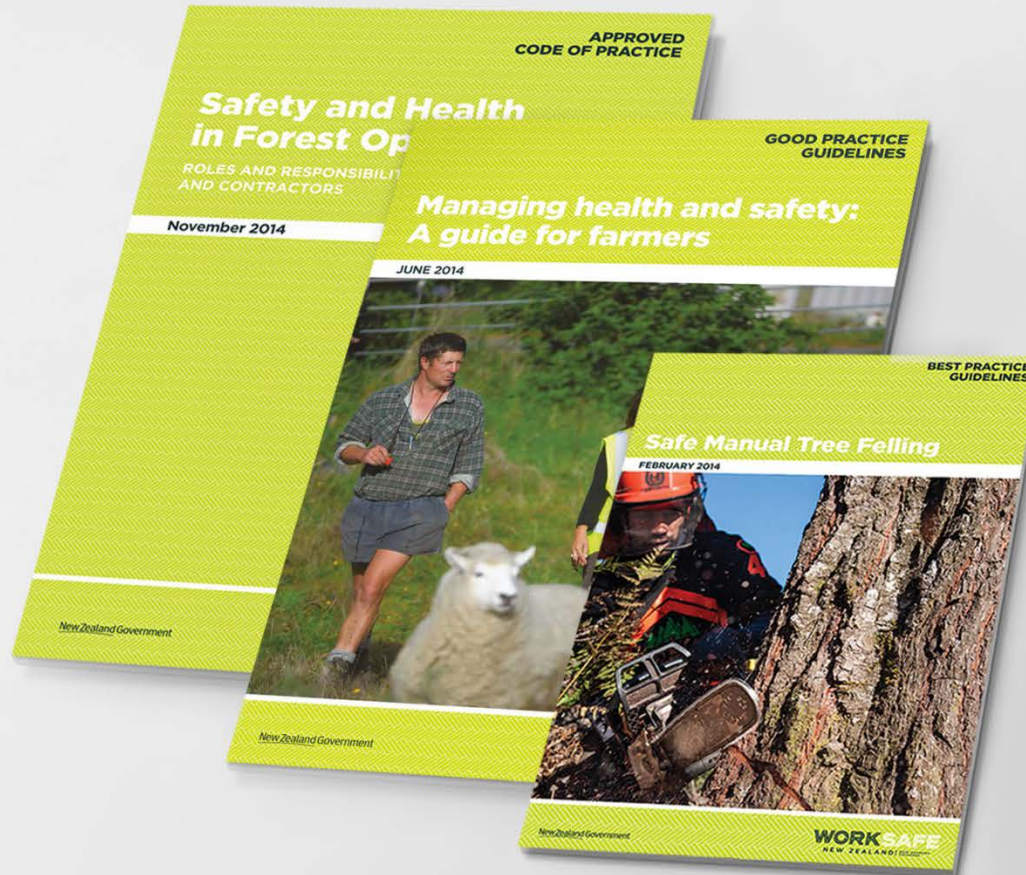
Right fit for
workplace



Reps, committees
or either

Reasonable chance
to participate

REGULATIONS AND GUIDANCE



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- > Energy Safety
- > Forestry
- > Hazardous Substances
- > High Hazards
- > Manufacturing



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Alerts

Health and safety reform bill



The new Health and Safety reform bill is on course to be passed in the second half of 2015. [Read more...](#)



SAFERFARMS.ORG.NZ

Latest news

[RSS](#)

- 1 Metal recycler fined after explosion reveals health and safety failings
- 2 Company to pay contractor \$80,000 after tree trunk fractures skull
- 3 Always identify workplace hazards
- 4 Hastings District Council to pay \$94,500 for child's death in park

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