Deloitte Access Economics

Regulatory Impact Statement for proposed Occupational Health and Safety Regulations 2017 and Equipment (Public Safety) Regulations 2017

June 2016

Contents

Gloss	ary	i
Forew	vord	i
Execu	tive su	ımmaryii
Part C	Dne – I	ntroduction and general analysis1
1	Introd	duction2
	1.1	Purpose2
	1.2	Process to remake the Regulations
	1.3	Aims of the review process
	1.4	Approach to preparing this RIS
	1.5	Structure of report9
2	Backg	round11
	2.1	Laws, regulations and codes11
	2.2	Information, Education and other programs15
	2.3	Compliance and enforcement
	2.4	Workers' compensation
	2.5	Stakeholder engagement17
3	Natur	e and extent of the problem19
	3.1	Making the case for government regulation20
	3.2	Nature and extent of the problem 20
	3.3	Need for government intervention
	3.4	Risk of non-intervention
	3.5	Objectives of government intervention
4	Aggre	gate analysis40
	4.1	Identification of feasible options
	4.2	Aggregate cost benefit analysis
	4.3	Preferred option (Option 2)
	4.4	Sensitivity analysis67
Part T	wo – A	Analysis by hazard area69
5	Introd	duction to hazard areas
6	Manu	al handling71
	6.1	Background71
	6.2	Nature and extent of the problem
	6.3	Objectives of regulation
	6.4	Identification and consideration of feasible options74
	6.5	Assessment of options

Liability limited by a scheme approved under Professional Standards Legislation.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity.

Please see www.deloitte.com/au/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

	6.6	Impact on small business and competition assessment	78
7	Noise	2	79
	7.1	Background	79
	7.2	Nature and extent of the problem	
	7.3	Objectives of regulation	82
	7.4	Identification and consideration of feasible options	
	7.5	Assessment of options	
	7.6	Impact on small business and competition assessment	87
8	Falls		
	8.1	Background	
	8.2	Nature and extent of the problem	
	8.3	Objectives of regulation	
	8.4	Identification and consideration of feasible options	
	8.5	Assessment of options	
	8.6	Impact on small business and competition assessment	
9	Confi	ined spaces	
5	9.1	Background	
	9.2	Nature and extent of the problem	
	9.3	Objectives of regulation	
	9.4	Identification and consideration of feasible options	
	9.4 9.5	Assessment of options	
	9.6	Impact on small business and competition assessment	
10			
10		·	
	10.1	Background	
	10.2	Nature and extent of the problem	
	10.3	Objectives of regulation	
	10.4	Identification and consideration of feasible options	
	10.5	Assessment of options	
	10.6	Impact on small business and competition assessment	
11	Equip	oment (public safety) Regulations	119
	11.1	Background	119
	11.2	Nature and extent of the problem	120
	11.3	Objectives of regulation	121
	11.4	Identification and consideration of feasible options	121
	11.5	Assessment of options	123
	11.6	Impact on small business and competition assessment	124
12		risk work	
	High		125
	High 12.1	Background	
	0		125
	12.1	Background	125 125
	12.1 12.2	Background Nature and extent of the problem	125 125 127

	12.6	Impact on small business and competition assessment	137
13	Haza	rdous substances, scheduled carcinogenic substances and lead	138
	13.1	Background	
	13.2	Nature and extent of the problem	
	13.3	Objectives of regulation	145
	13.4	Identification and consideration of feasible options	145
	13.5	Assessment of options	151
	13.6	Impact on small business and competition assessment	156
14	Asbe	stos	157
	14.1	Background	
	14.2	Nature and extent of the problem	158
	14.3	Objectives of regulation	
	14.4	Identification and consideration of feasible options	
	14.5	Assessment of options	
	14.6	Impact on small business and competition assessment	170
15	Cons	truction	171
	15.1	Background	
	15.2	Nature and extent of the problem	172
	15.3	Objectives of regulation	
	15.4	Identification and consideration of feasible options	
	15.5	Assessment of options	
	15.6	Impact on small business and competition assessment	
16	Majo	r hazard facilities	
	16.1	Background	
	16.2	Nature and extent of the problem	
	16.3	Objectives of regulation	
	16.4	Identification and consideration of feasible options	
	16.5	Assessment of options	
	16.6	Impact on small business and competition assessment	
17	Mine	S	
	17.1	Background	
	17.2	Nature and extent of the problem	
	17.3	Objectives of regulation	
	17.4	Identification and consideration of feasible options	
	17.5	Assessment of options	201
	17.6	Impact on small business and competition assessment	204
18	Cost	recovery and fee analysis	205
	18.1	Cost recovery considerations	
	18.2	Background	
	18.3	WorkSafe's recoverable costs	207
	18.4	Nature and extent of the problem	
	18.5	Options to achieve the objectives	216

Regulatory Impact Statement for proposed Occupational Health and Safety Regulations 2017 and Equipment (Public Safety) Regulations 2017

	18.6	Impacts on small business	225
	18.7	Competition assessment	227
	18.8	Implementation considerations and evaluation	. 227
19	Increa	ased national consistency option in detail	228
	19.1	Background	228
	19.2	Identification of feasible options	229
	19.3	Costs to employers of changes	235
Part T	hree –	Implementation, evaluation and consultation	244
20	Imple	mentation plan	245
	20.1	Finalise new regulations	. 245
	20.2	Implementing the Regulations	245
21	Evalua	ation strategy	247
	21.1	Objectives	. 247
	21.2	Baseline data	250
	21.3	Key performance indicators	251
	21.4	Methodology	252
	21.5	Consultation Plan	256
	21.6	Timelines	256
	21.7	Responsible agency	256
Apper	ndix A	 Detailed list of changes under Option 2 	258
Apper	ndix B	- Stakeholder consultation	271
Apper	ndix C	 Applicability of market based instruments 	281
Apper	ndix D	- Explanatory notes on comparative performance	283
	Limita	tion of our work	. 285

Charts

Chart 3.1 : Incidence of workplace injury and illness claims in Victoria, by industry, 2014-15	26
Chart 3.2 : Victorian employment by industry (ANZSIC), May 2015	31
Chart 3.3 : Historical and forecast change in employment by industry in Victoria	32
Chart 3.4 : Victorian workplace injuries and illnesses, 2004-05 to 2014-15	33
Chart 3.5 : Victorian workplace fatalities, 2004-05 to 2014-15	34
Chart 3.6 : Cost of injuries in Victorian workplaces, 2002-03 to 2014-15 (real \$2014-15)	34
Chart 3.7 : Composition of injury and illness claims, by mechanism of injury, 2014-15	35
Chart 3.8 : State and Territory comparison of serious injury and disease claims 2008-09 to 2013-14	36
Chart 4.1 : Projected incidence of workplace injuries and illnesses under the base case, including historical incidence from 1993-94 to 2014-15	49

Chart 4.2 : Projected incidence of workplace injuries and illnesses under Option 1, including historical incidence from 1993-94 to 2014-15 and comparison with the base case projection	
Chart 4.3 : Costs and benefits to society under the preferred option (2015 prices, real)	66
Chart 6.1 : Manual handling standard claims, 2007-08 to 2014-15	73
Chart 7.1 : Hearing loss standard claims, 2007-08 to 2014-15	81
Chart 10.1 : Plant-related standard claims, 2007-08 to 2014-15	109
Chart 13.1 : Hazardous substances standard claims, 2007-08 to 2014-15	142
Chart 14.1 : Asbestos standard claims, 2007-08 to 2013-14	160
Chart 15.1 : Construction standard claims, 2007-08 to 2014-15	175
Chart 17.1 : Mines standard claims, 2007-08 to 2014-15	197

Tables

Table 2.1 : Hazard specific regulations that applied prior to the OHS Regulations 2007	14
Table 3.1 : Assessing the level of risk	27
Table 3.2 : Nature and extent of harms, by OHS Regulation hazard area	28
Table 3.3 : Indicative analysis of likelihood and consequence by hazard area	29
Table 4.1 : Estimated costs under the base case (Net Present Value)	52
Table 4.2 : Projected breakdown of OHS compliance costs in 2017-18 under Option 1, b obligation type	•
Table 4.3 : Estimated costs under Option 1 (Net Present Value)	55
Table 4.4 Summary of average annual costs to employers under Option 2	56
Table 4.5 : Estimated costs under Option 2 (Net Present Value)	58
Table 4.6 Summary of average annual costs to employers under Option 3	59
Table 4.7 : Estimated costs under Option 3 (Net Present Value)	61
Table 4.8 : Estimated net benefits relative to the base case (Net Present Value)	62
Table 4.9 : Sensitivity analysis of net benefits under the preferred option	68
Table 6.1 : Break-even analysis – manual handling	78
Table 7.1 : Break-even analysis – noise	86
Table 8.1 : Break-even analysis – falls	94
Table 9.1 : Break-even analysis – confined spaces	104
Table 10.1 : Break-even analysis – plant	115
Table 12.1 : Break-even analysis – high risk work	132
Table 13.1 : Break-even analysis – hazardous substances and scheduled carcinogenic substances	153

Table 14.1 : Break-even analysis – asbestos 168
Table 15.1 : Break-even analysis – construction
Table 16.1 : Break-even analysis – MHFs 190
Table 17.1 : Break-even analysis – mines
Table 18.1 : Cost Base compared to WorkSafe's estimated costs for recoverable activities 209
Table 18.2 : Cost types
Table 18.3 : Number and share of High Risk Work licences processed automatically, 2014-15210
Table 18.4 : Unit costs for High Risk Work licences, 2017-18
Table 18.5 : Indicative estimated 2017-18 revenue and costs 215
Table 18.6 : Option 1 Maintain current fee levels, schedule of fees 218
Table 18.7 : Option 2 - estimated revenue and costs 219
Table 18.8 : Summary of fees219
Table 18.9 : Option 2 - Cost recovery and five year licence duration, schedule of fees
Table 18.10 : Representative sample of time taken to assess Major Hazard Facility licence applications 223
Table 18.11 : Who is impacted by fee changes
Table 18.12 : Impacts of proposed fees on competition 227
Table 21.1 : Claims and fatalities data by regulated hazard and industry
Table 21.2 : Approach to assessing the effectiveness of the regulations for selected hazards 254
Table 21.3 : Timelines for evaluation strategy

Figures and text boxes

Figure 1.1 : Relationship between inputs, types of analysis, options and levels of analysis undertaken for this RIS	8
Figure 2.1 : Enforcement of the Victorian OHS Regulatory System	.16
Figure 3.1 : Legislative and regulatory coverage of key work-related hazards and hazardous industries	.23
Box 3.1: The effect of long latency in relation to asbestos	. 25
Figure 3.2 : Indicative risk assessment by hazard and hazardous industry	.30
Figure 21.1 : Program logic framework for the OHS Regulations 2017	249

Glossary

Acronyms

ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ACD	Asbestos contaminated dust
AICS	Australian Inventory of Chemical Substances
ANZSIC	Australian and New Zealand Standard Industrial Classification
APVMA	Australian Pesticides and Veterinary Medicines Authority
ASEA	Asbestos Safety Eradication Agency
AS	Australian Standards
AWES	Australian Worker Exposure Study
CN	Non-slewing mobile crane operation
DHHS	Department of Health and Human Services
EPS	Equipment (Public Safety)
FDC	Fully developed claim cost
FOI	Freedom of Information
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HCDG	High Consequence Dangerous Goods
HRW	High risk work
HSIS	Hazardous Substances Information System
HWSA	Heads of Workplace Safety Authorities
IARC	International Agency for Research on Cancer
ISO	International Standards
MHF	Major hazard facility
MSD	Musculoskeletal disorders
MSDS	Material safety data sheets
NATA	National Association of Testing Authorities
NHEWS	National Hazard Exposure Worker Surveillance
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
NPV	Net present value
NRS	National Registration Scheme

NSW	New South Wales
OCPC	Office of Chief Parliamentary Counsel
OHS	Occupational Health and Safety
OHSAC	Occupational Health and Safety Advisory Committee
ONIHL	Occupational noise-induced hearing loss
PPE	Personal protective equipment
RCD	Residual-current device
RIS	Regulatory Impact Statement
SMS	Safety management system
SRG	Stakeholder reference group
SWMS	Safe work method statements
TOOCS	Type of Occurrence Classification System
VET	Vocational Education and Training
WA	Western Australia
WAC	WorkCover Advisory Committee
WBS	Web based survey
WHS	Work Health and Safety

Terms

AC Act	Accident Compensation Act 1985
ANZSIC industry	The Australian and New Zealand Standard Industrial
subdivision	Classification (ANZSIC) has been developed jointly by the
	Australian Bureau of Statistics and Statistics New Zealand for
	use in the compilation and analysis of industry statistics in
	Australia and New Zealand. The ANZSIC is a hierarchical
	classification with four levels, namely Divisions (the broadest
	level), Subdivisions, Groups and Classes (the finest level) ¹
Approved Criteria	An Australian hazardous substances classification and labelling
	system currently maintained by Safe Work Australia.
CI Card	Construction induction card
CN Licence	Non-slewing mobile crane licence
- ·	The law of a country or state based on custom, usage, and the
Common Law	decisions and opinions of law courts ²
Deloitte	Deloitte Access Economics
DG licence	Dogging licence
Fully developed claim cost	Refers to the Fully Developed Claim Costs, which are a
	combination of payments to date plus an estimate of future

Hazard	claims costs that will change over time A potential source of harm or injury; the potential to cause injury, illness or death
HRW licence	High risk work licence
Large business	Defined for the purposes of this report as an entity with 200 or more employees
Medium business	Defined for the purposes of this report as an entity with 20- 199 employees
OHS Act	Occupational Health and Safety Act 2004
OHS Amendment Regulations	Occupational Health and Safety Amendment Regulations 2014
Risk	The likelihood of a hazard causing harm to a person
SL Act	Subordinate Legislation Act 1994
Small business	Defined for the purposes of this report as an entity with 1-19 employees
Standardised claims	Are the claims that have exceeded the employer excess of ten days lost time or \$667 in medical and like expenses (figure correct as at 1 July 2015)
model WHS Regulations	Model Work Health and Safety Regulations 2011
WIRC Act	Workplace Injury Rehabilitation and Compensation Act 2013
WorkSafe	WorkSafe Victoria

Source: ¹ABS (2006) The Purpose of the ANZSIC, available online

http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/39C6552D10C40EB1CA257B9500133CFA?opendocu ment. ²Collins English Dictionary (2016) available online

http://www.collinsdictionary.com/dictionary/american/common-law

List of Stakeholders

AiGroup	Australian Industry Group
AMCA	Airconditioning and Mechanical Contractors' Association
AMIEU	Australasian Meat Industry Employees Union
AMWU	Australian Manufacturing Workers Union
ANMF	Australian Nursing and Midwifery Federation of Victoria
AWU	Australian Workers Union
CCF	Civil Contractors Federation
CFA	Country Fire Authority
CFMEU	Construction, Forestry, Mining & Energy Union Construction and General Division Victorian Branch
ETU	Electrical Trades Union
HACSU	Health & Community Services Union
HIA	Housing Industry Association

MBAV	Master Builders Association of Victoria
MCA	Minerals Council of Australia
MFESB	Metropolitan Fire and Emergency Services Board
MPMSAA	Master Plumbers & Mechanical Services Association of Australia
MUA	Maritime Union of Australia
NGMA	National Gypsum Miners Association
PACIA	Plastics and Chemicals Industries Association
PAV	Police Association of Victoria
PMAV	Prospectors and Miners Association of Victoria
PTEU	Plumbing Trades Employees Union
VACC	Victorian Automobile Chamber of Commerce
VCEA	Victorian Congress of Employer Associations
VECCI	Victorian Employers Chamber of Commerce and Industry
VSESA	Victoria State Emergency Service Authority
VTHC	Victorian Trades Hall Council
VicPol	Victoria Police

Foreword

This Regulatory Impact Statement (RIS) has been prepared with respect to:

- The proposed Occupational Health and Safety Regulations 2017 (OHS Regulations) to be made under the Occupational Health and Safety Act 2004 (OHS Act).
- The proposed Equipment (Public Safety) Regulations 2017 (EPS Regulations) to be made under the *Equipment (Public Safety) Act 1994* (EPS Act).

The RIS should be read in conjunction with the proposed OHS and EPS Regulations (proposed Regulations), which are provided as separate documents. Further detail on the methodology used in the RIS is provided in a separate technical volume also prepared by Deloitte Access Economics (Deloitte).

This RIS sets out the objectives of the proposed Regulations, explains their effect and assesses the nature and scope of the problem that the proposed Regulations seek to address. It also sets out the likely impacts (costs and benefits) and discusses other regulatory and non-regulatory alternatives.

How to respond to the proposed regulatory package

Employers, employees, other interested parties and members of the public are invited to make submissions responding to the RIS or the proposed Regulations.

The closing date for receipt of submissions is 9 September 2016.

WorkSafe Victoria (WorkSafe) has prepared templates to assist members of the public to provide comment on the proposed Regulations and the RIS. All documents, including the proposed Regulations and RIS, can be accessed through via the WorkSafe website: www.worksafe.vic.gov.au.

Alternatively, comments may be provided via email to the following email address: ohsregsreform@worksafe.vic.gov.au.

Hardcopy submissions will also be accepted and should be addressed to: Director, Legislation Policy and Information Services WorkSafe GPO Box 4306 Melbourne, VIC, 3000

For further assistance about the public comment process, or to obtain copies of the RIS and proposed Regulations, please call the WorkSafe Advisory Service on 1800 136 089 (toll free).

Executive summary

Key points:

Deloitte has been engaged by the Victorian Government to prepare this Regulatory Impact Statement (RIS) to support the review of the OHS Regulations and the EPS Regulations.

This RIS examines the case for regulation to address the problem of injuries, illnesses and fatalities sustained in Victorian workplaces.

A number of regulatory options have been considered to address this problem and analysis has been undertaken to estimate their overall impacts, including OHS outcomes, and compliance costs for the Victorian community. Three options, in addition to a base case (under which the Regulations lapse and are not replaced) have been considered:

Option 1: Remake of existing regulations

Option 2: Select improvement changes - A number of changes to improve the effectiveness of the regulations

Option 3: Increased national consistency - Select changes to increase consistency with the national model Work Health and Safety (WHS) Regulations 2011 (model WHS Regulations), including a number of changes that are also included in Option 2.

When considering regulation, the preferred option should have the highest net benefits to society as a whole. While all options modelled have positive net benefits when compared with the base case, Option 2 presents the highest net benefits for society, at \$11.81 billion compared with \$11.72 billion for Option 1 and \$2.16 billion for Option 3. The costs to business under Option 2 are approximately \$84 million less over ten years than under Option 1.

This RIS also provides an analysis of WorkSafe's licensing fees, and proposed options to introduce fees indexation and increase the majority of fees to improve cost recovery.

About this Regulatory Impact Statement

The OHS Regulations and EPS Regulations will expire in June 2017. The Regulations are required to be reviewed and remade by this date.

Under the *Subordinate Legislation Act 1994* (SL Act), a responsible Minister must ensure that a RIS is prepared for any proposed regulation to ensure regulation best serves the Victorian community. This RIS has been prepared by Deloitte in accordance with the

*Victorian Guide to Regulation*¹, which provides a best practice approach for analysing any proposed regulatory intervention. This RIS estimates the current impact of the OHS and EPS Regulations, and the extent of any associated health and safety benefits or time and cost savings resulting from any potential changes to the regulations for businesses in Victoria.

This RIS articulates the following key matters:

- The need to regulate occupational health and safety in Victoria
- Options for addressing the problem of health and safety risks in the workplace the costs and benefits of proposed options to address the problem, the preferred option and the rationale for choosing this option
- The proposed evaluation strategy for the remade regulations.

Stakeholder engagement

Deloitte undertook extensive stakeholder consultation during the development of this RIS including:

- 148 one-to-one meetings with employers across affected industries
- A web-based survey which received responses from 167 small, medium and large employers across all affected industries
- Two metropolitan focus group sessions with employee and employer representative bodies, and three regional focus group sessions with local businesses, employee and employer representatives.

This consultation was in addition to the separate and extensive stakeholder consultation undertaken by WorkSafe to support the comprehensive review of the Regulations.

WorkSafe established subject-specific stakeholder reference groups (SRGs) to support the review of hazard specific chapters within the regulations.

The groups are made up of both employee and employer representatives, drawn mainly from WorkSafe's established Health and Safety SRG. An additional SRG, made up of Government and Emergency Services representatives, was set up to review the Major Hazard Facilities Part of the OHS Regulations.

WorkSafe has undertaken a significant amount of stakeholder engagement throughout the review; with more than 220 hours of face to face engagement with stakeholders taking place. Sixty one topic specific SRG meetings have been held to date, and a total of 73 stakeholder organisations contacted to ensure they are aware of the review of the regulations and how they can have input.

A dedicated website was also established to provide SRG members with information about the progress of the review and regulatory change proposals throughout the life of the project.

¹ Government of Victoria, (2011), *Victorian Guide to Regulation*, Department of Treasury and Finance, Melbourne.

The regulation of occupational health and safety in Victoria

The Victorian Government is committed to reducing the number of work-related fatalities, injuries and diseases in the community. Victoria's occupational health and safety (OHS) regulatory regime seeks to achieve this aim through a range of mechanisms administered by WorkSafe:

- 1. Legislation (Acts., Regulations) and Compliance Codes
- 2. Safety information and education programs
- 3. Compliance and enforcement
- 4. The provision of adequate workers' compensation entitlements
- 5. Stakeholder engagement.

Victoria's OHS legislation is the OHS Act; the OHS Regulations; the EPS Act; the EPS Regulations as well as a number of other legislative and non-legislative instruments. These instruments have been established to ensure the safety of individuals in the workplace, and individuals using prescribed equipment in non-workplaces (e.g. hobby farms). Together, these instruments:

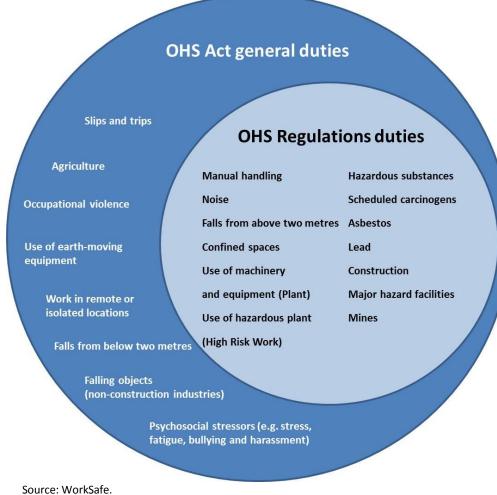
- Place obligations on employers and other specified individuals (e.g. operators of plant equipment, designers and manufacturers) to uphold a general duty of care with regard to the health and safety of employees and members of the public
- Specify technical requirements of plant, substances and structures used in workplaces
- Specify exposure limits to certain measurable hazards
- Specify process requirements to follow in the management of hazards
- Specify how employee consultation is to be arranged and conducted for health and safety matters arising in the workplace
- Provide specific information for employers and specified persons in complying with government regulation.

The OHS Act is the cornerstone of Victoria's OHS framework. It places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. For example, it includes a duty on employers to provide and maintain, so far as reasonably practicable, a working environment for employees that is safe and without risks to health.

The general nature of the duties in the OHS Act means that they cover all reasonably identifiable risks to health and safety in the workplace. In contrast the OHS Regulations focus on specific risks where regulation is considered the most effective and appropriate way to prescribe the method for controlling the risk, and where is lower level risk control measures (e.g. personal protective equipment or information) are not considered adequate.

Figure i below summarises the legislative coverage of key work related hazards and industries in Victoria.





Source: worksale.

The OHS Regulations

The OHS Regulations prescribe what an employer must do to comply with the duties set out in the OHS Act. These Regulations were made in 2007 and consolidated separate regulations that targeted specific hazards. The regulations that were consolidated and repealed in 2007 are detailed in Table 2.1.

The specific hazards and industries regulated by the OHS Regulations include:

- Physical hazards including manual handling, noise, prevention of falls, confined spaces, plant (machinery), high risk work (using scaffolding, operation of tower cranes, forklift trucks and boilers)
- Hazardous substances and materials including scheduled carcinogenic substances, asbestos (including asbestos removal work) and lead
- Hazardous industries including construction, major hazard facilities and mines.

As part of the initial stage of the review of the OHS and EPS Regulations, WorkSafe identified a number of policy change proposals which improved the workability of the

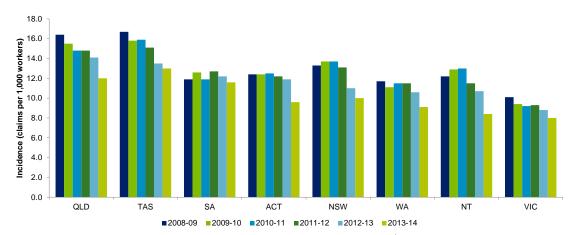
regulations and reduced compliance costs for businesses without reducing safety standards. This culminated in the Occupational Health and Safety Amendment Regulations 2014 (OHS Amendment Regulations) which came into effect on 1 July 2014.

The need for occupational health and safety regulations

Across Australia, there has been a decrease in the incidence of serious work-related injury claims across all states and territories in recent years.

While Victoria continues to be the safest Australian state or territory in which to work, injuries, illnesses and fatalities impose significant economic and social costs on the community. In 2014-15, for example, there were approximately 26,191 reported standard workers' compensation claims and 20 work-related fatalities.





Source: Safe Work Australia, Comparative Performance Monitoring Report 17th Edition. Notes: This chart should be considered in the context of several explanatory notes, these are provided in Appendix D – Explanatory notes.

It is challenging to fully estimate the impact of workplace injuries, illnesses and fatalities, especially intangible social costs. However Deloitte has attempted to measure the economic costs associated with such things as:

- Medical treatment and support services expenses including medication and hospitalisation
- Compensation for lost earnings and permanent impairment, including statutory benefits and common law settlements
- Pain and suffering to affected employees, their families and carers
- Productivity losses to the employer
- Funeral costs and ongoing compensation or dependent family members following a workplace fatality.

The cost of work-related injury and illness in Victoria has been estimated at \$14.6 billion in 2012-13.² This figure estimates both economic and 'human costs' of work-related injury and illness to the economy.

In summary, the costs associated with work-related illnesses, injuries and fatalities in Victoria are substantial, and present a problem that warrants government intervention.

The focus of this RIS is on addressing the problem of specific work-related hazards which have a high risk of injury or death, and are not considered to be suitably covered by the general duties of the OHS Act.

Equipment (Public Safety) Regulations

The EPS Regulations largely mirror the part of the OHS Regulations which deals with plant, and applies those provisions to plant that exists outside work places. The EPS Regulations provide for the health and safety of people when certain types of plant are used in non-workplaces such as tractors on hobby farms. The EPS Regulations are made under the EPS Act.

The EPS Act imposes duties on persons who design, manufacture, import, supply, own or use prescribed equipment and contains a compliance and enforcement regime to monitor and regulate the use of prescribed equipment.

The EPS Regulations have four main functions, which are to:

- Declare certain equipment to be prescribed equipment which will be covered by EPS duties
- Place duties on designers, manufacturers, importers and suppliers of that equipment in order to provide for the health and safety of people engaging with the equipment
- Specify requirements relating to notification of prescribed equipment
- Specify incident notification requirements.

The specific problem to be addressed by the EPS Regulations and consideration of feasible regulatory options are detailed further in Chapter 11.

Options for addressing the problem of health and safety risks through regulations

During the development of this RIS, Deloitte considered a broad range of regulatory options to reduce the incidence of work-related injuries, illnesses and fatalities through approaches that are appropriate, proportionate and workable. To meet the RIS requirements set out in the *Victorian Guide to Regulation* a range of options were analysed:

 Base case – whereby the general duties and other obligations under the OHS Act and EPS Act continue to apply but the OHS and EPS Regulations are allowed to expire and are not replaced

² Safe Work Australia, (2015), *The cost of work-related injury and illness for Australian employers, workers and the community: 2012-13*, Canberra

- Remake existing regulations no changes to the OHS and EPS Regulations
- Select improvement changes a number of changes to improve the effectiveness of the regulations informed by the guiding principles of WorkSafe's regulatory review and stakeholder consultation
- Increased national consistency select changes to increase consistency with the national model WHS Regulations.

The analysis in this RIS represents, to our knowledge, the most comprehensive analysis of the costs and benefits of OHS regulation undertaken in Australia. Nevertheless, it has been necessary to make a range of assumptions in undertaking the analysis. A list of key assumptions is included in Chapter 4.

A number of other options were considered but not ultimately pursued in this RIS. More information on these options is included in Chapter 4.

Assessing the options

The base case

The base case is defined as the scenario in which the OHS and EPS Regulations lapse in June 2017 and are not re-made, and the OHS Act and EPS Act continue to apply, providing general duties to address health and safety risks in the workplace.

It is important to note that the Victorian Government is not proposing to allow the OHS Regulations to expire in 2017 without a replacement regulatory regime. Rather, this scenario has been developed as a point of comparison for assessing the costs and benefits under the alternative options. This is standard practice when preparing a RIS for expiring regulations.

It is also worth noting that the costs and benefits in this scenario are difficult to measure, because the base case scenario is not actually observable. As part of Deloitte's stakeholder consultation process, information was sought on the costs imposed on employers by the OHS and EPS Regulations separate to the costs imposed by the OHS and EPS Act. Stakeholders provided estimates of the relative costs of compliance, however due to the nature of the scenario this was challenging to accurately quantify.

Similarly, separating the benefits associated with the OHS and EPS Regulations (in terms of reduced fatalities, injuries and illnesses) from the benefits associated with the OHS and EPS Acts, was also challenging and the modelling has quantified these benefits using a range of assumptions. It was assumed that if the OHS and EPS Regulations lapsed and were not remade in any form, work-related injuries, illnesses and fatalities would gradually increase above current levels, resulting in increased costs to the Victorian community. In estimating the extent to which these work-related injuries, illnesses and fatalities would increase, it was assumed that the average annual rate of decline experienced over the period from 1993-94 to 2014-15 would be reversed and that injuries, illnesses and fatalities would increase at the same average annual rate over the ten-year period of the analysis.

While considerable effort has been made to accurately estimate the dollar value of costs and benefits of the options, numbers presented in this report must be regarded as illustrative due to the theoretical nature of some costs and benefits. Nevertheless, we believe the methodology adopted here is sufficiently robust such that the relative cost of the various options is sound.

In undertaking this analysis, adjustments were made to account for changes in industry composition and workforce over time.

Costs for the base case (as with other options) were separated into three categories:

- Costs to society (including injured workers)
- Costs to employers
- Costs to government.

A summary of costs under the base case is provided below.

Table ii: Estimated costs under the base case (Net Present Value)

	Cost type	NPV (\$ million)
Society	Costs of workplace injuries and illnesses	\$127,118
	Costs of workplace fatalities	\$844
Business	Costs of OHS obligations (including OHS Act)	\$102,233
	Costs of legal advice	\$4,054
Government	Cost of administering OHS legislation	\$1,010

Source: Deloitte Access Economics analysis.

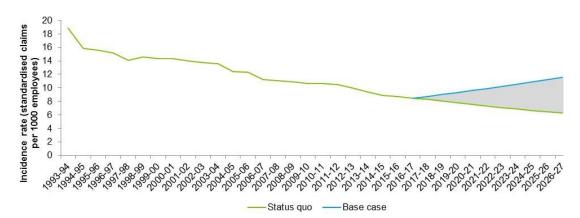
Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

Option 1 – Remake existing regulations

Under this option, the existing regulations would be re-made in their current form. This would effectively mean the continuation of the OHS and EPS Regulations for another ten years.

Under this scenario, it has been assumed that the slight downward trend in workplace injuries, illnesses and fatalities experienced over the last decade would continue into the future. In estimating the extent of this decrease, it was also assumed that the average annual rate of decline experienced over the period from 2005-06 to 2014-15 would continue over the ten year period of the analysis. This projected incidence of injuries and illnesses is shown below, along with the historical incidence data and a comparison with the base case projection. Note that the difference between the two lines from 2017-18 onwards represents the estimated number of avoided injuries and illnesses under Option 1 relative to the base case.





Source: WorkSafe data; ABS, *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015; Deloitte Access Economics base case projections for the period 2015-16 to 2026-27 (approach outlined above).

The cost to society of the projected decrease in of injury and illness compensation claims was calculated based on the average fully developed cost of a claim and associated indirect costs using an approach consistent with the base case. By applying these estimates to the projected decrease in the number of incidents, the total reduction in costs to society under Option 1 was estimated. The cost of fatalities was estimated using a similar approach.

If the OHS Regulations were re-made in their current form, employers would continue to face costs of complying with the OHS Regulations, in addition to the cost of complying with the OHS Act.

Estimates of total OHS compliance costs were gathered by Deloitte through a web-based survey and one-to-one interviews. As discussed above, in gathering these estimates, participating businesses were asked to provide an estimate of the costs of complying with the current regulations and the extent to which those costs would be lower in the absence of the OHS Regulations. This data was used to estimate the cost of meeting requirements under both the OHS Act and OHS Regulations under Option 1. On the basis of the data collected, the total estimated cost under Option 1 is approximately \$15 billion in 2017-18 and \$128 billion in net present value terms.³ The majority of compliance costs stem from hazard identification and risk control activities and the provision of information, instruction and training to employees. This consultation suggested that only a small proportion of these costs (20%) are attributable to the OHS Regulations.

³ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

Table iii: Projected breakdown of OHS compliance costs in 2017-18 under Option 1, byobligation type

	Act (\$ millions)	Regulations (\$ millions)	Total (\$ millions)
Hazard identification and risk control	\$6,116	\$865	\$6,982
Provision of information, instruction and training	\$3,277	\$361	\$3,638
Atmospheric monitoring, testing and health surveillance	\$897	\$128	\$1,025
Record keeping	\$1,764	\$262	\$2,026
Notifications	\$0	\$225	\$225
Registrations	\$0	\$311	\$311
Licensing	\$0	\$890	\$890
Total	\$12,054	\$3,043	\$15,097
% Total	80%	20%	

Source: Deloitte Access Economics analysis.

A summary of costs under Option 1, and the net benefits compared to the base case, is provided in Table iv.

	Cost type	NPV (\$ million)	Benefits compared to base case NPV (\$ million)
Society	Costs of workplace injuries and illnesses	\$94,075	\$33,043
	Costs of workplace fatalities	\$391	\$453
Business	Costs of OHS obligations (including OHS Act)	\$128,059	-\$25,826
	Costs of legal advice	\$0	\$4,054
Government	Cost of administering OHS Legislation	\$1,010	\$0
	Total		\$11,724

Table iv: Estimated costs under Option 1 (Net Present Value)

Source: Deloitte Access Economics analysis.

Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

Option 2 - Select improvement changes

Under Option 2, the existing regulations would be re-made but with amendments in select areas to improve health and safety outcomes for employees, reduce costs for businesses without reducing safety standards; align with areas of greatest risk; deliver a proportionate response and streamline and modernise the regulations. The proposed changes under this option were developed by WorkSafe and have been informed by extensive stakeholder consultation. A wide range of changes are proposed, across most of the hazard areas covered by the OHS Regulations including:

- Allow only GHS classification and labelling of chemicals
- Reduce MSDS review requirements
- Remove the requirement for a written risk control plan for noise where a higher order control is delayed for six months
- Make changes to the trigger for audiological exams
- Clarify the legislative requirements for the prevention of falls
- Make changes to the requirements for employers to retain confined space entry permits
- Clarify the requirements for operational stop and emergency stop controls
- Reduce the time frame to retain some records from ten to seven years
- Remove the design registration requirements applying to the supporting structure of tower cranes and replace with specific requirements for design
- Allow high risk work licence holders to continue to work while their renewal application is assessed
- Make changes for licences for dogging, reach stackers, bridge and gantry cranes, pallet trucks and boiler operation
- Incorporate the Dangerous Goods Asbestos Order 2007 into the regulations
- Remove and clarify requirements for Asbestos Class A and Class B licence holders
- Allow contractors assist in the removal of asbestos
- Introduce a requirement for employers to develop emergency procedures where there is a risk of persons being engulfed by soil or other material
- Change the Safety Case requirements for Major Hazard Facilities
- Amend the factors to be considered when identifying a mining hazard
- Simplify the mine communication requirements.

The changes are outlined in detail in Part Two of this report under each of the hazard-specific chapters and in Appendix A.

Although the proposed changes under Option 2 are likely to result in reduced injuries, illnesses and fatalities, it was not possible to estimate the extent of such changes with any degree of accuracy. Accordingly, the benefits of avoided injuries, illnesses and fatalities under Option 2 are assumed to be the same as Option 1 in the cost benefit analysis. However, a qualitative assessment of safety benefits under Option 2 has been undertaken and is included in Part Two.

If the OHS Regulations were re-made with the proposed changes detailed in Option 2, employers would continue to face costs of complying with the OHS Regulations, in addition to the cost of complying with the OHS Act. However, costs for some employers would change depending on the extent to which the proposed changes apply to an employer's particular circumstances. Estimates of the impact of the proposed changes on compliance costs were gathered by Deloitte through the one-to-one interviews. This included investigation of any initial once-off costs and/or savings associated with a proposed changes and any subsequent ongoing costs and/or savings. A summary of the proposed changes that have costs and/or savings is provided below. Further detail on proposed changes, including those that were found to have no cost impact is provided in Chapter 4. In general the incremental costs and savings associated with Option 2 are very small compared to the existing costs of the OHS Regulations.

Proposed change	Annual average cost (2015\$)	No. businesses / licences	Total cost (2015\$)
Hazardous Substances			
Allow only GHS classification and labelling of chemicals	\$977	65	\$63,373
Reduce MSDS review requirements	-\$5,321	316	-\$1,679,587
High risk work			
Boilers (cost to intermediate licence holders)	\$1,435	247	\$354,445
Boilers (saving to intermediate holders)	-\$60	247	-\$14,820
Boilers (renewal saving to intermediate holders)	-60	444	-\$26,676
Reach stackers (saving to CN licensees)	-\$3,138	533	-\$1,672,083
Reach stackers (cost to exemption holders)	\$1,450	132	\$191,400
Bridge and gantry and vehicle loading cranes	-\$323	11,060	-\$3,572,380
Confined spaces			
Entry permit requirements	-\$25	1,320	-\$33,000
Mines			
Simplified mine communication requirements	-\$57,099	50	-\$2,854,940
Major hazard facilities			
Change SMS requirements	-\$2,357	13	-\$29,854
Updating safety cases	-\$3,752	6	-\$23,761
Demographic requirements for safety cases	-\$28	38	-\$1,064
Provide emergency plans to municipal councils	\$1,708	25	\$43,262
Inclusion of seismic data in safety cases	\$2,385	13	\$30,207
Protection of emergency services personnel	\$ 8,189	29	\$233,378
Total			-\$8,992,099

Table v: Summary of annual average costs to employers under Option 2

Source: Deloitte Access Economics Analysis of one-to-one interview and ABS data (see Part Two of this report for details).

Notes: Savings are represented as negative costs. Multiplication of annual average cost and number of businesses/licences may differ due to rounding. Changes with no material impact to costs or where costs have not been quantified are not included in the table.

On the basis of the above estimates, the total estimated cost under Option 2 of meeting obligations under the OHS Act and OHS Regulations is approximately \$128 billion in net present value terms.⁴ Note that this is almost identical to the estimated cost under Option 1

⁴ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

as the estimated costs of the proposed changes are similar to the estimated savings, with the net result being approximately \$84 million less in net present value terms.⁵

	Cost type	NPV (\$ million)	Benefits compared to base case NPV (\$ million)
Society	Costs of workplace injuries and illnesses	\$94,075	\$33,043
	Costs of workplace fatalities	\$391	\$453
Business	Costs of OHS obligations (including OHS Act)	\$127,975	-\$25,742
	Costs of legal advice	\$0	\$4,054
Government	Cost of administering OHS legislation	\$1,010	\$0
	Total		\$11,808

Table vi: Estimated costs under Option 2 (Net Present Value)

Source: Deloitte Access Economics analysis.

Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

Option 3 - Increased national consistency

Under Option 3, the existing OHS and EPS Regulations would be re-made but with amendments in select areas to increase consistency with the model WHS Regulations. The proposed changes under this option were developed by WorkSafe and have also been informed through stakeholder consultation. The proposals include a number of changes which are included under Option 2, plus a number of additional changes covering the following areas:

- Broaden the scope of fall prevention regulations
- Make the plant design registration process an approval scheme
- Prescribe an explicit duty to have and test emergency plans
- Prescribe an explicit duty to provide an adequate level of first aid
- Prescribe a requirement to control the risk of falling objects
- Introduce a general requirement concerning the effective communication for remote or isolated workers
- Require the preparation of an asbestos management plan
- introduce requirements concerning electrical safety in hostile operating environments residual current devices
- Introduce a licensing regime for independent asbestos assessors
- Reduce the value of the principal contractor duty threshold from \$350,000 to \$250,000
- Change provision for persons in training to carry out high risk work at a workplace

⁵ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

• Include cyclophosphamide as a scheduled carcinogen requiring a licence.

As with Option 2, it was not possible to quantify the costs and benefits of the proposed changes under Option 3 with any degree of accuracy. Accordingly, the benefits of avoided injuries, illnesses and fatalities are assumed to be the same as Option 1. However, a qualitative assessment of safety benefits was undertaken.

In terms of costs, the impact on employers would differ according to the extent to which the proposed changes apply to them. This variation would apply particularly for duty holders working across different states and territories.

Deloitte gathered estimates of the impact of the proposed changes through the one-to-one interviews. This included investigation of any initial once-off costs and/or savings associated with a proposed change and any subsequent ongoing costs and/or savings. The majority of the costs are driven by the proposed change to the model WHS Regulations' 'definition of a fall'.

Proposed change	Annual average cost (2015\$)	No. business/ licences	Total cost (2015\$)
Changes under Option 3 only			
Adopt model WHS definition of a fall (incl. below two metres)	\$10,512	31,306	\$329,091,355
Communication for isolated or remote employees (cost)	\$7,461	29,242	\$218,161,964
Communication for isolated or remote employees (saving)	-\$96	1,625	-\$156,090
Duty to have and test emergency plans (cost)	\$2,373	85,506	\$202,948,634
Duty to have and test emergency plans (saving)	-\$218	5,351	-\$1,166,289
Control the risk of falling objects (cost)	\$2,596	68,217	\$177,104,299
Control the risk of falling objects (saving)	-\$138	2,436	-\$337,093
Provide adequate level of first aid (cost)	\$589	90,973	\$53,604,506
Provide adequate level of first aid (saving)	-\$121	5,351	-\$648,181
Electrical safety (RCDs) (cost)	\$631	59,319	\$37,449,776
Electrical safety (RCDs) (saving)	-\$119	1,854	-\$221,298
Asbestos management plan	\$59	123,160	\$7,266,459
Independent assessors	\$15,000	22	\$330,000
Licencing scheme for cyclophosphamide	\$303	253	\$76,598
Changes under both Option 2 and Option 3			
Boilers (cost to intermediate holders)	\$1,435	247	\$354,445
Boilers (saving to intermediate holders)	-\$60	247	-\$14,820
Boilers (renewal saving to intermediate holders)	-\$60	444	-\$26,676
Allow only GHS classification and labelling of chemicals	\$977	65	\$63,373

Table vii: Summary of annual average costs to employers under Option 3

Proposed change	Annual average cost (2015\$)	No. business/ licences	Total cost (2015\$)
Alignment with model WHS in relation to AgVet labelling	\$0		\$0
Remove asbestos register requirements for buildings constructed after 2003	\$0		\$0
Low lift forklift trucks	\$0		\$0
Order picking forklift trucks	\$0		\$0
Written risk control plan (noise)	\$0		\$0
Permit employment of 16-18 year olds	\$0		\$0
Simplified requirements regarding safe air levels	\$0		\$0
Entry permit requirements for confined spaces	-\$25	1,320	-\$33,000
Reduce MSDS review requirements	-\$5,321	316	-\$1,679,587
Simplified mine communication requirements	-\$57,099	50	-\$2,854,940
Bridge and gantry crane and vehicle loading crane	-\$323	11,060	-\$3,572,380
Allow contractors to assist in asbestos removal work	N/Q		N/Q
Factors to be considered when identifying a mining hazard	N/Q		N/Q
Total			\$1,015,741,05

Source: Deloitte Access Economics analysis of one-to-one interview and ABS data (see Part Two of this report for details).

Notes: Savings are represented as negative costs. N/Q = Not quantified due to a lack of responses.

On the basis of the above estimates, the total estimated cost under Option 3 of meeting obligations under the OHS Act and Regulations is approximately \$138 billion in net present value terms.⁶ This is approximately \$10 billion higher than estimated costs under Options 1 and $2.^{7}$

⁶ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

⁷ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

A summary of costs under Option 3 is provided in Table viii.

Table viii: Estimated costs under Option 3 (Net Present Value)

	Cost type	NPV (\$ million)	Benefits compared to base case NPV (\$ million)
Society	Costs of workplace injuries and illnesses	\$94,075	\$33,043
	Costs of workplace fatalities	\$391	\$453
Business	Costs of OHS obligations (including OHS Act)	\$137,624	-\$35,391
	Costs of legal advice	\$0	\$4,054
Government	Cost of administering OHS legislation	\$1,010	\$0
	Total		\$2,159

Source: Deloitte Access Economics analysis.

Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

The preferred option

The preferred option has the highest net benefits to society as a whole. The estimated net benefits of each option relative to the base case are provided in Table ix.

All options have positive net benefits when compared with the base case. However, net benefits under Option 2 are the highest at \$11.81 billion compared with \$11.72 billion for Option 1 and \$2.16 billion for Option 3. On the basis of these results, Option 2 is preferred by a slight margin over Option 1.

Table ix: Estimated net benefits relative to the base case (Net Present Value)

	Cost type	Option 1 (\$ billions)	Option 2 (\$ billions)	Option 3 (\$ billions)
Society	Benefits of reduced workplace injuries and illnesses	\$33.04	\$33.04	\$33.04
	Benefits of reduced workplace fatalities	\$0.45	\$0.45	\$0.45
Business	Costs of OHS obligations (including OHS Act)	-\$25.83	-\$25.74	-\$35.39
	Benefit of reduced legal advice costs	\$4.05	\$4.05	\$4.05
Government	Cost of administering OHS legislation	\$0.00	\$0.00	\$0.00
	Net benefit	\$11.72	\$11.81	\$2.16

Source: Deloitte Access Economics analysis.

Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

Although the results of the cost benefit analysis suggest that Option 2 is only marginally more beneficial than Option 1 - with the difference being approximately \$84 million in

favour of Option 2 – it is important to reiterate that this analysis does not take account of a number of other benefits associated with the proposed changes under Option 2. These include improvements in consistency, predictability, flexibility and enforceability, the removal of duplication and the provision of further guidance. These benefits are outlined in detail in Part Two of this report under each of the hazard-specific chapters.

Cost recovery (licence fees)

Under the OHS and EPS Regulations, WorkSafe provides various licensing and registration services for asbestos removal work; high risk work (formerly certification of operators); hazardous substances; construction induction training; plant and plant design; major hazard facilities; and prescribed equipment design registration. WorkSafe charges fees for those services (recoverable services), which were last set in the making of the OHS Regulations.

In practice, WorkSafe's fees currently do not fully recover the costs associated with its services. A requirement outlined in the *Victorian Guide to Regulation* and general government policy is that regulatory fees and user charges should be set on a full cost recovery basis.

The cost recovery analysis undertaken by WorkSafe as part of this RIS found that by 2017-18, the estimated costs for recoverable activities performed by WorkSafe under the OHS and EPS Regulations would be \$6.3 million per annum, while revenue from current fees would be approximately \$5.3 million. This shortfall is due to a number of factors, including that licence fees have not increased since 2007, despite an increase in WorkSafe's costs during this time.

After considering a range of options, including adopting different licensing periods, it is proposed to amend licensing fees. A majority of the proposed fees rates will increase consistent with a full cost recovery basis. In addition, fees will be expressed as fee units and indexed annually.

Two new fees are proposed to improve the cost recovery of particular categories of licences and application assessments:

- Transfer of, amendment to or safety case applications made under an MHF licence; and
- Class B "specific" asbestos removal licence.

Further detail on the proposed fees is discussed in Chapter 18.

Implementation, evaluation and consultation

The proposed Regulations and this RIS will be made available for a two month period of public comment to provide employers, employees, other interested parties and members of the public with the opportunity to consider and provide feedback.

Following public comment, WorkSafe will consider and address all submissions received prior to the finalisation of the proposed Regulations. This will include a formal Response to Public Comment document which will outline and respond to the feedback received.

Once the new regulations are in place, WorkSafe will undertake a range of communication activities to assist stakeholders and the general public to understand and comply with the new regulations. This will include:

- Notification that new regulations have been made through formal communication channels (e.g. the Victorian Government Gazette and a state-wide newspaper)
- The development of accessible information that explains the changes introduced by the new regulations
- The update of existing guidance and development of new guidance to support the new regulations.

WorkSafe will also continue to undertake a range of constructive compliance and enforcement activities, in accordance with its *Compliance and Enforcement Policy*. This includes the provision of information and guidance to assist duty holders to comply, and inspections and investigations, where appropriate, to ensure compliance with the new regulations. Some transitional arrangements have been proposed, where appropriate (e.g. where licence fees are increasing), to enable duty holder to adjust to the new regulations.

WorkSafe has developed a strategy to evaluate the proposed Regulations to measure their effectiveness in achieving their core objectives; preventing injuries, illnesses and fatalities in the workplace; and preventing a serious safety incident from occurring and impacting on the Victorian community. The strategy will use quantitative and qualitative data to measure the impact of the Regulations on reducing selected workplace hazards.

Part One – Introduction and general analysis

1 Introduction

This chapter outlines the purpose of this RIS and the process to remake the OHS Regulations and the EPS Regulations. It also outlines the aims of the review process and the approach to preparing this RIS.

Key points:

WorkSafe is required to review and remake the OHS and EPS Regulations before they sunset on 19 June 2017.

The purpose of this RIS is to provide an overview of the problem posed by health and safety risks in the workplace. It also outlines options for addressing this problem, the associated costs and benefits, and the impacts of the Victorian Government's preferred option, as reflected in the proposed Regulations. The RIS also examines public safety and the use of prescribed equipment in non-workplaces.

Prior to development of this RIS, WorkSafe undertook a comprehensive review of the Regulations with the aim of achieving an effective OHS regulatory regime. This review involved extensive consultation with stakeholders which provided significant contribution to the development of proposed changes.

Consultation has also been undertaken by Deloitte in the preparation of this RIS.

The public comment period provides employers, employees, other interested parties and members of the public with the opportunity to consider and provide feedback on the proposed Regulations and RIS.

1.1 Purpose

Deloitte has been engaged by the Victorian Government to prepare this RIS to support the review of the OHS Regulations and the EPS Regulations, which are due to expire in June 2017.

The rigorous assessment of regulatory proposals ensures regulation best serves the Victorian community. This RIS has been prepared to outline the following key matters:

- The need to regulate occupational health and safety in Victoria
- Options for addressing the problem of health and safety risks in the workplace
- The costs and benefits of proposed options to address the problem
- The preferred option and the rationale for choosing this option
- Implementation considerations
- The proposed evaluation strategy for the remade regulations.

This RIS has been developed to assess options to remake the OHS and EPS Regulations in some form, given their expiry in 2017. It takes into account the general duties relating to health and safety which exist under the OHS Act and the general duties relating to individuals using prescribed equipment in non-workplaces under the EPS Act which would continue to apply in the absence of the OHS and EPS Regulations.

1.2 Process to remake the Regulations

The OHS and EPS Regulations will expire in June 2017. WorkSafe is required to review and remake the regulations by this date.

Under the *Subordinate Legislation Act 1994* (SL Act), a responsible Minister must ensure that a RIS is prepared for any proposed regulation to ensure regulation best serves the Victorian community.

This RIS has been prepared by Deloitte in accordance with the *Victorian Guide to Regulation*⁸, which provides a best practice approach for analysing any proposed regulatory intervention. This RIS estimates the current impact of the OHS and EPS Regulations, and the extent of any associated health and safety benefits or time and cost savings resulting from any potential changes to the regulations for businesses in Victoria.

The process to remake the proposed Regulations involves the following steps:

- 1. Initial review
- 2. Comprehensive review
- 3. Preparation of a RIS (this document)
- 4. Public comment on the proposed Regulations
- 5. Addressing public comment
- 6. Implementation of new regulations.

These steps are outlined in more detail below.

Initial review The OHS Regulations were subject to an initial review by WorkSafe to identify opportunities to improve workability, for streamlining and to reduce unnecessary red tape and deliver savings to business without reducing safety standards. This resulted in the OHS Amendment Regulations which came into effect on 1 July 2014. These amendments improved the workability of the regulations and reduced compliance costs for businesses without reducing safety standards. The amendments also saved Victorian businesses more than \$30 million per annum in compliance costs. Amendments were made to various sections of the OHS Regulations, including the plant, construction, mines and licensing parts.

⁸ Government of Victoria, (2011), *Victorian Guide to Regulation*, Department of Treasury and Finance, Melbourne.

Comprehensive
reviewWorkSafe undertook a comprehensive review of the OHS and EPS
Regulations to ensure Victoria continues to have an effective OHS
regulatory regime.

WorkSafe established subject-specific stakeholder reference groups (SRGs) to support the review of hazard specific and industry specific chapters within the regulations.

The groups are made up of both employee and employer representatives, drawn mainly from WorkSafe's established Health and Safety SRG. An additional SRG, made up of Government and Emergency Services representatives, was set up to review the Major Hazard Facilities Part of the OHS Regulations.

WorkSafe has undertaken a significant amount of stakeholder engagement throughout the review; with more than 220 hours of face to face engagement with stakeholders taking place. Sixty one topic specific SRG meetings have been held to date, and a total of 73 stakeholder organisations contacted to ensure they are aware of the review of the regulations and how they can have input.

A dedicated website was also established to provide SRG members with information about the progress of the review and regulatory change proposals throughout the life of the project.

The proposed changes to the OHS and EPS Regulations were developed with consideration of stakeholder feedback gathered through this process.

PreparationofThe key purpose of this RIS is to assess the impacts of the OHS and EPSRISRegulations, including proposed changes and a range of alternative
options to address the problem of health and safety risks in the
workplace and associated illnesses, injuries and fatalities.

Preparation of the RIS also included extensive stakeholder consultation undertaken by Deloitte to gather relevant information on the impact of current and proposed Regulations. This information was a key input to the cost benefit analysis outlined in this report.

Deloitte's consultation during the development of this RIS included:

- 148 one-to-one meetings with employers across affected industries
- A web-based survey which received responses from 167 small, medium and large employers across all affected industries
- Two metropolitan focus group sessions with employee and employer representative bodies, and three regional focus group sessions with local businesses, employee and employer representatives.

More detail on the approach to reviewing the regulations through the preparation of this RIS is provided in Section 1.4.

Public comment	The proposed Regulations and this RIS will be released for a two month public comment period to provide employers, employees, other interested parties and members of the public with the opportunity to consider and provide feedback on the proposed Regulations and RIS. The process for public comment is outlined in the Foreword to this report.
Addressing public comment	WorkSafe will consider all submissions received during public comment and prepare a formal Response to Public Comment document which will detail the submissions received, and WorkSafe's response.
Introduction of new regulations	New OHS and EPS Regulations will be in place by June 2017 and will support Victoria's position as having the safest workplaces in Australia.

1.3 Aims of the review process

The review aims to:

- Evaluate the effectiveness of the existing regulations
- Improve health and safety outcomes for employees
- Identify and deliver savings to business without reducing safety standards
- Ensure the regulations align with areas of greatest risk
- Ensure the regulations deliver a proportionate regulatory response
- Streamline and modernise the regulations whilst maintaining best practice.

In undertaking this review, the OHS Regulations have been considered in the context of the broader framework for addressing health and safety risks in the workplace that also includes the OHS Act, Compliance Codes, non-statutory guidance and WorkSafe guidelines. The general duties in the OHS Act apply to all OHS risks while the OHS Regulations focus on a subset of these risks that are effectively addressed through regulation.

The EPS Regulations largely mirror the part of the OHS Regulations which deals with plant, and applies those provisions to plant that exists outside work places. These regulations provide for the health and safety of people when certain types of plant are used outside work places. The EPS Regulations are made under the Equipment (Public Safety) Act 1994 and were reviewed to ensure they maintain best practice while improving health and safety outcomes.

In accordance with the aims set out above, the following principles guided the review:

- Removing duplication the Regulations will be carefully examined to remove any residual duplication or inconsistency between the Act duties and those in the regulations
- Providing guidance regulations should not simply provide 'guidance' on how to comply with the OHS Act. That is a subject matter for compliance codes, guidelines or other guidance material
- Enforceability regulations should be made only where it has been determined that they are capable of enforcement

- Consolidation the replacement regulations will continue to be a consolidated set of regulations. The review will ensure streamlined provisions where appropriate and that a consistent approach is adopted throughout (unless a different approach is justified for a particular regulated area)
- **Consistent and predictable** regulations should be consistent with other policies and laws to duty holders to avoid confusion. They should also be predictable to create a stable regulatory environment and foster business confidence
- **Flexibility** where possible duty holders will be provided with flexibility regarding how they comply with their obligations
- **Proportionality** the Regulations will be proportional to the risk to safety that they seek to address.

1.4 Approach to preparing this RIS

The approach taken was as follows:

- Identification of the problem to be addressed through the proposed OHS and EPS Regulations. This involved consideration of the nature and extent of the problem, the need for government intervention, the risks of non-intervention and the objectives of intervention. This included consideration of specific risks in different hazard areas, such as high risk work, hazardous substances and asbestos.
- Identification of options to achieve the objectives of the proposed Regulations. The proposed changes to the OHS and EPS Regulations, including alternative options, were developed by WorkSafe with consideration of stakeholder feedback gathered through the SRGs. An analysis of proposed changes under each of the options was undertaken to determine possible costs and benefits to be included in the cost benefit analysis and explored through stakeholder consultation.
- Stakeholder consultation was undertaken by Deloitte to gather relevant information on the impact of existing and proposed Regulations on key stakeholders, including employee and employer representatives. This information was a key input to the cost benefit analysis. The consultation process included:
 - 148 one-to-one meetings with employers across all affected industries
 - A web-based survey which received responses from 167 small, medium and large employers across all affected industries
 - Two metropolitan focus group sessions with key stakeholders including employee and employer representative bodies and three regional focus group sessions with local businesses, employee and employer representatives.
- Assessment of costs and benefits under all options relative to a base case of no regulation, consistent with requirements outlined in the *Victorian Guide to Regulation*.⁹ The analysis included quantification of benefits to employees, employers and the community from improved health and safety outcomes, costs to employers of complying with regulations and costs to the Government of implementing and administering regulations. The results of the cost benefit analysis are calculated over a

⁹ Government of Victoria, (2011), *Victorian Guide to Regulation*, Department of Treasury and Finance, Melbourne.

ten year timeframe and summarised in net present value terms using a four per cent discount rate. The option with the highest net benefit to society has been selected as the preferred option.

The cost benefit analysis involved a wide range of inputs, including WorkSafe data, Safe Work Australia (SWA) data, data gathered through a web-based survey and data gathered through one-to-one interviews. This data was used to calculate results using various types of analyses which vary depending on the option being considered and level of analysis (i.e. aggregate or hazard-specific). The relationship between the inputs, types of analysis, options and levels of analysis is depicted in Figure 1.1.

- Assessment of other impacts of the preferred option on small business and competition generally
- Implementation, enforcement and evaluation. This involved an assessment of key implementation and enforcement issues associated with the preferred option and development of an evaluation strategy for the proposed OHS and EPS Regulations
- Fee analysis. This involved an assessment of costs to be recovered through fees charged under the proposed OHS and EPS Regulations and options for structuring those fees, consistent with requirements outlined in the Victorian Cost Recovery Guidelines.¹⁰

More detail on the approach taken for these analyses is provided throughout this report and further technical information is provided in the appendices.

¹⁰ Government of Victoria, (2013), *Cost Recovery Guidelines*, Department of Treasury and Finance, Melbourne.

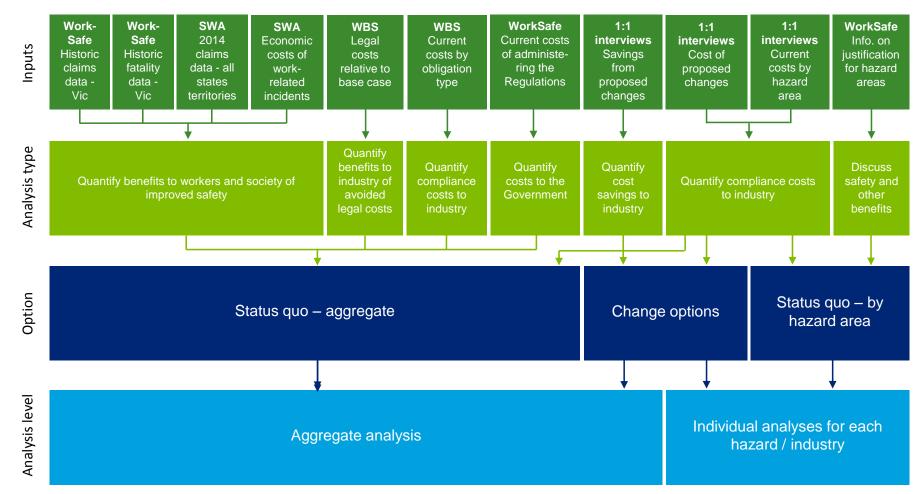


Figure 1.1: Relationship between inputs, types of analysis, options and levels of analysis undertaken for this RIS

Notes: SWA = Safe Work Australia; WBS = web-based survey undertaken for this RIS; 1:1 interviews = one-to-one interviews undertaken for this RIS.

1.5 Structure of report

This report is structured into three main parts. Part One provides an analysis of the OHS and EPS Regulations as a whole. This includes relevant background information, a general discussion of the nature and extent of the problem and results of the aggregate analysis of costs and benefits. This aggregate analysis focuses on the effects of the OHS Regulations and proposed options as a whole.

Given the OHS Regulations focus on specific hazards, this RIS provides individual analyses for each of the hazard-related chapters in the OHS Regulations (referred to as 'hazard areas' for the remainder of this report). Each of these analyses provides a focused discussion of the problem, objectives of regulation, feasible options and costs and benefits under those options. These analyses are included in Part Two. Part Three provides the remaining chapters of the RIS, including the implementation strategy and evaluation strategy. Further detailed information and analysis is provided in the appendices and accompanying technical appendix.

The remainder of this report is structured as follows:

- Part one Introduction and general analysis
 - Chapter 2 Background
 - Chapter 3 Nature and extent of the problem
 - Chapter 4 Aggregate analysis
- Part Two Analysis by hazard area
 - Chapter 5 Introduction to hazards areas
 - Chapter 6 Manual handling
 - Chapter 7 Noise
 - Chapter 8 Falls
 - Chapter 9 Confined spaces
 - Chapter 10 Plant
 - Chapter 11– Equipment (Public Safety)
 - Chapter 12 High risk work
 - Chapter 13 Hazardous substances, scheduled carcinogens and lead
 - Chapter 14 Asbestos
 - Chapter 15 Construction
 - Chapter 16 Major hazard facilities
 - Chapter 17 Mines
 - Chapter 18 Prescribed fees
 - Chapter 19 Increased national consistency option in detail
- Part Three Implementation and evaluation
 - Chapter 20 Implementation
 - Chapter 21– Evaluation and review
- Appendix A Detailed list of proposed changes under Option 2
- Appendix B Stakeholder consultation

- Appendix C Applicability of market based instruments
- Appendix D Explanatory notes on comparative performance

2 Background

This chapter provides information on Victoria's current approach to ensuring occupational health and safety.

Key points:

The Victorian Government's approach to ensuring occupational health and safety involves a range of mechanisms including: prevention through OHS legislation, the OHS compliance inspectorate and public information campaigns; protection through employer insurance and workers' compensation; and facilitation of return to work outcomes through a number of measures. WorkSafe takes a constructive compliance approach to enforcement of OHS legislation.

Employees, employers and their representative organisations are involved in the formulation and implementation of occupational health and safety.

The Victorian Government is committed to reducing the number of work-related injuries, illnesses and fatalities, and achieves this through a range of mechanisms administered by WorkSafe. These can be broadly categorised into five areas: legislation and Compliance Codes; information, education and other programs; constructive compliance; workers' compensation and stakeholder engagement.

2.1 Laws, regulations and codes

Relevant legislation is the OHS and EPS Acts, OHS and EPS Regulations, and a number of other legislative and non-legislative instruments to ensure the safety of individuals in the workplace, or in the case of the EPS Regulations, the safety of individuals using prescribed equipment in non-workplaces (e.g. hobby farms). Specifically, these instruments:

- Place obligations on employers and other specified individuals (e.g. operators of plant equipment, designers and manufacturers) to uphold a general duty of care with regard to the health and safety of employees and members of the public
- Specify technical requirements of plant, substances and structures used in workplaces
- Specify exposure limits to certain measurable hazards
- Specify process requirements to follow in the management of hazards
- Specify how health and safety representatives (HSRs) engage in consultation processes and other health and safety matters arising in the workplace
- Provide specific information for employers and specified persons in complying with government regulation.

The duty imposed on an employer to ensure health and safety requires the employer to eliminate risks to health and safety, so far as is reasonably practicable. If it is not reasonably practicable to eliminate risks to health and safety, then to reduce those risks so far as is reasonably practicable. The duty is framed as a hierarchy of control with elimination of the risk to health and safety at the top of the hierarchy. Controls can be categorised as engineering (e.g. minimising the hazard by design or isolating a hazard by use of guards), administrative (e.g. written operating procedures or installation of signs) or personal protective equipment (PPE) (e.g. hearing protectors or safety glasses). Engineering controls reduce the behavioural component and therefore offer a higher level of protection and reliability than administrative or PPE risk controls measures. Engineering controls are often referred to as higher order controls.

These laws and regulations also set out WorkSafe's statutory obligations as the occupational health and safety regulator:

- Health, safety and welfare in the workplace under the OHS Act
- High-risk equipment used in public places and on private premises under the EPS Act
- Explosives and other dangerous goods under the Dangerous Goods Act 1995
- The transport of dangerous goods by road under the *Road Transport Reform* (Dangerous Goods) Act 1995.

The full list of Acts and regulations administered by WorkSafe is presented below:

- Accident Compensation Act 1985
- Accident Compensation (Occupational Health and Safety) Act 1996
- Workers Compensation Act 1958
- Occupational Health and Safety Act 2004
- Dangerous Goods Act 1985
- Equipment (Public Safety) Act 1994
- Mines Act 1958
- Workplace Injury Rehabilitation and Compensation Act 2013.

The following regulations set out mandatory requirements under the Acts:

- Dangerous Goods (Explosives) Regulations 2011
- Dangerous Goods (Explosives) and (Transport by Road or Rail) Amendment Regulations 2013
- Dangerous Goods (HCDG) Regulations 2005
- Dangerous Goods (Storage and Handling) Regulations 2012
- Dangerous Goods (Transport by Road or Rail) Regulations 2008
- Equipment (Public Safety) Regulations 2007
- Magistrates' Court (Occupational Health and Safety) Rules 2005
- Occupational Health and Safety Regulations 2007
- Workplace Injury Rehabilitation and Compensation Regulations 2014
- Workplace Injury Rehabilitation and Compensation (Savings and Transitional) Regulations 2014.

Compliance Codes provide practical guidance to those who have duties or obligations under the OHS Act and OHS Regulations. They aim to provide easy to understand information on how to comply with these laws. Duty holders who appropriately follow the guidance are deemed to have complied with their obligations under the OHS legislation. The current Compliance Codes are:

- Communicating occupational health and safety across languages
- Workplace amenities and work environment
- Confined spaces
- First aid in the workplace
- Falls in general construction
- Foundries
- Managing asbestos in workplaces
- Removing asbestos in workplaces.

There are also a number of Codes of Practice including:

- Prevention of falls in housing and construction
- Building and construction
- Safety precautions in trenching operations
- Demolition
- Manual handing
- Plant
- Hazardous substances
- Lead.

WorkSafe is currently developing a new Compliance Code on Noise, and is updating several existing Codes to reflect the proposed regulations

Hazard specific regulations that applied prior to the OHS Regulations 2007

When the Regulations were made in 2007 they consolidated separate regulations that targeted specific hazards. The regulations that were consolidated and repealed in 2007 are detailed in Table 2.1 below.

Table 2.1: Hazard specific regulations that applied prior to the OHS Regulations 2007

Occupational Health and Safety (Confined Spaces) Regulations 1996

Occupational Health and Safety (General Amendment) Regulations 1998

Occupational Health and Safety (Certification of Plant Users and Operators) Regulations 1994

Occupational Health and Safety (Plant) Regulations 1995

Occupational Health and Safety (Plant) (Amendment) Regulations 1998

Occupational Health and Safety (Plant) (Amendment) Regulations 2001

Occupational Health and Safety (Hazardous Substances) Regulations 1999

Occupational Health and Safety (Issue Resolution) Regulations 1999

Occupational Health and Safety (Manual Handling) Regulations 1999

Occupational Health and Safety (Lead) Regulations 2000

Occupational Health and Safety (Major Hazard Facilities) Regulations 2000

Occupational Health and Safety (Major Hazard Facilities) (Amendment) Regulations 2002

Occupational Health and Safety (Mines) Regulations 2002

Occupational Health and Safety (Mines) (Amendment) Regulations 2004

Occupational Health and Safety (Asbestos) Regulations 2003

Occupational Health and Safety (Asbestos) (Amendment) Regulations 2003

Occupational Health and Safety (Prevention of Falls) Regulations 2003

Occupational Health and Safety (Noise) Regulations 2004

Occupational Health and Safety (Entry Permits) Regulations 2005

2.2 Information, Education and other programs

WorkSafe's approach to information and education involves the following components to promote health and safety within the workplace:

- Public awareness campaigns which aim to raise the broader level of awareness about OHS
- **Targeted information campaigns** which includes information sheets and pamphlets that are made available for workplaces and focus on particular hazard areas
- OHS training provision of training courses for HSRs in the workplace
- Non-statutory guidance the OHS Act requires WorkSafe to promote public awareness and discussion of OHS matters and understanding and acceptance of the principles of health and safety. In order to do so, WorkSafe coordinates and promotes the sharing of OHS information, ensuring at all times that the information is in a form and language that is appropriate for those to whom the message is directed. Sitting outside the OHS legislative regime is a range of information that can provide valuable guidance to people working in particular industries and occupations on what is reasonable and practicable to apply in workplaces to improve safety. This includes handbooks, guides, information sheets and safety alerts.

In addition to information and education initiatives, WorkSafe develops and implements a number of prevention programs. These programs provide incentives for employers to eliminate or reduce risks to health and safety and to otherwise improve OHS. Examples include:

- WorkSafe OHS Essentials Program a free safety consultation service delivered by an independent OHS consultant who help employers identify hazards and provide a practical safety action plan
- Safe Towns a concentrated workplace inspection by WorkSafe inspectors at targeted locations throughout the year. During the workplace visits, inspectors provide practical and constructive advice about how to comply with Victoria's OHS legislation, and advise how to fix any safety breaches they come across.

2.3 Compliance and enforcement

WorkSafe takes a constructive compliance approach to enforcement of OHS legislation and also to enforcement of return to work responsibilities under the *Workplace Injury Rehabilitation and Compensation Act 2013* (WIRC Act). Under this approach WorkSafe balances encouragement for OHS and return to work with deterrence for poor performance. This approach is illustrated in Figure 2.1.



Figure 2.1: Enforcement of the Victorian OHS Regulatory System

Source: WorkSafe.

WorkSafe's deterrence activity is applied pursuant to the WorkSafe Compliance and Enforcement Policy. This policy outlines the circumstances under which an Inspector will inspect a workplace, the criteria to commence an investigation and prosecution criteria.

2.4 Workers' compensation

Workers' compensation supports the aims of OHS through businesses facing monetary costs and obligations with respect to workers who are injured at work. The legislative framework provides for:

- Workers' compensation and the rehabilitation of injured workers under the Accident Compensation Act 1985 (AC Act) and the WIRC Act
- Employer insurance and premiums under the WIRC Act
- Return to work obligations under the WIRC Act.

WorkSafe provides information for employers and workers to aid the return of injured workers to the workplace through return to work programs. In addition to this, incentives are available for employers hiring new, previously-injured, workers.

Premiums are paid by employers to fund compensation to injured workers and the costs of medical treatment. Employer premiums are risk rated based on industry and for large employers, their claims performance. For large employers there is a monetary incentive to reduce injuries in the workplace as this can reduce their premium. In addition to these arrangements, employers can be liable through Common Law for damages where an employee has suffered a 'serious injury' and where it can be shown that the employer is at fault. This acts as an incentive for employers to comply with health and safety practices and standards in the workplace.

2.5 Stakeholder engagement

The OHS Act provides for the involvement of employees, employers and their representatives in the formulation and implementation of occupational health and safety standards. Some subordinate legislation also requires WorkSafe to engage with stakeholders on behalf of the Minister in relation to regulatory change.

WorkSafe engages with a diverse range of stakeholder groups in delivering on its objectives including employee and employer representative organisations, medical, health and rehabilitation providers, professional associations, injured workers and their representatives, and legal practitioners.

Engaging effectively and consistently with stakeholders plays an important role in building support for health and safety, return to work, and behaviour change initiatives developed by WorkSafe.

WorkSafe also engages with stakeholders to enable us to perform the following functions effectively:

- Disseminating information about the duties, obligations and rights of people covered by the relevant legislation
- Formulating standards or other forms of guidance to assist people to comply with their duties and obligations
- Promoting education and training
- Fostering a cooperative relationship between employers and their employees in relation to the health and safety of those employees.

WorkSafe convenes a number of formal and informal tripartite forums to guide its stakeholder engagement.

The Occupational Health and Safety Advisory Committee (OHSAC) and WorkCover Advisory Committee (WAC) are statutory advisory committees, mandated by parliament.

Under Part 2, Division 6 of the OHS Act, OHSAC is established to provide a forum of people with expertise and/or who represent stakeholders with an interest in matters involving the promotion of healthy and safe working environments and in the operation and administration of the OHS Act.

OHSAC is chaired by the Chairman of the Board and comprised of:

- Two members recommended by the Board
- Two members who represent the interests of the State
- Six members who represent the interests of Victorian employers
- Six members who represent the interests of Victorian employees
- Two independent members with appropriate experience and expertise.

Section 512 of the WIRC Act details the role and the structure of the WAC. WAC advises the WorkSafe Board in relation to its objectives to ensure appropriate payments to injured workers and to promote occupational rehabilitation and early return to work.

WAC is made up of members appointed by the Minister who have knowledge and experience in accident compensation law, the provision of medical services or members with experience in accident compensation who are nominated by Victorian employer and employee groups.

WAC may make recommendations to the Board, and the Board may refer matters to WAC for consideration.

WorkSafe convenes a Health and Safety Stakeholder Reference Group, to advise WorkSafe on its operational approach to OHS compliance and enforcement.

WorkSafe also convenes a number of other standing committees and working groups that focus on operational matters and workplace safety specific issues, such as the development of statutory guidance, consultation on legislative change or emerging safety issues. These committees have terms of reference that specify their governance arrangements such as the purpose of the committee, membership and duration.

3 Nature and extent of the problem

This chapter outlines the nature and extent of the problem, the need for government intervention in occupational health and safety, the risk of non-intervention and the objectives of government intervention.

Key points:

The key problem to be addressed through government intervention is the existence of health and safety risks in the workplace and associated illnesses, injuries and fatalities.

Employees in different industries and occupations face a wide range of risks and dangers in their jobs as a result of several factors. These include: the equipment used in the industry/occupation, the materials handled in the industry/occupation, the work practices adopted, the environment in which the work is carried out and the physical requirements of the work. In some cases, these risks also apply to members of the general public.

An overarching legislative framework exists to address these risks and dangers. This includes the OHS Act, the OHS Regulations¹¹, Compliance Codes, non-statutory guidance and WorkSafe Positions. The OHS Act places obligations on employers and other specified individuals (e.g. designers, manufacturers and suppliers of plant equipment) to uphold general duties of care with regard to health and safety at a workplace.

The general nature of these duties means that they cover a very wide variety of circumstances and risks, whereas the OHS Regulations focus on a subset of those risks. The targeting of particular risks through the OHS Regulations occurs in cases where regulation is deemed the most effective and appropriate way to deal with the risk, including where a non-statutory response or a Compliance Code is unlikely to adequately address it.

Specifically, regulatory intervention can be considered appropriate in a number of cases, including where: the risk and the means of control are well known, there are no viable alternatives and the risk is significant enough to warrant regulation; the target or outcome can be clearly defined, measured, evaluated and verified and the risk is significant enough to warrant regulation; it is unlikely that a duty holder will arrive at appropriate risk control measures without following the prescribed process; and where the OHS Act leaves matters of detail to be prescribed in regulations.

More generally, there is a clear rationale for government intervention in occupational health and safety to address the management of community risk and to address behavioural factors that drive risks including lack of information and difficulty in assessing risk accurately.

¹¹ This RIS is for the OHS Regulations and EPS Regulations. The major focus is the OHS Regulations so this RIS only refers to the EPS Regulations when they are being explicitly discussed for example in Chapter 12.

3.1 Making the case for government regulation

In the context of the current OHS Regulations sunsetting in June 2017, an opportunity exists to establish whether occupational health and safety regulations governing activities in the workplace are still required as part of the Government's broader approach to ensuring the health and safety of employees. To establish this, the following questions must be answered:

- Is there a problem that needs to be addressed, and is that problem significant?
- Does government need to intervene, or will the market resolve the issue itself?
- What risks would arise if the Government chose not to intervene?
- What objectives does the Government intend to achieve through intervention?
- Will the benefits of government intervention outweigh the costs?

This chapter addresses the first four points. The options for government intervention and an assessment of whether the benefits of intervention outweigh the costs are set out in Chapter 4.

3.2 Nature and extent of the problem

Every day employees and their employers face a range of risks to their health and safety that need to be appropriately and effectively managed so that no-one is injured, contracts an illness, or dies. The existence of such risks is part of the workplace and associated work processes.

Work-related injuries, illnesses and fatalities regrettably continue to occur even though there have been reductions over the past two decades. These reductions are in part due to the legislative framework, including the current regulations, and other measures that have contributed to improving occupational health and safety culture. In addition, technological improvements and changes in the structure of the Victorian economy may also have contributed to injury reductions as discussed below.

3.2.1 Description of the problem

The key problem to be addressed through government intervention is the existence of health and safety risks in the workplace and associated illnesses, injuries and fatalities. Employees in different industries and occupations face a wide range of risks in their jobs as a result of several factors, including the equipment used in the industry/occupation, the materials handled in the industry/occupation, the work practices adopted, the environment in which the work is carried out and the physical requirements of the work. The behaviour of individuals also has a bearing on safety in the workplace. This is discussed further in section 3.2.2. These risks stem from a range of hazards, predominantly environmental factors as follows:

Physical hazards – Manual handling, noise, falls from heights, confined spaces, the use
of machinery and equipment, the use of hazardous plant, slips and trips, falling objects
and occupational violence

- Hazardous substances and materials Hazardous substances, scheduled carcinogens, asbestos and lead
- Hazards associated with work undertaken in hazardous industries Construction, major hazard facilities, mines and agriculture
- Psychosocial hazards Stress, bullying, fatigue, harassment and other workplace stressors.

Some hazards apply to greater or lesser extent in all workplaces and industries, such as slips and trips, manual handling and psychosocial hazards, while others are particular to specific workplaces and industries, such as the use of specialised plant or exposure to particular substances and chemicals. For example, the key hazards relevant to manufacturing industries relate to noise, plant and equipment, manual handling and hazardous substances. These hazards are also relevant to the building and construction industry in addition to those relating to falls from heights, falling objects and exposure to asbestos.

There are a number of relevant factors that can influence the extent to which the above hazards are controlled for or impact a business. These include but are not limited to:

- The reputational incentives that businesses face to ensure their own safety by undertaking safe work practices. Reputation can impact on a business' ability to attract and retain staff and its ability to sell products or operate in a particular marketplace.
- The incentives employees face to ensure their own safety by undertaking safe work practices
- General forms of technological improvement that bring safety benefits or reduce the cost of maintaining a safe workplace.

The OHS Act is the cornerstone of the occupational health and safety framework. It places obligations on employers and other specified individuals (e.g. designers of plant and manufacturers of plant and substances) to uphold general duties of care with regard to the health and safety of employees and members of the public. For example, it includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable.

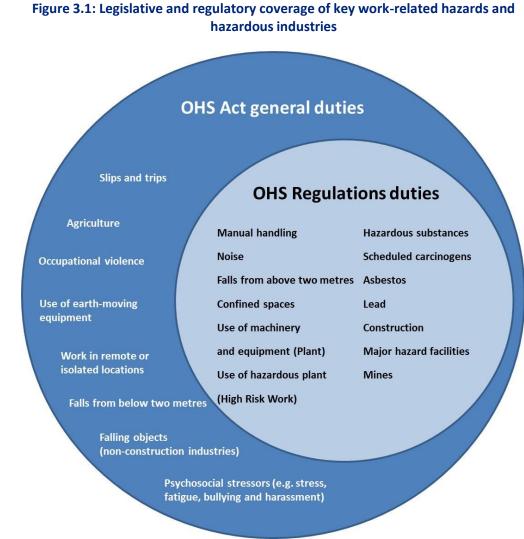
The general nature of these duties means that they cover a very wide variety of circumstances and risks, whereas the OHS Regulations focus on a subset of those risks. Particular risks are targeted through the OHS Regulations where regulation is considered the most effective and appropriate way to deal with the risk and where lower level interventions, such as the provision of practical guidance, are not considered adequate by itself to address the risk. WorkSafe takes into consideration a number of principles when proposing regulation to deal with a particular risk. The following principles guide WorkSafe when considering a regulation.¹²

 Mandating specific risk control measures or prohibiting certain activities – This type of regulation will usually be appropriate where the risk and the means of control are well known, there are no viable alternatives and the risk is significant enough to warrant regulation

¹² These principles are taken from the *Victorian Occupational Health and Safety Compliance Framework Handbook,* 26 June 2013.

- Mandating performance standards This type of regulation may be appropriate where the target or outcome can be clearly defined, measured, evaluated and verified and the risk is significant enough to warrant regulation
- Mandating processes to be followed This type of regulation may be appropriate when it is unlikely that a duty holder will arrive at appropriate risk control measures without following the prescribed process
- Providing permissions Licensing or other permissioning schemes may be appropriate where:
 - there is a clear, evidence-based case that, given the severity of the risk, there is a need to ensure that a certain standard is achieved prior to an activity being undertaken or undertaking being conducted; and
 - there is a need to ensure that a sanction is available to prevent a duty holder engaging in an activity (through suspension or revocation of the permission) in the event of serious non-compliance; or
 - the proposed scheme forms part of a national agreement that is designed to ensure national consistency of permissioning arrangements, e.g. through nationally agreed schemes
- **Requiring record keeping** This type of regulation may be appropriate to ensure the health and safety of persons or to facilitate the discharge of duties by others
- Prescribing matters of detail to make the OHS Act work This type of regulation is appropriate where the OHS Act sets out the general rule or procedure to be followed and leaves matters of detail to be prescribed in regulations.

Application of these principles leads to a number of work-related hazards being addressed by the OHS Regulations in addition to the OHS Act while other risks are covered by the general duties under the OHS Act as listed in Figure 3.1 below. Guidance material and Compliance Codes are also provided in relation to work-related hazards as discussed above.



Source: WorkSafe.

In summary, the overarching problem to be addressed through government intervention is the existence of health and safety risks in the workplace and associated illnesses, injuries and fatalities. In the context of the broader framework for addressing occupational health and safety risks, and noting the existence of the general duties under the OHS Act, the specific problem to be addressed through the OHS Regulations is the need to supplement the general duties by providing detailed information on how to comply in respect of a particular hazard. This includes mandating specific risk control measures and prohibiting certain activities. The regulations provide clarity and certainty, particularly for employers, on how to uphold the general duties for specific hazards.

3.2.2 Drivers of the problem

In addition to the environmental factors listed in Section 3.2.1 above there are also behavioural factors that drive risks in relation to health and safety in the workplace. These can include:

- Lack of information If an individual does not have information on the job related risks because it is not readily available or is too costly to access or collect, they may make a decision that they would not do if they were fully aware of the potential outcomes
- **Difficulty in assessing risk accurately** Even if employees and employers had perfect information, there are a range of cognitive biases that mean risk is not processed accurately. For example:
 - Optimism bias: causes a person to believe they are less at risk of experiencing a negative event compared to others resulting in overconfidence in risk judgements relevant to health and safety in the workplace¹³
 - Neglect of probability bias: is the tendency of a person to disregard the probability of a particular future event occurring. In industries with high impact/low frequency events, employers may, due to neglect of probability bias, treat the probability of a catastrophic event as zero rather than very small.¹⁴
- Employers and employees don't face the full cost of their decisions As a result, employers may underinvest in preventing injuries and illnesses because:
 - Costs of work-related injury and illness are passed onto the general community (e.g. through social welfare payments associated with medical and health costs, and the loss of human capital)
 - Employers do not bear the full financial costs of health and safety incidents they are responsible for.

These costs are often referred to as 'negative externalities' and occur when an activity imposes costs, which are not compensated for, on parties not directly involved in the activity. Pollution is a common example of a negative externality.

Recent analysis by Safe Work Australia estimates the full costs associated with work-related injury and illness and finds employers incur approximately four per cent of total costs, employees approximately 78 per cent and society approximately 17 per cent.¹⁵ This demonstrates that employers and employees may not have sufficient incentives to prevent injuries and illnesses because some of the costs of work-related injuries and illnesses are passed on to the general community (e.g. social welfare payments, medical and health costs, and loss of human capital).

Further, the full extent of the costs of injuries and illnesses may not be known or realised for a number of years after an incident has occurred. The example of asbestos can illustrate this issue, as outlined in the Box 3.1.

¹³ Shepperd, J. A., Carroll, P., Grace, J., & Terry, M., (2002), *Exploring the causes of comparative optimism*, Psychologica Belgica, *42*, 65-98

¹⁴ Baron, J., (2000), *Thinking and Deciding* (3d ed.), Cambridge University Press p. 260-261

¹⁵ Safe Work Australia, (2015), *The cost of work-related injury and illness for Australian employers, workers and the community: 2012-13*, Canberra

Box 3.1: The effect of long latency in relation to asbestos

The difficulty in diagnosing diseases related to asbestos exposure and their long latency means that employers often do not face the full financial costs of workplace exposure.

The World Health Organisation and the International Agency for Research on Cancer have stated there is no identified safe threshold for exposure to asbestos. While limited or short-term exposure to more highly-damaging forms of asbestos fibres has been shown a potential to be dangerous; ¹⁶ exposure does not necessarily make the development of mesothelioma inevitable. There is still much unknown about why some people are susceptible to mesothelioma, while others who have been regularly exposed to asbestos do not develop any asbestos-related disease. This is why a precautionary approach to exposure to asbestos fibres is often adopted.¹⁷

These diseases also have a long latency between exposure and onset of symptoms, which is usually between 20 and 50 years. Combined with the uncertain contraction of asbestos-related diseases, this makes it difficult to assess the health impacts of exposure to asbestos today and to attribute costs to employers when symptoms onset in the future. In some cases, due to the long timeframes, the employer has ceased to exist by the time symptoms arise.

A further argument for government intervention is equity. In a competitive market, some employers may choose higher profits at the expense of investing in health and safety measures. This would result in some employees being exposed to lower health and safety standards than other employees in the same industry and potentially employees being exposed to standards lower than community expectations. The management of community risk suggests that there is a minimum standard of occupational health and safety that all employers are expected to comply with.

3.2.3 Evidence of a problem

The evidence of a problem is outlined below in terms of the following areas:

- Existence of risk
- Workforce changes
- Claims and fatalities overview
- State and territory comparison.

¹⁶ IARC, (2012), *A Review of Human Carcinogens: Arsenic, Metals, Fibres, and Dusts*, In: IARC (ed.) Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100C, pp 219-309

¹⁷ Asbestos Safety Eradication Agency (ASEA), (2014), National Strategic Plan for Asbestos Management and Awareness 2014-18, p.5.

3.2.3.1 Existence of risk

Employees in different industries and occupations face a wide range of risks and dangers in their jobs as a result of several factors. Such factors include: the equipment used in the industry/occupation, the materials handled in the industry/occupation, the workplace practices adopted, the environment in which the work is carried out and the physical requirements of the work.

The incidence of workplace injury and illness in an industry is an indicator of the risks associated with working in that industry. The industries with the highest incidence of claims per 1000 employees in Victoria are manufacturing, wholesale trade, transport, postal and warehousing, arts and recreation services and construction, as shown in Chart 3.1.

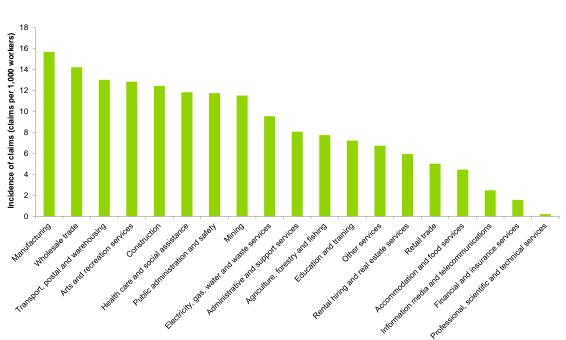


Chart 3.1: Incidence of workplace injury and illness claims in Victoria, by industry, 2014-15

Source: WorkSafe data; ABS, (2015), Labour Force, Australia, Detailed, Quarterly (ABS release no: 6291), November 2015.

The number of fatalities in an industry is another indicator of workplace risks. In Victoria, from 2006-07 to 2014-15, almost three quarters of workplace fatalities were from the following four industries: agriculture, forestry and fishing; construction; transport, postal and warehousing; and manufacturing.¹⁸

The level of risk associated with a particular hazard/industry can be assessed by determining the likelihood and consequences of harms relevant to the hazard/industry. If the likelihood and consequences of harms are low, then the associated hazard can be

¹⁸ This is broadly consistent with Australian workplace fatalities with over 70 per cent of workplace fatalities between 2003 and 2014 being from the same four industries. Source: Safe Work Australia, 2015, *Work-related traumatic injury fatalities, Australia, 2014,* Canberra.

classed as low risk. Conversely, if the likelihood and consequences of harms are high, then the associated hazard can be classed as high risk. This is shown in Table 3.1.

q	High	Moderate risk	High risk	High risk				
ikelihood	Moderate	Low risk	Moderate risk	High risk				
	Low	Low risk	Low risk	Moderate risk				
	Low		Moderate	High				
	Consequence							

Table 3.1: Assessing the level of risk

Source: Department of Treasury and Finance, 2014, Victorian Guide to Regulation, Toolkit 1: Purposes and types of regulation, Melbourne

For the purposes of this RIS, the likelihood and consequence of harms associated with the hazards and industries covered by the OHS Regulations were assessed. The results show wide variation in the type of harm, the number of employees potentially impacted and the timeframe for the harm being realised, which ranges from immediately (e.g. a fall) to 20-50 years after exposure (e.g. asbestos). Types of harms range from injuries and illnesses to fatalities and also include the potential for catastrophic events. An example of a catastrophic event is the chemical blast in August 2015 in Tianjin, China that killed 173 people and released toxic chemicals into the environment¹⁹.

The number and type of claims is an indicator of the risk that remains with the current risk control measures. It does not show the claims and fatalities that have been prevented by the OHS Regulations, which have been in place for many years. The number of claims also does not capture the potential for a catastrophic event and captures immediate harms better than those that develop over time.

High total claim numbers for a particular hazard, such as manual handling, can primarily reflect the large number of employees exposed to a hazard rather than the likelihood of an injury occurring. The incidence rate expresses the rate of injuries per 1000 employees and so provides a better indicator of the likelihood of an injury.

Information on the nature and extent of harms is provided in Table 3.2, including the number of work-related fatalities from 2007 to 2015. The number of fatalities in a year is variable so data is presented for several years rather than a single year. As a proxy for the severity of an injury, the average fully developed cost (FDC) of a compensation claim is used, as is also shown in Table 3.2.

¹⁹ The final death toll was reported as 173 on 12 September 2015 in the Guardian, refer www.theguardian.com/world/china

	No. standardised claims (2014-15)	No. fatalities (2007-2015)	No. employees at risk (2014-15)	Incidence of injuries and illnesses (2014-15)	Type of harm	Latency	Avg. fully developed claims cost (2014-15)	Data accuracy
Manual Handling	10,513	0	2,284,414	4.60	Injuries (musculoskeletal disorders)	Short	\$65,354	High
Construction	3,205	40	248,968	12.87	Injuries / fatalities / public safety	Short	\$75,951	Med ⁶
Plant and High Risk Work ¹	2,390	81	1,389,223	1.72	Injuries / fatalities	Short	\$69,327	High
Falls	1,469 ²	30	910,964	1.61	Injuries / fatalities	Short	\$63,838	Med ⁷
Noise	1,325	0	789,415	1.68	Illness (occup. noise-induced hearing loss)	Long	\$21,441	Low ⁸
Hazardous substances, scheduled carcinogens and lead	136	5	1,167,034	0.12	Injuries / illness (incl. cancer, asthma, temp. illness and lead palsy) / fatalities	Short- Iong	\$49,450	Med ⁹
Mines	46	1	4,218	10.90	Injuries / fatalities / catastrophic events	Short	\$39,729	Med ¹⁰
Asbestos	18 ³	24	1,448,789	0.01	Illness (cancer) / fatalities	Long	\$160,398 ⁵	Low ¹¹
Confined spaces	-	2	245,588	-	Injuries / fatalities	Short	-	Low ¹²
Major hazard facilities	0	0	11,400 ⁴	0.00	Potential catastrophic events	Short	\$0	High

Table 3.2: Nature and extent of harms, by OHS Regulation hazard area

Source: Data on claims, fatalities and average fully developed costs have been sourced from data provided by WorkSafe. Estimates of the number of workers in each hazard area were developed by Deloitte based on an analysis of the number of workers in the industry subdivisions relevant to each hazard area using ABS data: ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015.

Notes: This is an illustrative analysis based on the judgement of WorkSafe and Deloitte on how best to match WorkSafe claims data and ABS employment data with the OHS Regulation hazard areas. Cells where data are unavailable are marked with a dash. ¹Includes prescribed equipment covered under the EPS Regulations. ²Estimate based on the average annual number of claims over a seven year period as data for 2014-15 are not specifically available. ³Based on data for 2013-14. ⁴There are approximately 38 major hazard facilities in Victoria. The number of employees working at these facilities ranges from between 10-20 and 600+. Assuming an average of 300 employees per facility, the total number of workers is estimated at 11,400. ⁵Based on average cost over 2007-08 to 2013-14 as data for 2013-14 are not representative of the longer term average. ⁶An overlap exists with claims/fatality data from other hazard areas (e.g. falls). ⁷Data is not available on the costs of falls from above two metres. Estimate provided in this table is based on the average FDC of slips, trips and falls from all levels combined. ⁸Limited information is available on how many workers in Victoria are affected by excessive noise. ⁹A causation issue exists with drawing a link between chemical exposures and illness. ¹⁰An overlap exists with claims/fatality data from other hazard areas (in a confined space.

On the basis of the data presented in Table 3.2, an indicative analysis of likelihood and consequence was undertaken by hazard area, as shown in Table 3.3.

	Incidence (2014-15)	No. fatalities (2007-2015)	Likelihood ¹	Consequence ²
Manual Handling	4.60	0	Moderate	Moderate
Construction	12.87	38	High	High
Plant and High Risk Work ³	1.72	81	Moderate	High
Falls	1.61	30	Moderate	High
Noise	1.68	0	Moderate	Low
Hazardous substances, scheduled carcinogens and lead	0.12	5	Low	High
Mines	10.90	1	High	High
Asbestos	0.01	24	Low	High
Confined spaces	0.00	0	Low	High
Major hazard facilities	0.00	0	Low	High

Table 3.3: Indicative analysis of likelihood and consequence by hazard area

Source: WorkSafe and Deloitte Access Economics analysis based on data presented in Table 3.2. Notes: ¹Likelihood is classified as High when the incidence of claims is above 5, Moderate when 1-5 and Low when less than 1. ²Consequence is classified taking account of fatalities, the potential for catastrophic events and the fully developed claim cost (FDC). The FDC is an indicator of the severity of the injury. Consequence is classified as High in cases where there are one or more fatalities or where there is potential for a catastrophic event, Moderate when FDC is above \$50,000 and Low when FDC is below \$50,000. ³Includes prescribed equipment covered under the EPS Regulations.

Based on the above assessment of likelihood and consequence, each of the hazard areas covered by the OHS Regulations can be classed as follows:

- High risk: construction, mines, plant and high risk work and falls
- Moderate risk: manual handling, hazardous substances, scheduled carcinogens and lead, asbestos, confined spaces and major hazard facilities
- Low risk: noise.

A depiction of the risk assessment by hazard and hazardous industry is provided in Figure 3.2. $^{\rm 20}$

²⁰ The classification of each hazard area within the categories of high, medium and low by likelihood and consequence is based only on the data from the *Indicative analysis of likelihood and consequence by hazard area* in Table 3.3. Within each square, the distance between each hazard is an indicative depiction of the differences in the incidence of claims and number of fatalities.

Regulatory Impact Statement for proposed Occupational Health and Safety Regulations 2017 and Equipment (Public Safety) Regulations 2017

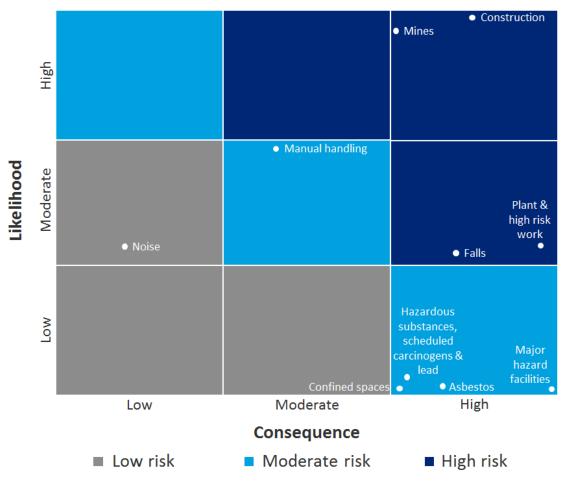


Figure 3.2: Indicative risk assessment by hazard and hazardous industry

Source: WorkSafe and Deloitte Access Economics analysis.

3.2.3.2 Workforce changes

As discussed in the preceding section, the risks faced in the workplace vary. As Victoria's workforce changes, the workplace risks faced by employees also change. The current composition of Victoria's workforce by industry indicates half of the workforce is employed in five key industries: health care and social assistance, retail trade, manufacturing, professional, scientific and technical services, and construction, as shown in Chart 3.2.

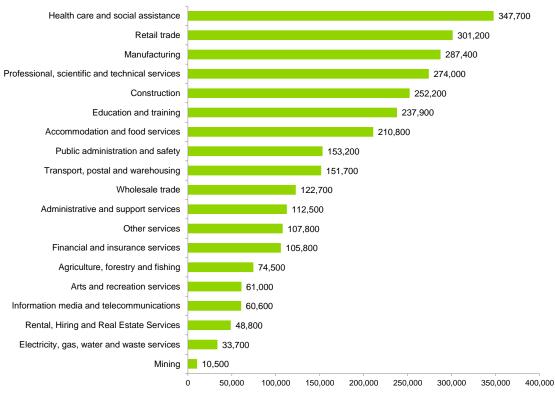


Chart 3.2: Victorian employment by industry (ANZSIC), May 2015

Victoria's workforce has undergone significant change over recent years. For example, over the past ten years the number of people in Victoria's manufacturing industry has declined by about 27,000, and is forecast to further decrease by approximately 70,000 over the next ten years.²¹ As the manufacturing sector has been contracting over the past ten years, service-based sectors have been increasing. Chart 3.3 reflects a subset of industries which are experiencing the greatest rate of change in their number of employees.

Source: ABS, Labour Force, Australia, Detailed, Quarterly (ABS release no: 6291), November 2015.

²¹ Deloitte Access Economics data (forecasts); ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015 (historical data).

Regulatory Impact Statement for proposed Occupational Health and Safety Regulations 2017 and Equipment (Public Safety) Regulations 2017

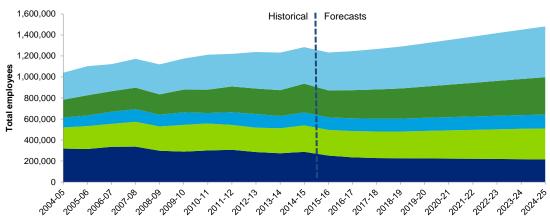


Chart 3.3: Historical and forecast change in employment by industry in Victoria

Manufacturing Construction Retail trade Professional, scientific and technical services Health care and social assistance

Source: Deloitte Access Economics data (forecasts); ABS, Labour Force, Australia, Detailed, Quarterly (ABS release no: 6291), November 2015 (historical data).

It is possible that some of the changes in employment by industry have contributed to the downward trend in injury and illness claims over the decade (see Section 3.2.3.3 below). For example, the manufacturing industry, where employment is declining, has historically had a higher incidence of injury, illness and death than the Victorian average.

Aggregate changes in employment by industry alter but do not eliminate the health and safety risks faced by Victorians. In addition to the known hazards, there are also emerging hazards that are not yet completely understood. Recent research (for example, a long term Canadian study²²) is providing compelling evidence that sedentary behaviour, common in office jobs, increases rates of premature mortality. 'New' hazards, such as stress are also becoming prominent.

In addition to the shifts in workforce between industries, there have also been a range of macro-level changes in Victorian workplaces since 2007 which can impact on the health and safety risks present in workplaces. These changes which are expected to continue into the future, include more part time and casual employees as a percentage of the workforce and more home-based employment.

Forecast changes in industry employment are reflected in the estimates of workplace injuries, illnesses and fatalities under the base case discussed in Chapter 4.

3.2.3.3 Claims and fatalities

Recent trends

Workplace injuries and illness in Victoria, as measured by the number of 'standard workers' compensation claims', have steadily decreased over the past ten years, both as a total

²² Katzmarzyk, P., Church, T., Craig, C., & Bouchard, C., (2009), Sitting Time and Mortality from All Causes, Cardiovascular Disease, and Cancer. Medicine & Science In Sports & Exercise, 41(5), 998-1005. doi:10.1249/mss.0b013e3181930355

number, and as an incidence rate. This continued the downward trend experienced in the previous decade, albeit at a slower rate. There was a three per cent decrease in compound annual terms from approximately 12 injuries per thousand workers in 2004-05, to less than nine injuries per thousand employees in 2014-15, as shown in Chart 3.4. This trend of decreasing incidence of workplace injuries has been experienced across all industries other than financial and insurance services.²³

It is important to note that the below data does not include 'minor claims'²⁴ made over that time period.

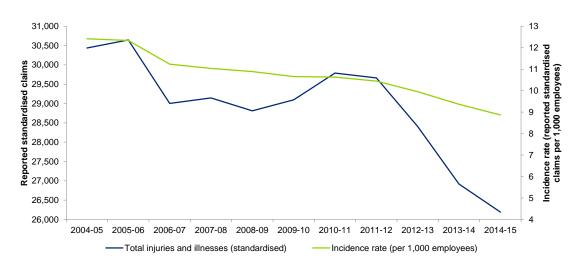


Chart 3.4: Victorian workplace injuries and illnesses, 2004-05 to 2014-15

Source: WorkSafe data; ABS, Labour Force, Australia, Detailed, Quarterly (ABS release no: 6291), November 2015

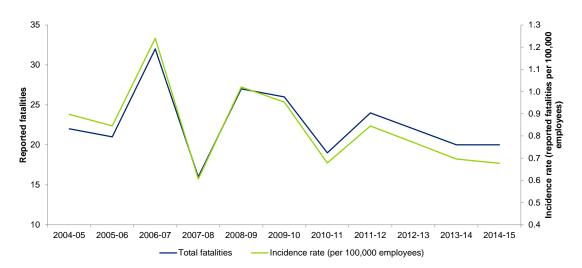
This trend of decreasing workplace injuries and, implicitly, increasing workplace safety, is also reflected in the number of reported fatalities. Though much more volatile than the data on workplace injuries, there was a decrease in the number of workplace fatalities from 22 in 2004-05 to 20 in 2014-15, as shown in Chart 3.5. The incidence of workplace fatalities has also reduced from 0.90 fatalities per 100,000 employees in 2004-05 to 0.68 fatalities per 100,000 employees in 2014-15, a decrease of 2.5 per cent per annum.

²³ The number of workplace injuries in the financial and insurance services was already very low at 176 standardised claims in 2004-05. In the period displayed on Chart 3.4, the number of standardised claims for financial and insurance services was at its highest in 2008-09 at 242 and finished at its lowest in 2014-15 at 168.

²⁴ Minor claims are claims that are under the employers excess, which is currently confirmed as the workers first ten days off work and the first \$667 in medical and like expenses (indexed from last year's fee of \$660).

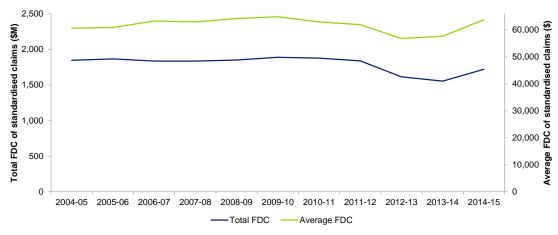
Regulatory Impact Statement for proposed Occupational Health and Safety Regulations 2017 and Equipment (Public Safety) Regulations 2017

Chart 3.5: Victorian workplace fatalities, 2004-05 to 2014-15



Source: WorkSafe data; ABS, *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015.

The FDC of injuries captures the financial impact of workplace injuries and can be used as a proxy for the severity of injury by assuming that higher cost claims correspond with more severe injuries. The total FDC of workplace injury claims decreased over the period from 2004-05 to 2014-15 and the average FDC of workplace injury claims increased slightly, as shown in Chart 3.6. Overall there has been no substantial change in either total or average FDC, which suggests that the severity of injuries over the period has remained at approximately the same level.





Source: WorkSafe data; ABS, Consumer Price Index (ABS release no: 6401), June 2015.

Current claims and fatalities

Health and safety risks continue to be real and present in Victoria's 275,000²⁵ plus workplaces. While the rate of workplace incidents has decreased, each year a significant number of workplace illnesses, injuries and fatalities are reported across all industries.

In 2014-15, there were approximately 26,191 reported standard workers' compensation claims and 0.68 fatalities per 100,000 employees.

The mechanism of injury refers to the action, exposure or event that directly caused an injury or illness.²⁶ The majority of injuries are caused by body stressing (40 per cent), falls, slips and trips (21 per cent), being hit by moving object (14 per cent) and mental stressors (11 per cent), as shown in Chart 3.7. An analysis of how the composition has changed since 2006-07 indicates no significant changes. However, there were some slight increases in claims for mental illness and falls, slips and trips as a share of the total, and a slight decrease in body stressing.

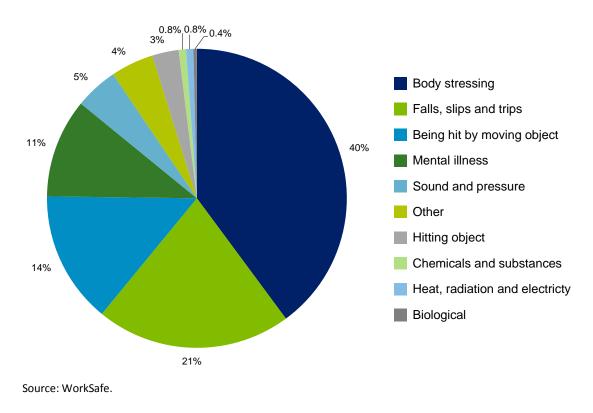


Chart 3.7: Composition of injury and illness claims, by mechanism of injury, 2014-15

²⁵ WorkSafe data. The number reflects the number of workplaces operated by employers who have registered for workers' compensation insurance in Victoria. As a result, it does not capture employers who are not registered under Victoria's scheme because they fall under the remuneration threshold, are self-insured or have taken workers' compensation insurance with the Commonwealth Government's scheme, Comcare.

²⁶ Safe Work Australia, (2008), *Type of Occurrence Classification System (TOOCS) Third Edition*, May 2008; WorkSafe, *VCODE The Nature of Injury/Disease Classification System for Victoria Version 1.2*

3.2.3.4 State and territory comparison

Victoria continues to be the safest state in which to work, providing a range of social and economic benefits. For example, Victoria experienced its lowest injury claims rate on record and lowest injury rate in Australia in 2013-14.

When comparing occupational health and safety outcomes, it is evident that there has been a decrease in the number of serious claims across all states and territories over recent years. At the same time, Victoria has consistently had the lowest incidence of serious injury and illness claims, which indicates that Victoria's OHS framework is relatively robust. Chart 3.8 provides a comparison of serious claims across the states and territories from 2008-09 to 2013-14.

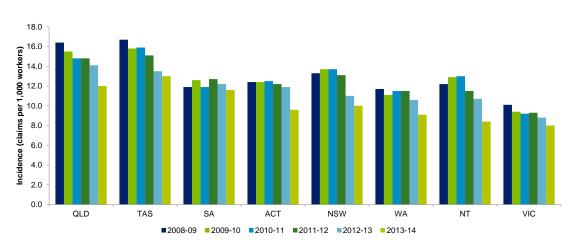


Chart 3.8: State and Territory comparison of serious injury and disease claims 2008-09 to 2013-14

Source: Safe Work Australia, Comparative Performance Monitoring Report 17th Edition. Notes: This chart should be considered in the context of several explanatory notes, these are provided in Appendix D – Explanatory notes on comparative performance.

The differences in injury and illness claims between the states and territories indicate the effectiveness of the various different regulatory systems. The adoption of the model WHS laws, which draw heavily on the Victorian laws, may see other states and territories improve their performance and reduce incidence of injury and illness claims over time, in line with Victoria. It is important to note, however, that other drivers of state and territory differences exist, including differences in workforce composition and industries.

3.2.4 Cost of the problem

Work related injuries, illnesses and fatalities are imposing significant economic and social impacts on Victoria. Key costs include:

- Treatment and support services expenses including medication and hospitalisation
- Compensation, including statutory and common law settlements
- Pain and suffering to affected employees/individuals, their families and carers
- Loss of earnings to affected employees
- Productivity losses to the employer.

Due to the intangible nature of some of the impacts of injury, illness and death, it is not possible to quantify all the costs, and especially social costs. However, estimates can be made of the economic costs resulting from workplace injury, illness and death.

The cost of work-related injury and illness in Victoria has been estimated at \$14.6 billion in 2012-13 in a recent Safe Work Australia report.²⁷

3.3 Need for government intervention

There is a clear rationale for government intervention in occupational health and safety to address the management of community risk and to address the drivers of risks that exist in the workplace as discussed in Section 3.2.2. Management of community risks and limitations of insurance and other compensation mechanisms are discussed in the following section.

3.3.1 Management of community risk

Generally speaking, government intervention can be justified on the basis of managing public risk. This type of intervention is referred to as 'protective regulation' and can include measures to promote public health and safety, reduce the risk of harm to vulnerable sections of the community and impose restrictions on the practice of certain occupations and professions.

In light of the various risks to employees outlined in Section 3.2, there is a strong case for government intervention to manage these risks. In the context of the broader framework for addressing occupational health and safety risks, including the existence of the general duties on employers under the OHS Act, the specific case for regulation is the need to supplement the general duties with a specific regulatory response, including mandating certain outcomes, prohibiting certain activities or providing permission subject to a specified requirement. The use of regulation in such cases can be justified if the hazard in question poses a significant risk to employees and the general public, the risk and means of control are well known and the benefits of the regulatory intervention outweigh the costs.

There are also links between regulating occupational health and safety and public risks. For example, persons other than workers and employers, such as customers, can be exposed to OHS risks at a workplace. One of a government's primary responsibilities to its constituents is to provide a safe and low risk environment in which to live and work. By having strong safety provisions in OHS and EPS Regulations, the Victorian Government will be achieving these objectives.

3.3.2 Limitations of insurance and other compensation mechanisms

The Victorian Government has established insurance and compensation mechanisms to address incidents of workplace injuries, illnesses and fatalities, as discussed in Sections 2.3

²⁷ Source: Safe Work Australia, (2015), *The cost of work-related injury and illness for Australian employers, workers and the community: 2012-13,* Canberra.

and 2.4. These two mechanisms however, provide only a limited deterrence against unsafe practices and weak incentives to improve risk control measures, particularly for risks that have a long latency like asbestos.

These mechanisms partially address the economic losses incurred from the injury, illness or fatality of an employee and therefore go some way to address the negative externalities previously discussed. However, the insurance price signal provides a weak incentive for small businesses to invest in safety measures as they face a standardised industry wide rate that does not tend to vary in line with their claims experience. Larger employers however, have a stronger incentive as they typically face a premium that is affected by their claims experience.²⁸

3.4 Risk of non-intervention

In the absence of the OHS Regulations, the default regulatory mechanism would be the general duties under the OHS Act. Although employers and employees will still have a range of incentives to address safely issues (as discussed in Section 3.2.1 above), sole reliance on the general duties in the absence of OHS regulations poses a number of risks, including:

- Without specific direction, such as that set out in regulation, there is a risk that relying only on the general duties could result in uncertainty about what constitutes compliance and in some cases could encourage either over- or under-compliance, which may lead to either higher costs or higher injuries
- Without such direction, employers would have to determine for themselves at their own cost when and how to directly identify, assess and control these risks
- Market imperfections, particularly in relation to information, would remain unaddressed and this would pose a range of risks. For example, a person's evaluation of risk may be distorted, preventing them from implementing risk control measures that protect their employees' health and safety.

It may be possible to address some of these risks through expanded enforcement activity and the provision of additional guidance and information. However, these are unlikely to provide the same safety benefits and the costs could be prohibitive.

Ultimately, these risks would have the potential to result in an increase in the number of avoidable work-related injuries, illnesses and fatalities, and increased costs to business. In the worst case scenario, work-related injuries, illnesses and fatalities would return to levels experienced in the early 1990s when the incidence was approximately double the current rate.²⁹ Further, these additional injuries, illnesses and fatalities would result in substantial costs to society, including to the health system and workforce productivity generally. It is

²⁸ Typically insurers identify small employers with similar risk characteristics to form groups that are as homogeneous as possible. These groups are then analysed together based on their historical claims experience and enable a price to be set. This ensures the price is calculated based on a sufficient volume of credible claims experience. Larger employers on the other hand would typically be experience-rated and priced based on their claims experience. This method essentially blends the actual and expected loss experience in the premium calculation. The larger the employer and the more credible the employer's own experience, the less reliant is the premium on the expected experience. This approach smooths out the volatility in claims experience.

²⁹ WorkSafe injury and illness claims data (historic).

likely that, as a result of the existing safety infrastructure, public awareness and workplace cultures, safety outcomes would not immediately devolve to levels similar to pre-regulation but would progressively deteriorate.

3.5 Objectives of government intervention

The Victorian Government believes employers and employees all have a fundamental right to a safe and secure working environment.³⁰ This is consistent with the objectives outlined in the OHS and EPS Acts and the principles in the OHS Act. The overall objective of government intervention in respect of health and safety in the workplace is therefore to:

- 1. Prevent injuries, illnesses and fatalities in the workplace
- 2. Prevent a serious incident from occurring and impacting on the safety of people in the surrounding area of a workplace such as a major hazard facility or mine.

One of the ways the Victorian Government aims to achieve this objective is by remaking the OHS and EPS Regulations in 2017. The regulations contribute to the overall objectives by specifying how to comply with the overarching duties in the Acts in respect of in specific hazardous situations or industries, or in places where particular prescribed equipment is used. These regulations are complemented by a range of other measures as outlined in Chapter 2 of this RIS.

As the regulations are ultimately created to support the OHS and EPS Acts, the primary purpose is aligned with the objectives of these Acts and the Regulations themselves.³¹

The achievement of the primary purpose will also be guided by the principles detailed in Section 3.2.1 of this RIS.

The proposed Regulations also provide for the levying of fees regarding OHS and EPS related licensing, registration and exemption applications. In this context, the purpose of the proposed fees is to fully recover the reasonable costs incurred by WorkSafe in assessing such applications. This purpose will also be guided by principles detailed in Chapter 18 of this RIS.

Under Section 6 of the EPS Act, the objectives of the EPS Act are -

- To secure the health and safety of persons in relation to the design, construction, manufacture, installation, erection, alteration, maintenance, repair and use of prescribed equipment
- To protect people generally against risks to health or safety in relation to prescribed equipment
- To eliminate, at the source, risks to health and safety of persons in relation to the design, construction, manufacture, installation, erection, alteration, maintenance, repair and use of prescribed equipment.

³⁰ Victorian Labor, (2014), *Victorian Labor Platform 2014*, Melbourne, p.22

 $^{^{31}}$ Under Section 2(1) of the OHS Act, the objectives of the OHS Act are –

[•] To secure the health, safety and welfare of employees and other persons at work

[•] To eliminate, at the source, risks to the health, safety or welfare of employees and other persons at work

[•] To ensure that the health and safety of members of the public is not placed at risk by the conduct of undertaking by employers and self-employed persons

[•] To provide for the involvement of employees, employers, and organisations representation those persons, in the formulation and implementation of health, safety and welfare standards having regard to the principles of health and safety protection set out in Section 4

4 Aggregate analysis

This chapter assesses the impacts of the OHS Regulations from an overall perspective and includes an overarching picture of the options considered, the costs and benefits of those options, a description of the preferred option and a description of the impacts of the preferred option on small business and competition.

Key points:

This RIS assesses a range of options to achieve the objective of upholding employers' and employees' right to a safe and secure working environment. Options assessed are:

Base case - General OHS Act duties would apply but with no regulations

- 1. Remake existing OHS Regulations the OHS Regulations remade with no changes
- **2.** Select improvement changes Select improvement changes A number of changes to improve the effectiveness of the regulations
- **3.** Increased national consistency Increased national consistency Select changes to increase consistency with the national model Work Health and Safety (WHS) Regulations 2011 (model WHS Regulations), including a number of changes that are also included in Option 2.

A number of other options were also considered, including an option primarily focussed on reducing regulatory burden, an option involving the use of market-based instruments and an option involving full adoption of the model WHS Regulations. However, for reasons outlined below, these options were not pursued.

While all options modelled have positive net benefits when compared with the base case, Option 2 presents the highest net benefits for society, at \$11.81 billion compared with \$11.72 billion for Option 1 and \$2.16 billion for Option 3. The costs to business under Option 2 are approximately \$84 million less over ten years than under Option 1.

Relative to the current experience of the large majority of employees and employers, the preferred option will not result in significant changes. However, some businesses will have to adjust to altered requirements in some areas and this will result in costs to some and savings to others.

4.1 Identification of feasible options

4.1.1 Preliminary analysis of options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives outlined in Chapter 3 and ultimately to reduce the net cost and incidence of work-related injuries, illnesses and fatalities. This included approaches involving the reduction in regulatory burdens on duty holders, market-based instruments, the adoption of model WHS Regulations and the adoption of a range of changes to address

specific issues identified by stakeholders with the current OHS Regulations. Consideration was given to the extent to which different approaches would be appropriate, proportionate and workable.

This analysis resulted in a number of options being selected for inclusion in this RIS. These options are described in greater detail in Section 4.1.2. Other options that were considered but not pursued include:

- Primary focus reduction in regulatory burdens on duty holders
- Use of market based instruments
- Full adoption of the model WHS Regulations.

Reasons for not including these three options in this RIS are discussed below.

Other more detailed changes specific to each hazard area were also considered by WorkSafe but not progressed. These are outlined separately in each of the chapters in Part Two of this RIS.

4.1.1.1 Primary focus regulatory burden reduction option

Consideration was given to including an option primarily focused on reducing regulatory burdens on duty holders that would do so without reducing safety standards. However, upon reviewing the possibilities for such an option, no clear areas for reform could be identified beyond some minor changes that are included under the proposed Option 2 (Select improvement changes).

The key reason why no clear areas for reform could be identified is that a process has only recently been completed to identify and implement such reforms. In particular, WorkSafe undertook a major red tape reform identification project in 2013-14 which culminated in the OHS Amendment Regulations, which came into effect on 1 July 2014. These amendments improved the workability of the regulations and reduced compliance costs for business without reducing safety standards. The most significant changes were to:

- Increase the threshold for principal contractor duties from \$250,000 to \$350,000
- Remove the requirement for employers to make reasonable inquiries about the currency of a hazardous substances material safety data sheet if it was received more than five years ago and has not been reviewed in the last five years
- Remove the provision requiring an employer to provide 'information, instruction and training' and rely on the OHS Act duty to provide 'information, instruction, training or supervision'
- Remove the plant item registration requirements (prescribed in Part 2 of Schedule 2 of the OHS Regulations)
- Remove record keeping requirements for employers to make a record containing details of any construction induction cards in relation to each person employed to perform construction work and retain that record while that person is employed
- Clarify that operators of tractors fitted with a forklift attachment do not require an associated forklift licence.

As part of that process, a range of other, and in some ways more significant, regulatory burden reduction options were also considered but were ultimately rejected as they would have compromised safety standards.

As WorkSafe has very recently amended the OHS Regulations to reduce regulatory burdens on duty holders, and that no further realistic changes beyond those outlined under Option 2 (Select improvement changes) can be identified, an option to significantly reduce regulatory burdens on duty holders is not included in this RIS.

It should be noted however that, although Option 2 (Select improvement changes) is not solely aimed at reducing regulatory burdens, it still incorporates a general theme of reducing regulatory burdens on duty holders while not reducing safety outcomes.

4.1.1.2 Market-based instruments

Consideration was also given to the inclusion of an option involving the use of marketbased instruments. However, upon reviewing the possibilities for such an option, no viable approaches could be identified.

Importantly, a market-based approach to managing occupational health and safety risks already exists to a certain extent in the form of the Victorian workers' compensation insurance scheme. This is akin to a market-based instrument as it provides financial incentives for employers to manage health and safety risks in the workplace.³² Nevertheless, consideration was given as to whether any other market-based approaches could be adopted in addition to Victoria's workers' compensation insurance scheme.

The Victorian Guide to Regulation, Toolkit 1, gives the following examples of market based instruments: taxes on undesirable activities, subsidies for desirable activities, user charges, tradeable permits and procurement. The common use of each is outlined in Appendix C along with a short rationale on the appropriateness or otherwise of each as a form of intervention to address the existence of hazards in key areas of Victorian workplaces.

On the basis of the discussion in Appendix C, there are no market-based approaches beyond worker's compensation insurance that are feasible or appropriate to meet the objectives of the OHS Regulations. Accordingly, no such option is included in this RIS.

4.1.1.3 Full adoption of the model WHS Regulations

In addition to the above two options, the full adoption of regulations used in other Australian States and Territories was considered. Except in the case of Western Australia³³, other Australian States and Territories have implemented the national model WHS Regulations, thus for Victoria to align itself with other state and territories would mean adoption of the model WHS Regulations.

³² In theory, employers with a good track record face lower insurance premiums and vice versa. In practice, however, this relationship is less evident for smaller employers as their premiums are set based on the historical performance of groups of similar employers rather than the individual employer. Nonetheless, premiums for larger employers do typically take into account their own historical performance (or claims experience) so a strong financial incentive exists for these larger employers to manage health and safety risks.

³³ Western Australia is currently examining options to implement the model WHS Regulations.

Adopting the model WHS Regulations is not considered a feasible option as full adoption would also entail adoption of the model WHS Act which was outside the scope of this review. It would also be contrary to the Victorian Government's stated policy position that it will not be adopting the model work health and safety laws in their current form.³⁴

Although consideration is not given to full adoption of the model WHS Regulations, selective adoption of parts of the model WHS Regulations has been considered as part of Option 2 (select improvement changes) and Option 3 (increased national consistency). Any parts of the model WHS Regulations that may reduce safety standards were not included in the selective adoption.

4.1.2 Options considered in this RIS

The Base case – "general Act duties, no regulation" scenario is included in the RIS for comparison purposes. Three options identified as viable and appropriate for the purposes of meeting the Government's identified objectives are as follows:

- Option 1 remake existing regulations with no changes
- Option 2 select improvement changes to improve the effectiveness of the regulations
- Option 3 increased national consistency. Select changes to increase consistency with the model WHS Regulations, including a number of changes that are also included in Option 2

These options are described below.

4.1.2.1 Base case – "general Act duties, no regulation" scenario

The base case is a counter-factual scenario used in cost benefit analyses to provide a common point of comparison for all options. In the case of sunsetting regulations, the base case is usually defined as the scenario in which the regulations lapse.³⁵ Defining the base case in this way ensures that the existing regulations can be evaluated in terms of their effectiveness in achieving the policy objectives during the life of the regulations. This is also important in terms of explaining to stakeholders why the regulations continue to be needed beyond the general duty in the OHS Act.

In the context of this RIS, the base case represents a situation where the OHS Regulations and the EPS Regulations would lapse and not be remade. This would in practice mean that the prescription in the regulations about how employers should uphold a duty of care to their employees and in some cases to members of the public would not exist. However, due to the existence of general duties under the OHS Act and the EPS Act, employers would still have a general duty of care to their employees and in some cases to members of the public.

The removal of regulations would likely have adverse effects, even if the OHS Act remained in place. This is largely because the lack of guidance about how duty holders should uphold their duty of care under the OHS Act would lead to uncertainty among duty holders. This uncertainty would result in duty holders spending significant amounts of time interpreting

 $^{^{34}\} http://www.worksafe.vic.gov.au/laws-and-regulations/occupational-health-and-safety/national-work-health-and-safety-reform$

³⁵ Government of Victoria, (2014), Op cit., p. 23.

what the duties mean for them and identifying what measures would need to be put in place to uphold them. Added to the time and cost, would be the cost of external legal advice in relation to these matters. This cost would be duplicated across businesses and would result in varying approaches being adopted to uphold the general duties under the OHS Act.

This uncertainty stemming from broad and varied interpretation of duties under the OHS Act would also result in a greater number of legal disputes over WorkSafe enforcement actions (e.g. internal reviews, notices and prosecutions). There were 137 court cases instigated by Worksafe in 2014 and this number would be expected to increase significantly in the absence of the OHS Regulations.³⁶ Indeed, it is possible that, in the absence of the specific information on how to comply provided in the OHS Regulations, most attempts to penalise an employer for failing to uphold their duties under the OHS Act would be tested in the courts. This would add further cost to duty holders.

In addition to the costs associated with uncertainty, sole reliance on broad duties under the OHS Act would likely result in changes to compliance levels and associated costs. On the one hand, given the absence of regulations and the lack of specificity on what is required to comply, some employers may spend more to reduce risk close to zero and avoid legal action or reputational damage. This may occur in cases where monopolies exist (e.g. provision of government services and utilities), but would be less likely to occur in commercial markets due to the cost disadvantage of doing so.

On the other hand, sole reliance on broad duties under the OHS Act may result in some employers, either intentionally or unintentionally, forming a relaxed interpretation of what the duties mean for them and what needs to be put in place to uphold them. This may result in some duty holders failing to identify hazards and/or failing to control risks in certain areas with implications for the safety of employees and/or the public. The extreme of this would be a situation where, in an attempt to cut costs, some employers would immediately cease to comply with the OHS Regulations once they lapsed with serious implications for employee safety.

An example of how safety outcomes can be worse in the absence of regulation is provided through a comparison of historical mine fatality rates. In the early 1900s when there were no statutory OHS laws³⁷, annual fatality rates in Australian mines, were around 133 per 100,000 workers.³⁸ In the early 1980s, after Robens style laws had been introduced but under prescriptive regulations, mines in Western Australia had an average annual rate of 100 fatalities per 100,000 workers.³⁹ In the early 21st Century, under current OHS laws and

³⁶ Victorian WorkCover Authority, (2015), VWA Annual Report, Melbourne (see page 104).

³⁷ Common law duties of care for employers were established in the mid-19th Century.

³⁸ Year Book Australia 1910

http://www.abs.gov.au/ausstats/abs@.nsf/featurearticlesbytitle/6893596390A01028CA2569E3001F5555?Open Document

³⁹ WA Department of Mines and Petroleum (2014) Fatal accidents in the Western Australian mining industry 2000-2012.

regulations, Australian mining fatality rates have fallen to around 3.8 per 100,000 workers. $^{\rm 40}$

This shows that, under a statutory duty of care without effective regulations, fatality rates were not all that different from what they were under common law. However, under essentially the same laws, but with effective regulations, fatality rates have plummeted. This does not necessarily mean that all of the reduction in fatality rates was due to regulatory reforms, and this highlights the difficulty of isolating the impact of the OHS Regulations from other factors in the workforce. On the one hand, it is possible that some major new technologies were widely adopted which may have contributed to the reduction in fatality rates. On the other hand, if new technologies were adopted, it may well be precisely because the Robens reforms for the first time gave firms an incentive to adopt cost-efficient safety technologies.

As part of the one-to-one interviews conducted by Deloitte, businesses were asked about the potential impacts under a hypothetical situation where the OHS Regulations were allowed to lapse without being re-made in 2017. Some of the views expressed by individual businesses include:

- Others in the industry would cease to invest in safety in the absence of the OHS Regulations
- The protection of employee safety is important and a priority for the business, so would always seek to invest in safety
- The OHS Regulations provide useful information and it would be harder to do business without this
- Costs would increase in the absence of the OHS Regulations.

Overall, it is reasonable to assume that, if the current OHS Regulations and EPS Regulations lapsed and were not re-made, this would result in significant uncertainty among duty holders and a range of associated costs. It would also result in some employers failing to protect their employees with implications for the health and safety of Victoria's workplaces. However, as most duty holders already have in place protections under the current regulations, the impact of this would not be immediate; rather it would be gradual as the current regulations become progressively more and more out of date over time.

4.1.2.2 Option 1 – remake existing regulations

The inclusion of the status quo option in this RIS provides for an evaluation of the effectiveness of the current regulations which is important in the context of sunsetting regulations. Under Option 1, the existing regulations would be re-made in their current form. This would effectively mean the continuation of the 2007 OHS Regulations for another ten years.

Under the status quo scenario, the slight downward trend in workplace injuries, illnesses and fatalities experienced over the last decade would be expected to continue into the

⁴⁰ SafeWork Australia (n.d.) Mining Fact Sheet, available online http://www.safeworkaustralia.gov.au/sites/SWA/about/Publications/Documents/432/Mining-Fact-Sheet-2011-12.pdf

future. However, issues identified by stakeholders in the lead up to preparation of this RIS would remain unresolved and may result in growing costs to employers and employees.

4.1.2.3 Option 2 – select improvement changes

Option 2 incorporates a number of changes to improve the effectiveness of the regulations informed by WorkSafe's guiding principles. This option also maintains the 2014 red tape reduction amendments (OHS Amendment Regulations 2014) made to the current OHS Regulations which are also included in Option 1. WorkSafe's guiding principles include removing duplication, improving enforceability, consolidating regulations where practical, improving consistency and predictability, providing flexibility where possible, and ensuring proportionality. The proposed changes were developed by WorkSafe and were informed by input from stakeholders as part of the OHS Regulations Reform Stakeholder Reference Groups held by WorkSafe between 2013 and 2015.

The proposed changes are wide and varied and cut across most of the hazard areas in the OHS Regulations. These proposals range from minor changes in wording to improve clarity through to more significant changes. The proposed changes in these areas are outlined in detail in Part Two of this report under each of the hazard-specific chapters. A complete list of changes is provided in Appendix A.

In addition to those changes considered in the hazard specific chapters, a number of other changes were considered that cut across areas. There are listed below.

Adopting a generic hierarchy of control and generic risk control measures provisions

This proposal was considered as an overarching issue affecting multiple parts of the OHS Regulations. Most parts of the OHS Regulations contain a provision that sets out the ways an employer must control risk under that part. Employers must proceed through a hierarchy of risk control measures in cases where a risk cannot be eliminated, in order to reduce risk so far as is reasonably practicable. The ways of controlling risk are ranked from the highest level of protection and reliability to the lowest.

Different parts of the OHS Regulations contain various hierarchies of control. The majority contain a hierarchy of control with a high degree of commonality. It works in the following order:

- 1. Substitution with something giving rise to a lesser health and safety risk; isolation; engineering controls; or any combination of these three types of controls. These options are equivalent, that is, they are all considered to provide the highest level of protection and reliability
- 2. Administrative controls
- 3. Personal protective equipment (PPE).

Consideration was given to developing a standard hierarchy of control provision that could apply to the various parts of the OHS Regulations following the approach set out above. It was thought that a generic hierarchy of control and risk control provisions could improve readability, simplify compliance and reduce duplication across the regulations. However, further review of the proposal identified that this would not be the case as the generic provisions would still need to be accompanied by specific requirements for some chapters of the regulations. As the expected benefits of a generic hierarchy of control and risk control measures would not be realised this approach was not pursued.

Other cross cutting provisions

In addition to the generic hierarchy of control and review of risk control provisions, consideration was also given to a number of approaches in the model WHS regulations that cut across multiple parts of the regulations. This included consideration of whether to adopt duties in relation to general workplace facilities, generic hazard identification duties, generic provisions outlining the management of risks to health and safety, generic information training and instruction duties, a requirement to provide first aid equipment, and duties relating to managing the risk of falling objects. These were not pursued as it was considered that the risks these regulations were attempting to address are already adequately addressed in Victoria by the OHS Act and regulations.

4.1.2.4 Option 3 – increased national consistency

Option 3 involves a number of changes to the OHS Regulations to achieve greater national consistency within the scope of the OHS Act, but without a diminution in health and safety. The proposed changes are wide and varied and cut across most of the hazard areas in the OHS Regulations. The proposed changes are summarised as follows:

- Broaden the scope of fall prevention regulations
- Make the plant design registration process an approval scheme
- Introduce an absolute duty to have and test emergency plans
- Prescribe a duty to provide an adequate level of first aid
- Prescribe a requirement to control the risk of falling objects
- Introduce a general requirement concerning the effective communication for remote or isolated workers
- Require the preparation of an asbestos management plan
- Introduce requirements concerning electrical safety in hostile operating environments

 residual current devices
- Introduce a licensing regime for independent asbestos assessors
- Reduce the value of the principal contractor duty threshold from \$350,000 to \$250,000
- Change provision for persons in training to carry out high risk work at a workplace
- Include cyclophosphamide as a scheduled carcinogen requiring a licence
- A range of other changes that are also proposed under Option 2 (Select improvement changes).

These changes are outlined in detail in Chapter 19.

As noted in 4.1.1.3, an option involving full alignment with the model WHS Regulations has not been pursued as it is contrary to Victorian Government policy.

4.2 Aggregate cost benefit analysis

4.2.1 Base case – "general Act duties, no regulation" scenario

The base case is defined as the scenario in which the OHS Regulations lapse in June 2017 and are not re-made. Importantly, the Victorian Government is not proposing to terminate the OHS Regulations in 2017. Rather, this scenario has been developed as a point of comparison, or counter-factual, for the costs and benefits under Options 1, 2 and 3. This is standard practice when preparing RISs for sunsetting regulations.

Because the "general Act duties, no regulation" scenario is not actually observable, it means that the costs and benefits are difficult to measure, and any attempts to do so necessarily relies on quantifying estimates with a range of assumptions.

For the purposes of this RIS, a "top-down" approach to estimating cost projections under this scenario was developed. These costs were broken into three categories:

- Costs to society (including injured employees)
- Costs to employers
- Costs to government.

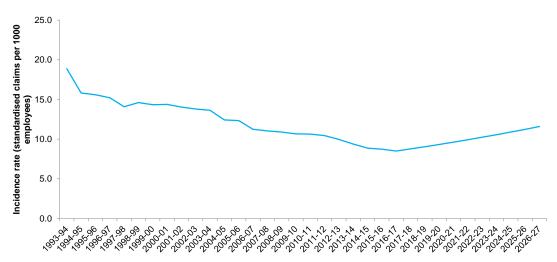
4.2.1.1 Costs to society

If the OHS Regulations lapsed and were not re-made in any form, work-related injuries, illnesses and fatalities would likely gradually increase above current levels and this would result in increased costs to society.

In estimating the extent to which these work-related injuries, illnesses and fatalities would increase, it was assumed that the average annual rate of decline experienced over the period from 1993-94 to 2014-15 would be reversed. Further, it was assumed that injuries, illnesses and fatalities would increase at the same average annual rate over the ten-year period of the analysis.

In undertaking this analysis for injuries and illnesses, adjustments have been made for changes in industry composition and workforce over time. 1993-94 was chosen as the starting point as data following this period is not affected by changes to reporting made between 1985 and 1992 (e.g. journey-related claims were excluded from the workers compensation claims data in December 1992 following the transfer of liability to the Transport Accident Commission). Further, this represents a year in which the OHS Act was embedded but where the Regulations were relatively undeveloped (i.e. prior to this point, regulations were only in place for lead, manual handling and issue resolution). This projected incidence of injuries and illnesses is shown in Chart 4.1, along with the historical incidence data used as the basis for the projection.





Source: WorkSafe data; ABS, *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015; Deloitte Access Economics base case projections for the period 2015-16 to 2026-27 (approach outlined above).

Key assumptions in adopting this approach were as follows:

- Any decreases in injuries, illnesses and fatalities resulting from the introduction of the general duties in the *Occupational Health and Safety Act 1985* would have been reflected in reductions in injuries, illnesses and fatalities over the period up until 1992-93, and that the subsequent rate of decline was primarily driven by the progressive introduction of various hazard-specific OHS regulations over the following years
- The under-developed set of regulations that existed in 1992-93 (at that point, regulations were only in place for lead, manual handling and issue resolution) is a proxy for a situation where the general OHS Act duties existed but with no regulations
- Technology did not change substantially between 1993-94 and 2014-15, and that it also won't change so substantially between 2017 and 2027 as to invalidate our approach. It is important to note here that, to the extent that technology has impacted the composition of Victoria's workforce over time, this will to some extent be captured in the adjustment for changes in industry composition
- Reputational incentives have changed little over time
- Insurance/compensation mechanisms remained fairly constant over these periods
- The severity of injury remained fairly constant over these periods.

The direct cost of injury and illness compensation claims to society of the projected increase in incidents was calculated based on the average fully developed cost of a claim.⁴¹ The indirect costs to society (including human capital and medical costs) were estimated using Safe Work Australia data on the estimated economic costs of incidents in Victoria in

⁴¹ This was based on WorkSafe data. The estimate was developed by taking the average of annual fully developed costs for each industry subdivision over the five year period 2010-11 to 2014-15 (adjusted for changes in inflation).

2012-13.⁴² This data suggests that, on average, indirect costs associated with an injury or illness claim are approximately 7.02 times the direct costs.⁴³ The total average cost per case of injury or illness was calculated by adding together the average indirect cost to the average direct cost.

By applying the estimates of total average costs to the projected increase in the number of incidents, the total increase in costs to society under the "general Act duties, no regulation" scenario was estimated. This analysis was undertaken separately for each Australian and New Zealand Standard Industrial Classification (ANZSIC) industry subdivision.

In estimating the projected costs to society from workplace fatalities under the base case, the analysis was undertaken in the same way as the projection of injuries and illnesses on the basis of historical data on the number of workplace fatalities. The only difference was that it wasn't undertaken separately on an industry-by-industry basis due to low numbers of annual fatalities in some industries. Further, the cost to society of the projected increase in fatalities was calculated based on the value of a statistical life.⁴⁴

On the basis of this analysis, the total estimated cost to society under the base case is approximately \$128 billion in net present value terms over the ten year evaluation period.⁴⁵

4.2.1.2 Costs to employers

If the OHS Regulations lapsed and were not re-made in any form, employers would no longer face any costs of complying with the OHS Regulations. However, they would still face compliance costs associated with meeting their duties under the OHS Act. Further, reputational incentives and incentives to avoid increases on workers' compensation premiums would also encourage employers to take action to prevent work-related injuries and illnesses. Hence, it was assumed that if the OHS Regulations lapsed and were not remade employers would only face savings associated with those costs that are driven purely by the OHS Regulations.

Estimates of total OHS compliance costs were gathered through the web-based survey and one-to-one interviews. In gathering these estimates, participating businesses were asked to provide an approximate figure of the costs of complying with the current regulations and the extent to which those costs would be lower in the absence of the OHS Regulations. This data was used to estimate the cost under the base case of meeting requirements under the OHS Act. On the basis of the data collected, the total estimated cost under the base case of meeting obligations under the OHS Act is approximately \$102 billion in net present value

⁴² Safe Work Australia, (2015), *The cost of work-related injury and illness for Australian employers, workers and the community: 2012-13*, Canberra

⁴³ Analysis by Safe Work Australia in 2015 (ibid.) included both the direct costs of workers' compensation payouts and the indirect costs to society associated with OHS incidents such as production disturbance costs, human capital costs and medical costs. The report found that the ratio of indirect costs to direct costs was 7.02 to 1.

⁴⁴ This was based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars (Department of Treasury and Finance, (2013), Economic Evaluation for Business Cases, Melbourne). This estimate has been inflated to 2015 dollars, \$4,264,505.

⁴⁵ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

terms,⁴⁶ noting that this is lower than the projected costs under the 'remake the OHS Regulations' scenario, which also includes the costs of complying with the OHS Regulations.

Despite the fact that businesses would face lower compliance costs if the OHS Regulations lapsed, it is probable that legal costs would increase due to employers seeking legal advice and a greater number of disputes over WorkSafe enforcement actions occurring (e.g. internal reviews, notices and prosecutions). Without specific direction such as that set out in OHS Regulations or other subordinate instruments, there would be a risk that relying only on the general duties could result in uncertainty about what constitutes compliance with the OHS Act. This uncertainty would likely result in a greater number of legal disputes between WorkSafe and employers.

Estimates of increased legal costs in the absence of the OHS Regulations were gathered through the web-based survey undertaken for this RIS. Of those surveyed, 52 per cent expressed a view on whether their legal costs might increase if the OHS Regulations lapsed, the remaining 48 per cent were unsure. Of those that offered their view, 83 per cent said that they wouldn't incur any legal costs and the remaining 17 per cent said that they would. Of those that provided cost estimates, the majority were medium (20-199 or more employees) and large (200 or more employees) businesses. When averaged across all medium and large businesses interviewed, the average annual legal cost in the absence of the OHS Regulations was \$48,118 per business.

Although some small businesses (1-19 employees) might face legal costs in the absence of the OHS Regulations, it is considered that the large majority would not. This is confirmed by the web-based survey results where only four per cent of small businesses reported a cost, versus 17 per cent of medium and large businesses. Consistent with this, the increase in legal costs under the base case was attributed only to medium and large businesses in the cost benefit analysis. On the basis of the data collected, the total estimated legal cost of disputes with WorkSafe under the base case is approximately \$4 billion in net present value terms.⁴⁷

Due to the relatively small number of businesses that indicated legal costs would be incurred, legal costs were not estimated separately by industry.

It is recognised that the approach described above may underestimate costs to business associated with uncertainty in the absence of the OHS Regulations as businesses may face other costs in addition to legal costs such as the cost of advice sought from OHS consultants. As such, this figure is regarded as a lower bound "conservative" estimate.

4.2.1.3 Costs to the Victorian Government

If the OHS Regulations lapsed and were not re-made in any form, the Victorian Government – WorkSafe in particular – would continue to face the costs of administering OHS legislation. Indeed, maintaining a similar level of workplace safety in the absence of the OHS Regulations would likely require increased activity such as inspector visits, provision of information and guidance and education programs. If the OHS Regulations lapsed it would

⁴⁶ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

⁴⁷ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

also make WorkSafe's enforcement function more difficult and costly to carry out. In the absence of the information on how to comply provided in the OHS Regulations, many attempts to penalise an employer for failing to uphold their duties under the OHS Act would be tested in the courts.

However, it is difficult to quantify the extent of such increased activity. As such, the estimated costs to the Victorian Government under the base case are conservatively assumed to be consistent with current costs.

Based on figures from WorkSafe's 2014-15 Annual Report, operating expenses associated with occupational health and safety (versus insurance and claims management and dispute resolution) represent approximately 46 per cent of WorkSafe's total operating expense, or \$124.6 million.⁴⁸ It is assumed that WorkSafe would incur this cost under the base case scenario. The total estimated cost to the Victorian Government under the base case is approximately \$1 billion in net present value terms.⁴⁹

4.2.1.4 Summary

A summary of costs under the base case is provided in Table 4.1.

Table 4.1: Estimated costs under the base case (Net Present Value)

	Cost type	NPV (\$ million)
Society	Costs of workplace illnesses and injuries	\$127,118
	Costs of workplace fatalities	\$844
Business	Costs of OHS obligations (including OHS Act)	\$102,233
	Costs of legal advice	\$4,054
Government	Cost of administering OHS legislation	\$1,010

Source: Deloitte Access Economics analysis.

Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

4.2.2 Option 1 – remake existing regulations

4.2.2.1 Costs to society

Under Option 1, the existing regulations would be re-made in their current form. This would effectively mean the continuation of the 2007 OHS Regulations for another ten years.

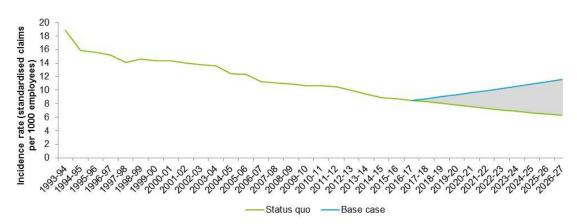
Under this scenario, the slight downward trend in workplace injuries, illnesses and fatalities over the last decade would be expected to continue into the future. In estimating the extent to which these work-related injuries, illnesses and fatalities would continue to decrease, it was assumed that the average annual rate of decline experienced from 2005-06 to 2014-15 would continue over the ten-year period of the analysis. This projected

⁴⁸ WorkSafe, (2015), 2014-15 Annual report, Melbourne

⁴⁹ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

incidence of injuries and illnesses is shown in Chart 4.2, along with the historical incidence data and a comparison with the base case projection. Note that the difference between the two lines from 2017-18 onwards represents the estimated number of avoided injuries and illnesses under Option 1 relative to the base case.

Chart 4.2: Projected incidence of workplace injuries and illnesses under Option 1, including historical incidence from 1993-94 to 2014-15 and comparison with the base case projection



Source: WorkSafe data; ABS, *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015; Deloitte Access Economics base case projections for the period 2015-16 to 2026-27 (approach outlined above).

The cost of injury and illness compensation claims to society of the projected decrease in incidents was calculated based on the average fully developed cost of a claim and associated indirect costs using an approach consistent with the base case (see Section 4.2.1.1). By applying these estimates to the projected decrease in the number of incidents, the total decrease in costs to society under Option 1 was estimated. This analysis was undertaken separately for each ANZSIC industry subdivision.

The cost of fatalities was estimated using a similar approach, except it was not undertaken on an industry-by-industry basis and fatalities were valued based on the value of a statistical life (see 4.2.1.1).

On the basis of the above analysis, the total estimated cost to society under Option 1 is approximately \$94 billion in net present value terms.⁵⁰

4.2.2.2 Costs to employers

If the OHS Regulations were re-made in their current form, employers would continue to face costs of complying with the OHS Regulations, in addition to the cost of complying with the OHS Act.

Estimates of total OHS compliance costs were gathered through the web-based survey and one-to-one interviews. As discussed in Section 4.2.1.2, in gathering these estimates, participating businesses were asked to provide an approximate figure of the costs of

⁵⁰ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

complying with the current regulations and the extent to which those costs would be lower in the absence of the OHS Regulations. This data was used to estimate the cost under Option 1 of meeting requirements under both the OHS Act and OHS Regulations. On the basis of the data collected, the total estimated cost under Option 1 of meeting obligations under the OHS Act and Regulations is approximately \$15 billion in 2017-18 and \$128 billion in net present value terms.⁵¹

A projected breakdown of OHS compliance costs in 2017-18 under Option 1, by obligation type, is provided in Table 4.2. As indicated, the majority of compliance costs stem from hazard identification and risk control measures and the provision of information, instruction and training to employees. Further, based on the results of the web-based survey, it is projected that only a small proportion of these costs (20%) are attributable to the OHS Regulations.

Table 4.2: Projected breakdown of OHS compliance costs in 2017-18 under Option 1, byobligation type

	Act (\$ millions)	Regulations (\$ millions)	Total (\$ millions)
Hazard identification and risk control measures	\$6,116	\$865	\$6,982
Provision of information, instruction and training	\$3,277	\$361	\$3,638
Atmospheric monitoring, testing and health surveillance	\$897	\$128	\$1,025
Record keeping	\$1,764	\$262	\$2,026
Notifications	\$0	\$225	\$225
Registrations	\$0	\$311	\$311
Licencing	\$0	\$890	\$890
Total	\$12,054	\$3,043	\$15,097
% Total	80%	20%	

Source: Deloitte Access Economics analysis.

Legal costs estimated under the base case are assumed not to apply under Option 1 as the remaking of the OHS Regulations would result in employers continuing to receive the certainty and direction provided by the Regulations.

4.2.2.3 Costs to the Victorian Government

If the OHS Regulations were re-made, the Victorian Government – WorkSafe in particular – would continue to face the costs of administering OHS legislation, including both the OHS Act and Regulations.

Based on figures from WorkSafe's 2014-15 Annual Report, operating expenses associated with occupational health and safety (versus insurance and claims management and dispute resolution) represent approximately 46 per cent of WorkSafe's total operating expense, or

⁵¹ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

\$124.6 million.⁵² It is assumed that WorkSafe would continue to incur this cost under Option 1 scenario. The total estimated cost to the Victorian Government under Option 1 is approximately \$1 billion in net present value terms.⁵³

4.2.2.4 Summary

A summary of costs under Option 1 is provided in Table 4.3.

Table 4.3: Estimated costs under Option 1 (Net Present Value)

	Cost type	NPV (\$ million)	Benefits compared to base case NPV (\$ million)
Society	Costs of workplace injuries and illnesses	\$94,075	\$33,043
	Costs of workplace fatalities	\$391	\$453
Business	Costs of OHS obligations (including OHS Act)	\$128,059	-\$25,826
	Costs of legal advice	\$0	\$4,054
Government	Cost of administering OHS legislation	\$1,010	\$0
	Total		\$11,724

Source: Deloitte Access Economics analysis.

Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

4.2.3 Option 2 – select improvement changes

4.2.3.1 Costs to society

Under Option 2, the existing regulations would be re-made but with amendments in select areas to improve health and safety outcomes for employees, reduce costs for businesses without reducing safety standards; align with areas of greatest risk; deliver a proportionate response and streamline and modernise the regulations. The proposed changes under this option were developed by WorkSafe and have been informed by extensive stakeholder consultation. The proposed changes are wide and varied and cut across most of the hazard areas in the OHS Regulations. They are outlined in detail in Part Two of this report under each of the hazard-specific chapters.

Although the proposed changes under Option 2 are likely to result in reduced injuries, illnesses and fatalities, it was not possible to estimate the extent of such changes with any degree of accuracy. Accordingly, the benefits of avoided injuries, illnesses and fatalities under Option 2 are assumed to be the same as Option 1 in the cost benefit analysis. However, a qualitative assessment of safety benefits under Option 2 is included in the hazard-specific chapters in Part Two of this report, where applicable.

⁵² WorkSafe, (2015), 2014-15 Annual report, Melbourne

⁵³ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

Under Option 2, the slight downward trend in workplace injuries, illnesses and fatalities experienced over the last decade would be expected to continue into the future. The total estimated cost to society under Option 2 is approximately \$94 billion in net present value terms,⁵⁴ consistent with Option 1.

4.2.3.2 Costs to employers

If the OHS Regulations were re-made with the proposed changes, employers would continue to face costs of complying with the OHS Regulations, in addition to the cost of complying with the OHS Act. However, costs for some employers would change depending on the extent to which the proposed changes under Option 2 apply to them. In some cases costs would increase and in other cases, they may decrease.

Estimates of the impact of the proposed changes on compliance costs were gathered through the one-to-one interviews. This included investigation of any initial once-off costs and/or savings associated with a proposed change and any subsequent ongoing costs and/or savings. A full discussion of the anticipated impact of each of the proposed changes and the estimated costs and cost savings is outlined in Part Two of this report under each of the hazard-specific chapters. A summary of the costs and/or cost savings under each proposed change is provided in Table 4.4.

Proposed change	Annual average cost (2015\$)	No. businesses / licences	Total cost (2015\$)
Hazardous Substances			
Allow only GHS classification and labelling of chemicals	\$977	65	\$63,373
Alignment with model WHS in relation to AgVet labelling	\$0		\$0
Reduce MSDS review requirements	-\$5,321	316	-\$1,679,587
Asbestos			
Remove asbestos register requirement if built after 2003	\$0		\$0
Allow contractors to assist in removal work	N/Q		N/Q
Remove notification requirements re medical practitioners	\$0		\$0
High risk work			
Boilers (cost to intermediate licence holders)	\$1,435	247	\$354,445
Boilers (saving to intermediate holders)	-\$60	247	-\$14,820
Boilers (renewal saving to intermediate holders)	-\$60	444	-\$26,676
Reach stackers (saving to CN licensees)	-\$3,138	533	-\$1,672,083
Reach stackers (cost to exemption holders)	\$1,450	132	\$191,400
Bridge and gantry and vehicle loading cranes	-\$323	11,060	-\$3,572,380

Table 4.4 Summary of average annual costs to employers under Option 2

⁵⁴ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

Regulatory Impact Statement for proposed Occupational Health and Safety Regulations 2017 and Equipment (Public Safety) Regulations 2017

Proposed change	Annual average cost (2015\$)	No. businesses / licences	Total cost (2015\$)
Low lift forklift trucks	\$0		\$0
Order picking forklift truck	\$0		\$0
Noise			
Written risk control plan	\$0		\$0
Trigger for an audiological exam	N/Q		N/Q
Confined spaces			
Entry permit requirements	-\$25	1,320	-\$33,000
Plant			
Tower cranes	\$0		\$0
Categories of plant design	\$0		\$0
Design of plant that is used solely in non- workplaces	\$0		\$0
Record keeping requirements	\$0		\$0
Mines			
Factors to be considered when identifying a mining hazard	N/Q		N/Q
Permit employment of 16-18 year olds	\$0	0	\$0
Simplified mine communication requirements	-\$57,099	50	-\$2,854,940
Simplified requirements regarding safe air levels	\$0	0	\$0
Major hazard facilities			
Change SMS requirements	-\$2,357	13	-\$29,854
Updating safety cases	-\$3,752	6	-\$23,761
Demographic requirements for safety cases	-\$28	38	-\$1,064
Provide emergency plans to municipal councils	\$1,708	25	\$43,262
Inclusion of seismic data in safety cases	\$2,385	13	\$30,207
Protection of emergency services personnel	\$ 8,189	29	\$233,378
Total			-\$8,992,099

Source: Deloitte Access Economics analysis.

Notes: Savings are represented as negative costs. N/Q = Not quantified due to a lack of responses. Totals do not sum due to rounding; as presentation of figures are in whole numbers but calculations were done to several significant figures.

On the basis of the above estimates, the total estimated cost under Option 2 of meeting obligations under the OHS Act and Regulations is approximately \$128 billion in net present value terms.⁵⁵ Note that this is almost identical to the estimated cost under Option 1 as the estimated costs of the proposed changes are similar to the estimated savings, with the net result being approximately \$84 million less in net present value terms.⁵⁶

⁵⁵ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

⁵⁶ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

4.2.3.3 Costs to the Victorian Government

The proposed changes under Option 2 are not anticipated to result in any substantive changes in the costs to WorkSafe of administering the OHS Regulations. As such, costs to the Victorian Government under Option 2 are assumed to be the same as under Option 1.

4.2.3.4 Summary

A summary of costs under Option 2 is provided in Table 4.5.

	Cost type	NPV (\$ million)	Benefits compared to base case NPV (\$ million)
Society	Costs of workplace injuries and illnesses	\$94,075	\$33,043
	Costs of workplace fatalities	\$391	\$453
Business	Costs of OHS obligations (including OHS Act)	\$127,975	-\$25,742
	Costs of legal advice	\$0	\$4,054
Government	Cost of administering OHS legislation	\$1,010	\$0
	Total		\$11,808

Table 4.5: Estimated costs under Option 2 (Net Present Value)

Source: Deloitte Access Economics analysis of one-to-one interview and ABS data (see Part Two of this report for details.

Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

4.2.4 Option 3 – increased national consistency

4.2.4.1 Costs to society

Under Option 3, the existing regulations would be re-made but with amendments in select some areas to increase consistency with the model WHS Regulations. The proposed changes under this option were selected by WorkSafe and have also been informed by stakeholder consultation. The proposals include a number of changes proposed under Option 2 to align with the model WHS Regulations in select areas and a number of other changes that would result in the scope of the OHS Regulations being extended to cover new areas such as falls under two metres, falling objects or communication with remote or isolated workers.

Although the proposed changes under Option 3 may result in reduced injuries, illnesses and fatalities, it was not possible to estimate the extent of such changes with any degree of accuracy. Accordingly, the benefits of avoided injuries, illnesses and fatalities under Option 3 are assumed to be the same as Option 1 in the cost benefit analysis. However, a qualitative assessment of safety benefits under Option 3 is included in Chapter 19.

Under Option 3, the slight downward trend in workplace injuries, illnesses and fatalities experienced over the last decade would be expected to continue into the future. The total

estimated cost to society under Option 3 is approximately \$94 billion in net present value terms,⁵⁷ consistent with Option 1.

4.2.4.2 Costs to employers

If the OHS Regulations were re-made, employers would continue to face costs of complying with the OHS Regulations, in addition to the cost of complying with the OHS Act. However, costs for some employers would change depending on the extent to which the proposed changes under Option 3 apply to them. In some cases costs would increase and in others they would decrease, particularly to those working across different states and territories.

Estimates of the impact of the proposed changes to increase national consistency on compliance costs were gathered through the one-to-one interviews. This included investigating any initial once-off costs and/or savings associated with a proposed change and any subsequent ongoing costs and/or savings. A full discussion of the anticipated impact of each of the proposed changes and the estimated costs and cost savings is outlined in Chapter 19. A summary of the costs and/or cost savings under each proposed change is provided in Table 4.6. As indicated, in Table 4.6 the majority of the costs are driven by four proposals.

Proposed change	Annual average cost (2015\$)	No. business/ licences	Total cost (2015\$)
Changes under Option 3 only			
Adopt model WHS definition of a fall (incl. below two metres)	\$10,512	31,306	\$329,091,355
Communication for isolated or remote employees (cost)	\$7,461	29,242	\$218,161,964
Communication for isolated or remote employees (saving)	-\$96	1,625	-\$156,090
Duty to have and test emergency plans (cost)	\$2,373	85,506	\$202,948,634
Duty to have and test emergency plans (saving)	-\$218	5,351	-\$1,166,289
Control the risk of falling objects (cost)	\$2,596	68,217	\$177,104,299
Control the risk of falling objects (saving)	-\$138	2,436	-\$337,093
Provide adequate level of first aid (cost)	\$589	90,973	\$53,604,506
Provide adequate level of first aid (saving)	-\$121	5,351	-\$648,181
Electrical safety (RCDs) (cost)	\$631	59,319	\$37,449,776
Electrical safety (RCDs) (saving)	-\$119	1,854	-\$221,298
Asbestos management plan	\$59	123,160	\$7,266,459
Independent assessors	\$15,000	22	\$330,000
Licencing scheme for cyclophosphamide	\$303	253	\$76,598

Table 4.6 Summary of average annual costs to employers under Option 3

⁵⁷ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

Regulatory Impact Statement for proposed Occupational Health and Safety Regulations 2017 and Equipment (Public Safety) Regulations 2017

Proposed change	Annual average cost (2015\$)	No. business/ licences	Total cost (2015\$)
Changes under both Option 2 and Option 3			
Boilers (cost to intermediate holders)	\$1,435	247	\$354,445
Boilers (saving to intermediate holders)	-\$60	247	-\$14,820
Boilers (renewal saving to intermediate holders)	-\$60	444	-\$26,676
Allow only GHS classification and labelling of chemicals	\$977	65	\$63,373
Alignment with model WHS in relation to AgVet labelling	\$0		\$0
Remove asbestos register requirements for buildings constructed after 2003	\$0		\$0
Low lift forklift trucks	\$0		\$C
Order picking forklift trucks	\$0		\$0
Written risk control plan (noise)	\$0		\$0
Permit employment of 16-18 year olds	\$0		\$0
Simplified requirements regarding safe air levels	\$0		\$0
Entry permit requirements for confined spaces	-\$25	1,320	-\$33,000
Reduce MSDS review requirements	-\$5,321	316	-\$1,679,587
Simplified mine communication requirements	-\$57,099	50	-\$2,854,940
Bridge and gantry crane and vehicle loading crane	-\$323	11,060	-\$3,572,380
Allow contractors to assist in asbestos removal work	N/Q		N/C
Factors to be considered when identifying a mining hazard	N/Q		N/C
Total			\$1,015,741,057

Source: Deloitte Access Economics analysis of one-to-one interview and ABS data (see Part Two of this report for details).

Notes: Savings are represented as negative costs. N/Q = Not quantified due to a lack of responses. Totals do not sum due to rounding; as presentation of figures are in whole numbers but calculations were done to several significant figures.

On the basis of the above estimates, the total estimated cost under Option 3 of meeting obligations under the OHS Act and Regulations is approximately \$138 billion in net present value terms.⁵⁸ This is approximately \$10 billion higher than estimated costs under Options 1 and 2 in net present value terms.⁵⁹

The above estimates were calculated based on stakeholder feedback gathered through the one-to-one interviews with Victorian businesses conducted for this RIS. In total, 65 businesses were interviewed in relation to the proposed changes under Option 3. The results are outlined in Chapter 19 separately for each change.

⁵⁸ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

⁵⁹ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

4.2.4.3 Costs to the Victorian Government

The proposed changes under Option 3 are not anticipated to result in any substantive changes in the costs to WorkSafe of administering the OHS Regulations. As such, costs to the Victorian Government under Option 3 are assumed to be the same as under Option 1.

4.2.4.4 Summary

A summary of costs under Option 3 is provided in Table 4.7.

	Cost type	NPV (\$ million)	Benefits compared to base case NPV (\$ million)
Society	Costs of workplace injuries and illnesses	\$94,075	\$33,043
	Costs of workplace fatalities	\$391	\$453
Business	Costs of OHS obligations (including OHS Act)	\$137,624	-\$35,391
	Costs of legal advice	\$0	\$4,054
Government	Cost of administering OHS legislation	\$1,010	\$0
	Total		\$2,159

Table 4.7: Estimated costs under Option 3 (Net Present Value)

Source: Deloitte Access Economics analysis.

Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

4.2.5 Determining the preferred option

The preferred option is selected as the option which has the highest net benefits to society as a whole. The estimated net benefits of each option relative to the base case are provided in Table 4.8.

All options have positive net benefits when compared with the base case. However, net benefits under Option 2 are the highest at \$11.81 billion compared with \$11.72 billion for Option 1 and \$2.16 billion for Option 3. On the basis of these results, Option 2 is preferred by a slight margin.

	Cost type	Option 1 (\$ billions)	Option 2 (\$ billions)	Option 3 (\$ billions)
Society	Benefit of reduced workplace injuries and illnesses	\$33.04	\$33.04	\$33.04
	Benefit of reduced workplace fatalities	\$0.45	\$0.45	\$0.45
Business	Costs of OHS obligations (including OHS Act)	-\$25.83	-\$25.74	-\$35.39
	Benefit of reduced legal advice costs	\$4.05	\$4.05	\$4.05
Government	Cost of administering OHS legislation	\$0.00	\$0.00	\$0.00
	Net benefit	\$11.72	\$11.81	\$2.16

Table 4.8: Estimated net benefits relative to the base case (Net Present Value)

Source: Deloitte Access Economics analysis.

Notes: Net Present Values are calculated over a ten year period using a real discount rate of 4% with 2015 prices.

Although the results of the cost benefit analysis suggest that Option 2 is only marginally more beneficial than Option 1 - with the difference being approximately \$84 million in favour of Option 2 - it is important to reiterate that this analysis does not take account a number of other benefits associated with the proposed changes under Option 2. These include improvements in consistency, predictability, flexibility and enforceability, the removal of duplication, and the provision of further guidance. These benefits are outlined in detail in Part Two of this report under each of the hazard-specific chapters.

4.2.6 Transition costs

Under Option 2 and Option 3 there will be transitional costs for businesses in familiarising themselves with the new and amended Regulations. These costs are in addition to the once off and ongoing costs of actually complying with the regulations.

The cost estimates set out in this Chapter do not include a specific figure for these transition costs. In part this is because in responding to questions about the cost of complying with the new and amended regulations some businesses will have already included these transition costs in their overall estimates. For example, businesses in the construction industry were asked to estimate the once-off and ongoing costs they would incur should the OHS Regulations require them to work through a hierarchy of control for any fall, and not just those over two metres. Thus, by adding an estimate of transition costs into our calculations we would be double counting these costs.

However, it is true that even if businesses are not required to implement any changes, they may need to review the changes to the Regulations in order to satisfy themselves that this is indeed the case. This will impose a cost.

The estimate of these transition costs is \$18 million for Option 2 and \$44 million for Option 3. This assumes all businesses take 30 minutes to review the changes to the Regulations, and for those businesses impacted by changes, the transition costs are 30 minutes per

change. Even including these transition costs, Option 2 remains the preferred option on a net benefit basis.

4.2.7 Key assumptions

Key assumptions reflected in the analysis of the base case and options 1, 2 and 3 are outlined as follows:

- **Discount rate** Four per cent, real
- Injuries, illnesses and fatalities in the absence of the OHS Regulations The average annual rate of decline in work-related injuries, illnesses and fatalities experienced over the period from 1993-94 to 2014-15 would be reversed if the OHS Regulations lapsed and injuries, illnesses and fatalities would subsequently increase at the same average annual rate over the ten-year period of the analysis (see 4.2.1.1 for more detail)
- Direct costs of injuries and illnesses Equivalent to the inflation adjusted average fully developed cost of workers' compensation claims for each industry, based on WorkSafe data
- Indirect social costs of injuries and illnesses 7.02 times the direct cost of workers' compensation claims based on research by Safe Work Australia which suggests that the ratio of total indirect costs to total direct costs is 7.02 to 1⁶⁰
- Social costs of a workplace fatality \$4,264,505 per fatality based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars.⁶¹ This estimate was inflated to 2015 dollars
- Proportion of businesses that are aware of their OHS obligations and therefore face a cost It was necessary to recognise the reality that not all businesses are aware of and/or comply with their OHS obligations and hence not all businesses will incur OHS-related costs. WorkSafe does not have any reliable data on compliance rates on which to base estimates of the benefits and costs of compliance with the OHS and EPS Regulations. Therefore, the results of a Productivity Commission survey which set out the extent to which businesses were aware of their OHS requirements was used as a proxy.⁶² This study estimated that the percentage of businesses that were aware of their OHS requirement was as follows:
 - 100 per cent for large employers (200 or more employees)
 - 77 per cent for medium-sized employers (20-199 or more employees)
 - 69 per cent for small employers (1-19 employees)
 - 61 per cent for non-employing businesses.

These assumptions were applied uniformly across all industries and hazard areas, noting that in reality compliance rates will vary.

⁶⁰ Safe Work Australia, (2015), *The cost of work-related injury and illness for Australian employers, workers and the community: 2012-13*, Canberra

⁶¹ Department of Treasury and Finance, (2013), *Economic Evaluation for Business Cases*, Melbourne

⁶² Productivity Commission, (2010), *Performance Benchmarking of Australian Business Regulation: Occupational Health & Safety*, Canberra, p.161

In calculating these figures, businesses that reported that they were 'not aware' are assumed to not comply with OHS Regulations at all and 50 per cent of businesses that reported they were 'somewhat aware' are assumed not to comply with the OHS Regulations at all. The reasonableness of these proportions was tested in the focus groups and feedback received was that, in the absence of any other information, these estimates are reasonable.

- Costs faced by non-employing businesses on average, 40 per cent of the costs faced by small employers. An initial estimate of 50 per cent was tested with employer and employee representative bodies, and some regionally-based businesses, as part of the focus groups conducted for this RIS. Feedback received was that 50 per cent was too high and that non-employing businesses would face lower costs than this. Based on this feedback, the initial estimate of 50 per cent was revised down to 40 per cent. This average was used across all industries, although the actual figure is likely to differ across industries. For example, in the construction industry some non-employing businesses will engage sub-contractors and hence will incur costs in meeting OHS obligations. In contrast, the finance industry is likely to include many individuals who have an ABN for doing contract work carried out for other businesses, and will have few OHS costs. However no data was available to enable industry-specific estimates to be made.
- Removal of outliers Observations from the web-based survey and one-to-one interviews were excluded in cases where the reported compliance cost was more than 2.5 standard deviations away from the average cost across all responses (controlling for differences in both industry and size). This resulted in the exclusion of 16 observations out of a total of 315. In addition to this, nine observations were excluded as they were considered not to be representative and seven because the responses were incomplete
- Scaling up estimates of average compliance costs When scaling the results of the web-based survey and one-to-one interviews it was necessary to do so separately for each industry and each business size within each industry. This was to account for the fact that the overall pool of respondents was not representative of the general make-up of the Victorian economy by industry and size. In undertaking this analysis, historical estimates of the number of businesses by industry and size were taken from ABS business count data.⁶³ Projections for the ten year period of the analysis were based on internal Deloitte Access Economics business count forecasts.
- Dealing with gaps in compliance cost data for certain sizes of businesses in some industries When scaling the results of the web-based survey and one-to-one interviews, estimates of average costs were not available in some cases at the specific industry level for small, medium or large businesses. To address this, the average compliance cost results that were available for certain sizes were scaled up or down according to the average ratios of costs for small businesses to medium businesses, small businesses to large businesses and medium businesses to large businesses. This assumes that the proportionality of costs between different sized businesses remains approximately constant across comparable industries
- Use of web-based survey and one-to-one interview compliance cost data Questions relating to the cost of complying with the current OHS Regulations were asked in both

⁶³ ABS, (2015), *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014* (ABS release no: 8165.0), February 2015 (and earlier editions).

the web-based survey and one-to-one interviews. However, different approaches were used. In the in the one-to-one interviews, businesses were asked to estimate the cost of complying with the main obligations within each hazard area that applied to their business. In the web-based survey, businesses were asked to provide an approximate estimate of the total cost of meeting different types of OHS obligations such as hazard identification and risk control or record keeping. The data from the survey and interviews was pooled together for the purposes of estimating the aggregate costs of complying with the OHS Act and Regulations. This was necessary to reduce data gaps for certain industries and sizes of businesses within them. Analysis of the two sets of survey results suggests that this approach is valid as estimates of average costs per business are not too dissimilar between them.

Costs of the OHS Act versus the OHS Regulations – In the web-based survey, businesses were asked to provide an approximate figure of the costs of complying with OHS requirements (including as they relate to the OHS Act and Regulations) and the extent to which those costs would be lower in the absence of the OHS Regulations. This data was used to estimate the cost under the base case of meeting requirements that are specific to the OHS Act only. When pooling the data from the web-based survey and one-to-one interviews, the average split of compliance costs between the OHS Act and Regulations calculated from the web-based survey results was applied to the results for the one-to-one interviews, as businesses participating in the one-to-one interviews were not asked to split costs in this way. This was achieved by taking the average percentage split in compliance costs between the OHS Act and OHS Regulations calculated from the web-based survey results and applying this to the results for the one-to-one interviews – separately by industry. Specifically, these percentage estimates were applied to the total cost figure from each one-to-one interview response prior to taking averages and scaling up the results

Further assumptions adopted when estimating the costs of proposed changes under Options 2 and 3 are outlined in Part Two of this report. Further detail is also provided in the separate Technical Appendix document.

4.3 Preferred option (Option 2)

Under Option 2, the existing regulations would be re-made but with amendments in select areas to improve health and safety outcomes for employees, reduce costs for businesses without reducing safety standards; align with areas of greatest risk; deliver a proportionate response and streamline and modernise the regulations. These changes are outlined in detail in Part Two of this report.

When considering the impacts of the preferred option relative to the base case of general OHS Act duties and no regulation, costs to employers would be higher by an average of 3.2 billion per year and costs to society from work-related injuries, illness and fatalities would be lower by an average of 4.9 billion per year. It is important to note however, that the benefits of the avoided costs to society would take a number of years to materialise in a significant way. This is because employers have already made significant investments in occupational health and safety – as encouraged by the existing OHS Regulations – and such investments would continue to have an effect over time, but that effect would diminish as capital investments and safe work practices deteriorate. This relationship between costs and benefits is depicted in Chart 4.3.

Regulatory Impact Statement for proposed Occupational Health and Safety Regulations 2017 and Equipment (Public Safety) Regulations 2017

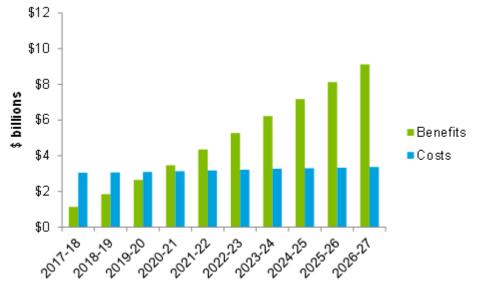


Chart 4.3: Costs and benefits to society under the preferred option (2015 prices, real)

Source: Deloitte Access Economics analysis.

Relative to the current experience of the large majority of employees and employers, the preferred option will not result in significant changes. However, some businesses will have to adjust to altered requirements in some areas and this will result in costs to some and savings to others. The effect of the proposed changes under the preferred option is outlined in more detail in the hazard-specific chapter in Part Two of this report.

4.3.2 Implementation considerations

WorkSafe will communicate information about the new regulations to a broad range of stakeholders. This ranges from stakeholders who have been engaged throughout the review process to all Victorian workplaces that are subject to the regulations. The key stakeholders to be considered are employer and employee associations, individual employers and members of the community. As the preferred option remakes the existing OHS Regulations with only a small number of changes implementation is expected to be straight forward.

4.3.3 Impact on small business and competition assessment

Relative to a base case of general OHS Act duties and no regulation, additional costs to employers are estimated at \$3.04 billion in 2017-18. Of these costs, 72.1 per cent are incurred by small businesses, 11.8 per cent by medium businesses and 16.1 per cent by large businesses. That the majority of these costs are born by small businesses is explained by the fact that the majority of businesses in Victoria (approximately 97 per cent) are small.

From an average cost perspective, additional costs to employers in 2017-18 are estimated at approximately \$3,795 for non-employing small businesses, \$9,884 for employing small businesses, \$28,912 for medium businesses and \$280,955 for large businesses. This suggests that small businesses will not be disproportionately impacted under the preferred option.

The impact on small business and competition of the proposed changes under the preferred option is outlined in more detail in the hazard-specific chapter in Part Two of this report.

4.4 Sensitivity analysis

The results of the sensitivity analysis are provided in Table 1.1 for key assumptions adopted in the analysis. The analysis involved varying these key assumptions to determine the impact on the estimated net benefit of the preferred option which, under the core assumptions adopted for this RIS, is \$11.8 billion in net present value terms over ten years.⁶⁴

The results of the sensitivity analysis suggest that the overall finding of positive net benefits under the preferred option is robust to changes in all key assumptions apart from the cost of the OHS Regulations as a proportion of total compliance costs from both the OHS Act and Regulations. Under the assumption that the OHS Regulations represent 25 per cent of total OHS compliance costs, net benefits under the preferred option become \$5.2 billion in net present value terms over ten years.⁶⁵

It is important to note that the assumption adopted in the core analysis that the OHS Regulations represent 20 per cent of total OHS compliance costs – on average across all industries – was based on the results of the web-based survey. Specifically, respondents were asked to estimate the extent to which total OHS compliance costs would be lower in the absence of the OHS Regulations.

⁶⁴ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

⁶⁵ Calculated over a ten year period using a real discount rate of 4% with 2015 prices

Item	Core assumption	Lower bound sensitivity	Upper bound sensitivity	Lower bound result (\$ billion NPV)	Upper bound result (\$ billion NPV)
Discount rate	4%	3%	5%	\$13.0	\$10.7
Costs faced by non-employing businesses	40%	25%	55%	\$14.4	\$9.3
Indirect social cost of illnesses and injuries	7.02	5.5	8.5	\$5.5	\$17.9
Cost of Regulations as % of total cost	20%	15%	25%	\$18.2	\$5.2
Base case incidence of injuries and illnesses	Increase at same rate as current decrease	Increase at 50% of current decrease	Increase at 150% of current decrease	\$1.9	\$22.8
Compliance rate	61% (non-employing) 69% (small) 77% (medium) 100% (large)	50% (non-employing) 60% (small) 70% (medium) 90% (large)	70% (non-employing) 80% (small) 90% (medium) 100% (large)	\$16.6	\$11.1
Value of a Statistical Life	\$4.264m	\$3.0m	\$5.5m	\$11.7	\$11.9

Table 4.9: Sensitivity analysis of net benefits under the preferred option

Source: Deloitte Access Economics analysis.

Notes: Under the assumptions of the core analysis outlined in this RIS, the net benefits under the preferred option are estimated at \$11.8 billion in net present value terms over ten years.

Part Two – Analysis by hazard area

5 Introduction to hazard areas

This chapter provides a brief introduction to the hazard areas assessed in detail in Part Two of this report.

Key points:

The current OHS Regulations focus on a number of sectors and workplace activities that are inherently risky. These are defined in the OHS Regulations as 'hazard areas'.

The hazard areas targeted are mines, major hazard facilities, hazardous substances, scheduled carcinogenic substances, lead, plant, high risk work, hazardous manual handling, asbestos, noise, confined spaces, construction and falls.

The hazard area targeted through the EPS Regulations is prescribed equipment, which relates to certain equipment used in non-workplace environments that poses a risk to the general public. Examples include tractors used in hobby farms, scaffolding utilised on residential premises and vehicle hoists in home garages.

Each of these hazard areas covers a set of risks to employees and the general public and a specific regulatory approach has been taken.

Consistent with the structure of the OHS Regulations, hazards can be classified into three key areas under which there exist a number of hazards specifically targeted through the OHS Regulations, as follows:

- Physical hazards manual handling, noise, falls, confined spaces, plant and licenced high risk work
- Hazardous substances and materials hazardous substances, scheduled carcinogens, asbestos and lead
- Hazards associated with work undertaken in hazardous industries construction, major hazard facilities and mines.

In addition, 'prescribed equipment' regulated under the EPS Regulations is also considered to be a hazard area for the purposes of this RIS.

An analysis of the regulatory impacts associated with each of these hazard areas is included in the following chapters. This includes an outline of the key characteristics in each of these areas, the nature and extent of the problem, the objectives of regulation, the identification of feasible options, the assessment of those options and the impacts on small business and competition.

In light of the similarities between hazardous substances, scheduled carcinogens and lead, these hazard areas captured in a single chapter. Similarly, plant and prescribed equipment are also captured in a single chapter.

6 Manual handling

6.1 Background

The OHS Regulations define 'manual handling' to include any activity requiring the use of force exerted by a person to lift, lower, push, pull, carry or otherwise move or restrain any object.

Part 3.1 of the OHS Regulations is restricted to the occurrence of 'hazardous manual handling', which means manual handling activities that also involve:

- Repetitive or sustained application of force, awkward posture or movement; or
- Application of any high force that would be reasonably considered to be difficult to undertake; or
- Exposure to sustained vibration.

Manual handling is also considered "hazardous manual handling" where it involves handling of live persons or animals or handling loads that are unstable, unbalanced or difficult to grasp or hold.

Injuries associated with hazardous manual handling include abdominal hernia, injury to joints and in various body parts such as the back, wrists, arms, shoulders and legs. These injuries can occur as a result of repetitive tasks leading to deterioration of tissues, e.g. in the hands and wrists. High force tasks performed infrequently can also result in injuries, such as rupture of an intervertebral disc and strain of ligaments and tendons. Injuries associated with hazardous manual handling are generally referred to as MSD.

Under the OHS Regulations, an employer must identify any task involving 'hazardous manual handling', and control any risk of MSD associated with the task. If there is an associated risk of MSD, a hierarchy of control must be applied to eliminate or reduce it so far as reasonably practicable. The hierarchy of control (r. 3.1.2)⁶⁶ builds on the general duties under the OHS Act by prescribing risk control measures specific to controlling MSD risk. Sub-regulation 3.1.2(4) specifies risk factors that must be addressed when selecting appropriate controls.

6.2 Nature and extent of the problem

6.2.1 Description of problem

Manual handling is a major issue in Victorian workplaces. While the number of manual handling MSD claims has decreased in recent years, hazardous manual handling remains the single biggest source of worker compensation claims in Victoria.

⁶⁶ r. is an abbreviation of the word 'Regulation', e.g. r. 3.1.2 of the existing OHS Regulations.

Manual handling covers a wide range of activities including lifting, pushing, pulling, holding, throwing and carrying. It includes repetitive tasks such as packing, typing, assembling, cleaning and sorting, using hand-tools, and operating machinery and equipment. Most jobs involve some form of manual handling and therefore most workers are at risk of manual handling injury. Injuries are most likely to arise from hazardous manual handling which is manual handling activities that also involve:

- Repetitive or sustained application of force, awkward posture or movement; or
- Application of any high force that would be reasonably considered to be difficult to undertake; or
- Exposure to sustained vibration; or
- Handling of live persons or animals; or
- Handling loads that are unstable, unbalanced or difficult to grasp or hold.

Cases of MSD can occur when the physical impact of a manual handling task is underestimated by employers and appropriate risk control measures are not put in place. Injuries are more likely to occur when the manual handling task has the characteristics of hazardous manual handling as described above.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of manual handling tasks.

Behavioural factors are a significant driver of injuries from manual handling. Employers and employees face challenges in identifying hazardous manual handling in work design. Employers and employees also face challenges in accurately assessing the risk of an injury occurring. Finally employers do not face the full cost of MSDs. The cost of preventing such injuries e.g. job redesign or plant purchase can be overestimated when compared to the cost and likelihood of an injury. The regulations provide a process to assist employers identify the risk and implement a risk control measure.

The Manual Handling Regulations supplement the general duties under the OHS Act by:

• **Prescribing mandatory processes to be followed** – The Regulations prescribe a specific hierarchy of risk control measures that must be applied to eliminate or reduce any risk of MSD associated with hazardous manual handling in the workplace (r. 3.1.2), so far as reasonably practicable.

Prescribing this process in the OHS Regulations assists employers to select the most effective risk control measures, thereby meeting their obligations under the OHS Act and protecting employees from the risk of MSD. The Regulations (r. 3.1.3) also specify a requirement to review and, if necessary, revise risk control measures in response to: changes in how the work is done; new information; the occurrence of an MSD; or a request from an HSR. The review requirement is a way of ensuring that risk control measures stay up to date.

The regulations reduce the likelihood of an employer underestimating the risks of manual handling tasks and failing to put in place appropriate risk control measures by prescribing a process to be followed when hazardous manual risks are present in the workplace.

6.2.2 Incidence and trends

Between 1 July 2007 and 30 June 2015 there were 94,423 compensation claims attributed to MSDs arising from hazardous manual handling (approximately 41 per cent of all standardised claims over this period).⁶⁷ Chart 6.1 shows the number and incidence of standardised claims attributed to MSDs arising from hazardous manual handling on an annual basis, displaying a downward trend over time.

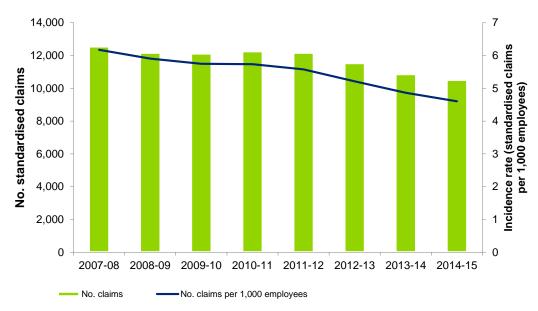


Chart 6.1: Manual handling standard claims, 2007-08 to 2014-15

As noted, the number of manual handling claims has decreased over recent years. While the operation of the OHS Regulations has coincided with a reduction in manual handling claims, it is difficult to identify with any certainty the extent to which the decrease can be attributed to the existing OHS Regulations. Other factors which could at least partly explain the reduction include reduction of employment in manufacturing⁶⁸ (a high claim sector), the impact of other non-regulatory elements of WorkSafe's hazardous manual handling strategy (e.g. guidance material and information campaigns), or increasing mechanisation of industries that formerly relied on manual handling. Despite this decrease, manual handling claims are almost half of all standard compensation claims.

Based on an analysis of industry subdivisions possibly affected by manual handling hazards, there were approximately 2,284,414 people employed in these industries in Victoria in

Source: WorkSafe data.

⁶⁷ WorkSafe data.

⁶⁸ Although the could arguably be offset by the increase in employment in health care and social assistance also a high claim sector

2014-15.⁶⁹ This is an increase from 2007-08 when there were approximately 2,032,752 people employed in these industries in Victoria. The industry subdivisions fell within all industry divisions except for financial and insurance services. It is recognised that manual handling risks would be present in the financial and insurance services industry in some cases. However, on balance, most employees in this industry would not face these risks.

6.3 Objectives of regulation

The primary purpose of the proposed Manual Handling Regulations is to prevent MSD arising from hazardous manual handling in the workplace. The OHS Regulations supplement the general duties under the OHS Act by prescribing a process where employers must identify hazardous manual handling, control any risk of MSD in accordance with a specific hierarchy and review and revise risk control measures in response to certain triggers. It is considered that employers would be unlikely to arrive at appropriate risk control measures without following the prescribed process.

6.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for manual handling are discussed in this section. These options were tested by WorkSafe and the Manual Handling SRG and assessed against the aims of the review process outlined in Section 1.3. The Manual Handling SRG consisted of employee and employer representatives with expertise in this topic area.

6.4.1 Policy proposals under Option 2- select improvement changes

The review of Part 3.1- Manual Handling concluded with minor changes proposed to the OHS regulations. These changes will improve the readability and usability of the regulations. The following changes are included in the proposed regulations:

6.4.1.1 Streamlining definition of 'hazardous manual handling'

It is proposed to redraft the definition of 'hazardous manual handling' to streamline it and improve readability. The key change is to remove the need for separate definitions of 'manual handling' and 'object' by rolling these two separate definitions into the definition of 'hazardous manual handling'.

⁶⁹ ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015

6.4.1.2 Removing references to 'task' (r. 3.1.1(1))

It is proposed to remove references to 'task' to reduce confusion around what this term means and the risk of employers adopting a narrow definition and failing to identify hazardous manual handling with a risk of MSD. Instead, employers would be required to identify any hazardous manual handling undertaken, or to be undertaken, by an employee. The aim of this drafting amendment is to improve the usability of the regulations and reduce confusion.

6.4.1.3 Removing sub-provision specifying that hazardous manual handling can be identified in a 'class of tasks' (r. 3.1.1(2))

It is proposed to remove this sub-provision that specifies that an employer can identify tasks in a class, where the tasks are similar, and this does not result in any greater, additional or different risk to health and safety than if the identification were carried out for each individual task. It was determined that this information is more appropriate to include in the Compliance Code.

6.4.2 Other changes considered

6.4.2.1 Re-introducing a mandatory risk assessment requirement

During the review it was suggested that the removal of the mandatory risk assessment requirement from the Manual Handling Regulations in 2007 has made the part confusing. Specifically, while employers are still required to identify hazardous manual handling and control risk of MSD, there is now no clear link between the two.

Consideration was given to re-introducing a risk assessment requirement, including by introducing something similar to r. 3.2.7, which requires an employer to conduct a 'determination of exposure to noise' where there is uncertainty as to whether the noise exposure standard may be exceeded.

However, it was not considered appropriate to re-instate a mandatory risk assessment requirement for manual handling because:

- There is no specific, measurable and enforceable 'exposure standard' that determines when hazardous manual handling will have a risk of MSD. While there is 'general guidance' in the Compliance Code, employers need to exercise a degree of judgement in determining what activities will have risk – e.g. whether 'high force' is required to complete a job
- The focus of the proposed Regulations is appropriately on the control of risk employers should be encouraged to focus on risk control measures rather than the need to assess each employees' work against what would be an inexact 'exposure standard' for MSD
- Re-instating a risk assessment requirement would not align with the principles adopted for the review of the OHS regulations or the *Victorian Guide to Regulation* e.g. avoiding unnecessary red tape increases, providing duty holders with appropriate flexibility as to how they comply with their duties, and ensuring consistent and predictable regulation.

Despite the absence of mandatory risk assessment in the Manual Handling Regulations, once an employer identifies 'hazardous manual handling', they have a duty to consider whether there is an associated risk that needs to be controlled. In many cases a risk assessment may help to identify whether there is a risk of MSD, and how best to control it. This position will be explained clearly in guidance material accompanying the revised Regulations.

6.4.2.2 Introducing specific regulation for designers, manufacturers and suppliers of products for use in workplaces

Including a specific duty on designers, manufacturers and suppliers in the Manual Handling Regulations was considered on the basis that reducing risk of MSD at the design phase is most effective. However, this is not proposed as it was determined that this is already sufficiently covered by existing OHS Act and Regulation duties that apply to designers, manufacturers and suppliers.

6.4.2.3 Proposal to remove requirement to consider specified risk factors at r. 3.1.2(4)

This was proposed on the basis that the factors listed were better considered when assessing risk, and included in the Compliance Code. However, upon further consideration, it was considered that there is a safety benefit in maintaining the sub-provision as these factors also need to be considered at the time an employer selects risk control measures.

6.4.2.4 Proposal to remove r. 3.1.2(3) (control of risk using information, instruction and training)

This was proposed on the basis this sub-provision duplicated 21(2)(e) of the OHS Act. However after further review it was determined that the requirement at r. 3.1.2(3) has an important role as a 'last resort' control option and can be differentiated from the general OHS Act duty to provide information, instruction, training or supervision.

6.5 Assessment of options

6.5.1 Option 1 – remake existing regulations

Under Option 1, the existing 'Part 3.1 - Manual Handling' would be re-made in its current form. This would effectively mean the continuation of the existing requirements for another ten years. Under this scenario, and in the absence of changes to industry structure – for example a manufacturing resurgence – the downward trend in manual handling injuries experienced over the last decade would be expected to continue into the future.

6.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with manual handling-related obligations in the OHS Act and Regulations is projected to be \$4.8 billion per year in 2017. Of this total cost, approximately \$940 million is attributable to the OHS Regulations, representing 30.9 per cent of the total costs of the OHS Regulations. Based on the results of the interviews and survey, the majority of these

costs accrue to the retail trade (31%); information, media and telecommunications (17%); and rental, hiring and real estate services (11%) sectors.⁷⁰

Of those that reported OHS Act and Regulation compliance costs associated with manual handling, the average cost was \$402,709 per business per year with estimates ranging between \$25 and \$10.3 million.⁷¹ The drivers of this cost are risk control (84%), reviewing risk control measures (15%) and other requirements (1%). When broken down by business size, the average reported cost was \$21,477 for small businesses (between \$25 and \$326,324), \$76,851 for medium businesses (between \$64 and \$455,585) and \$1.4 million for large businesses (between \$7,400 and \$10.3 million).

6.5.1.2 Benefits

The primary benefit associated with the Manual Handling Regulations is the reduction in work-related cases of MSD and associated costs. Based on the total cost to society associated with manual handling compensation claims, it is possible to estimate the number of cases that would need to be prevented in order for the total quantified benefits of prevention to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that 1,792 cases of work-related MSD would need to be prevented per year in order for the benefits of the Manual Handling Regulations to equal the compliance costs to Victorian businesses, as shown in Table 6.1. This represents 17 per cent of the total number of manual handling claims in 2014-15. Put another way it would require the prevention of eight MSD claims for every 10,000 employees at risk of an MSD.

WorkSafe considers it feasible and reasonable that the regulations would prevent the number of claims required for the benefits to be greater than the compliance costs. The regulations contribute to the prevention of hazardous manual handling injuries by prescribing a process to be followed when hazardous manual handling risks are present in the workplace.

⁷⁰ Given the small sample size relative to the overall number of businesses across the Victorian economy, these estimates of the split in total costs by industry are illustrative only.

⁷¹ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all. Further, this estimate may be overstated due to a number of large businesses that were included in the sample. This is corrected for in the aggregated estimates.

Total annual compliance cost to Victorian businesses in 2017 ¹	\$939,566,678
Average fully developed cost of claims ²	\$65,354
Prevented cost to employees and society per case of injury/illness ³	\$524,275
Break-even number of cases of injury/illness per year ⁴	1,792
% total claims in 2014-15 ⁵	17%
Break-even number of cases as a % of employees at risk ⁶	0.08%

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²WorkSafe data (see Table 3.2). ³Calculated by adding the average fully developed cost of claims (direct cost) to an estimate of the average indirect cost of claims based on Safe Work Australia estimates which suggests that indirect costs are 7.02 times direct costs (Safe Work Australia, August 2015, *The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community,* Canberra). ⁴Total compliance cost to Victorian businesses divided by the prevented cost to employees and society per case. ⁵Based on WorkSafe data (see Table 3.2). ⁶Calculated as a ratio of the break-even number of cases of injury/illness per year to the estimated number of employees at risk of this hazard (see Table 3.2).

6.5.2 Option 2 – select improvement changes

Under Option 2, changes proposed in relation to the Manual Handling Regulations are:

- Streamline the definition of 'hazardous manual handling'
- Remove references to 'task'
- Remove sub-provision specifying that hazardous manual handling can be identified in a 'class of tasks'.

Based on a review of the proposed changes and subsequent discussions with WorkSafe, it was considered that these proposals would not result in any substantive quantifiable costs or benefits to employers. From a qualitative perspective, the changes will streamline and improve the usability of the Manual Handling Regulations, and reduce confusion that can arise in some cases and thereby potentially improve compliance.

6.6 Impact on small business and competition assessment

In light of the above finding that the overall cost impacts of the proposed changes to the Manual Handling Regulations under Option 2 would be minor, it is not considered that there would be any material impact on small business and competition as a result of these proposals.

7 Noise

7.1 Background

Noise exposure is one of the most prevalent hazards in the workplace environment⁷² and occupational noise-induced hearing loss (ONIHL), a condition caused by noise exposure, is a common occupational disease.⁷³

The degree of hearing loss from ONIHL is generally cumulative with the risks increasing with both the length of time exposed and the level of noise. Hearing loss is initially temporary, but continued exposure can mean that hearing loss becomes permanent.⁷⁴ Due to its progressive nature, ONIHL is normally considered to be a disease rather than an injury.

Occupational noise in combination with hearing loss can interfere with recognition of speech and warning signals and may contribute to balance dysfunctions.⁷⁵ Among those who experience ONIHL, 20 per cent or more also suffer from tinnitus.⁷⁶ Exposure to excessive noise can also cause foetal hearing impairment.⁷⁷ In addition to ONIHL, there is growing evidence that suggests exposure to excessive noise is related to non-auditory psychological effects relating to ability to concentrate and non-auditory health effects in the cardio-vascular, endocrine, metabolic, gastro-intestinal and neurological systems.⁷⁸

In Victoria, the regulatory requirements for noise support the general duties of the OHS Act and include provisions that specify how the general duties are to be discharged when dealing with risks associated with noise exposure. The regulatory requirements prescribe the minimum standard for the control of risk associated with noise exceeding the noise exposure standard and prescribe audiometric tests and audiological examinations in certain situations.

⁷² Verbeek, JH, Kateman, E, Morata, TC, Dreschler WA, Mischke C., (2012), *Interventions to prevent occupational noise-induced hearing loss*, Cochrane Database of Systematic Reviews, Issue 10

⁷³ Safe Work Australia, (2010), Occupational Noise Induced Hearing Loss in Australia – Overcoming barriers to effective noise control and hearing loss prevention,

⁷⁴ Victorian WorkCover Authority, (2005), *Guide for assessing and fixing noise problems at work*

⁷⁵ Safe Work Australia, (2014), Occupational disease indicators

⁷⁶ Ibid.

⁷⁷ Safe Work Australia, (2010), Occupational Noise Induced Hearing Loss in Australia – Overcoming barriers to effective noise control and hearing loss prevention

⁷⁸ Victorian WorkCover Authority, (2005), *Guide for assessing and fixing noise problems at work*

7.2 Nature and extent of the problem

7.2.1 Description of problem

ONIHL is an irreversible condition with substantial negative social impacts. It is also a preventable disease. The link between exposure to occupational noise and hearing loss is indisputable and the risk control measures are well-understood. As ONIHL mostly develops due to long-term exposure to noise, employers and employees may underestimate or discount the risk of ONIHL and therefore underinvest in actions to prevent it. For example, not wearing hearing protectors when undertaking a noisy task or not prioritising noise reduction when purchasing new plant.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of occupational noise.

The Noise Regulations supplement the general duties under the OHS Act by:

- **Prescribing mandatory performance standards** For example, an employer must ensure that no employee is exposed to noise exceeding the noise exposure standard (r. 3.2.4)
- **Prescribing mandatory processes to be followed** For example, an employer must work through a hierarchy of control measures to ensure that no employee is exposed to noise exceeding the exposure standard (r. 3.2.4)
- Placing obligations on employers to keep records For example, records must be kept of determinations (r. 3.2.8) and hearing test results (r. 3.2.14).

Prescribing specific measures in the Regulations assists employers to meet their obligations under the OHS Act and protects employees from the risk of ONIHL. The specific measures reduce the exposure of employees to noise and also require the hearing of employees exposed to noise to be monitored so that any hearing loss can be identified and preventative action taken. The use of specific obligations enables an employer to establish compliance and WorkSafe to take efficient enforcement action where there is noncompliance.

7.2.2 Incidence and trends

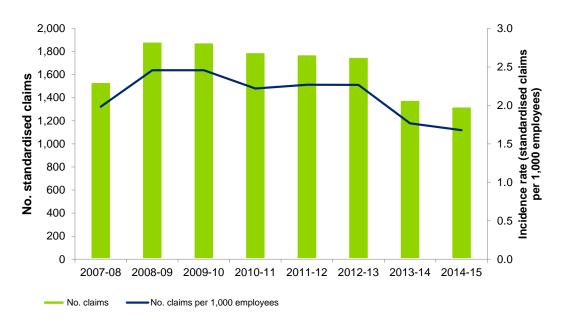
There is only limited information available on how many employees in Victoria (and Australia) are exposed to, or affected by, excessive noise. This is due in part to the long latency of the disease, meaning there is a lag in time between exposure and hearing loss, and significant costs and difficulties associated with obtaining representative epidemiological data.⁷⁹

⁷⁹ Ibid.

As with many occupational diseases, it is difficult to estimate how many people in Victoria at any one time (the prevalence) have ONIHL, and how many new cases occur each year (the incidence). It is even more difficult to estimate the prevalence and incidence of exposure to excessive noise. Furthermore, there may also be a level of fatalism (i.e. the belief that hearing loss is inevitable) among employees which may in turn affect whether or not a workers' compensation claim is submitted for hearing loss. Studies suggest that only one in four eligible employees make a claim for ONIHL.⁸⁰

Without accurate estimates of the prevalence and incidence of ONIHL and noise exposure, it is difficult to fully evaluate the extent of the problem. However, it is likely that its extent and the associated costs are underestimated rather than overestimated.

Between 1 July 2007 and 30 June 2015 there were 13,340 noise-related compensation claims submitted (approximately six per cent of all standardised claims in this period).⁸¹ Chart 7.1 shows the number and incidence of standardised claims for ONIHL on an annual basis. While the number and incidence of compensation claims shows a downward trend since 2008-09, a significant number of employees continue to be exposed to excessive noise in the workplace.





Source: WorkSafe data.

As noted, the number of noise related claims has decreased over recent years. While the operation of the OHS Regulations has coincided with a reduction in noise related claims, it is difficult to identify with any certainty the extent to which the decrease can be attributed to the existing OHS Regulations. Other factors which could at least partly explain the reduction include improved health and safety practices, a shrinking Victorian manufacturing sector (where noise exposure is most prevalent) and proximity to retirement age where an

⁸⁰ ISCRR, (2010), Research Brief No. 1110-004-R8 NIHL: Possible long-term research projects

⁸¹ WorkSafe data.

affected employee may seek payment for a hearing aid through the Australian Hearing Services Program (a Commonwealth scheme) rather than pursuing a workers' compensation claim.

Based on an analysis of industry subdivisions possibly affected by noise hazards, there were approximately 789,415 people employed in these industries in Victoria in 2014-15.⁸² This is an increase from 2007-08 when there were approximately 774,463 people employed in these industries in Victoria. Broadly speaking, these subdivisions fell within the following industry divisions: agriculture, forestry and fishing, mining, manufacturing, electricity, gas, water and waste services, construction, transport, postal and warehousing, public administration and safety, arts and recreation services, and other services.

7.3 Objectives of regulation

The Noise Regulations aim to reduce the incidence and severity of hearing loss resulting from excessive exposure to noise. Under the Regulations an employer must ensure that no employee is exposed to noise exceeding the noise exposure standard, an employer must also work through a hierarchy of control measures to ensure that no employee is exposed to noise exceeding the standard and that relevant records are kept.

7.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for noise are discussed in this section. These options were tested by WorkSafe and the Noise and Confined Spaces SRG and assessed against the aims of the review process outlined in Section 1.3. The Noise and Confined Spaces SRG consisted of employee and employer representatives with expertise in this topic area.

7.4.1 Policy proposals under Option 2- select improvement changes

7.4.1.1 Hearing protectors

Regulation 3.2.4(1)(d) requires that if higher order controls such as substituting quieter plant, using engineering controls or administrative controls fail to adequately control the risk, an employer must provide hearing protectors to reduce the exposure of the employee to noise, so that it does not exceed the noise exposure standard. Regulation 3.2.4 (2) outlines matters that must be considered when selecting hearing protectors and r. 3.2.4 (3) then allows employers to select hearing protectors in this way for several employees if they are exposed to identical sources of noise and their exposure is likely to be the same.

⁸² ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015

It is proposed to remove r. 3.2.4 (2) and r. 3.2.4 (3) as the material in these regulations merely provides information about how to comply with r. 3.2.4(1)(d) and lends itself to guidance. As such, this is a minor change to move process-based guidance to the relevant Compliance Code.

7.4.1.2 Written risk control plan

Part 3.2 of the OHS Regulations requires that if an employer proposes to implement a higher-order control measure under r. 3.2.4, but it is not reasonably practicable to do so within six months of the assessment, the employer must make a written risk control plan under r. 3.2.5. The written plan must describe the actions needed to implement safety measures and the timeframes for those actions to be made accessible to affected employees and HSRs. This obligation was carried over from the Occupational Health and Safety (Noise) Regulations 1992 to allow for a period of transition when the noise exposure standard was reduced from 90db to 85db in recognition that many employers would not be able to meet the lower exposure standard by implementation of engineering controls in the short term. Consequently, this provision is now redundant.

Option 2 proposes to remove the requirement for a written risk control plan under r. 3.2.5 where implementation of a higher order of control is delayed by up to six months. The focus of HSRs and WorkSafe would be on whether or not the risk is being controlled, rather than whether a written risk control plan had been prepared. An employer would still be required to control risk applying the hierarchy of control at r. 3.2.4. If it is not reasonably practicable to implement a particular control immediately, a duty holder would need to do this as soon as it becomes reasonably practicable. The aim of this proposal is to streamline the Noise Regulations without reducing safety outcomes.

7.4.1.3 Audiological examinations

The OHS Regulations also include a provision that an audiological examination is undertaken if audiometric testing identifies that there is a reduction in an employee's hearing level equal to or greater than 15db over two consecutive hearing tests. Under the current Regulations, it is possible that employees receiving more frequent audiometric testing (e.g. every year) may not show a 15db reduction in hearing over two consecutive audiometric tests, even though they may show a reduction over a two year period. Due to the current wording of r. 3.2.12, an employee falling into this category would not need to be referred for an audiological examination because the results of two consecutive audiometric tests failed to indicate a reduction in hearing of 15db or more.

To address this issue, Option 2 proposes to clarify that the trigger for an audiological examination is a reduction in hearing level of 15db or more over a two year period or less.

7.4.2 Other changes considered

7.4.2.1 Hearing protector signs and labels

Consideration was given to whether the requirement to provide signage and labels is proportionate to the risk and hence whether it could be removed. Sign-posting in areas where people may be exposed to noise above the exposure standard helps to notify employees and visitors that they should not enter these areas without wearing appropriate personal hearing protectors. The signage can prompt use of hearing protection and therefore is an additional safeguard against inadequate wearing of hearing protection. There is evidence that employers are able to comply with this provision at a low cost and it was therefore proposed to maintain the current approach.

7.4.2.2 Noise determination

Consideration was given to removing this provision on the basis that an employer would have to conduct some form of assessment to comply with r. 3.2.4 (control of exposure to noise) even if this provision were not in place.

However, it was proposed not to remove this provision. This approach is consistent with the Hazardous Substances, Lead and Asbestos parts which require atmospheric monitoring to be undertaken if there is uncertainty as to whether the exposure standard would be exceeded. Regulatory burden is not substantial as the trigger is uncertainty. This provides the duty holder with flexibility to either carry out a noise determination or implement control measures so noise levels are clearly below the exposure standard.

7.4.2.3 Audiometric testing

Consideration was given to aligning audiometric testing requirements with the model WHS Regulations. However, it was determined that the current OHS approach to audiometric testing should be retained as the WHS trigger of 'frequently required to use hearing protectors' is not as clear as the OHS trigger of 'employer required to provide hearing protectors' Changing the provision may lead to confusion amongst employers and be difficult to enforce thereby diminishing safety standards.

7.4.2.4 Record of determinations

Consideration was given to removing the requirement to make a written record of the determination that describes how the matters under r. 3.2.7(3) have been taken into account, and contains the results. Due to stakeholder feedback that this record was important as evidence that a determination has been undertaken, this was revised to a proposal to mandate that only the results of the determination be retained. However, upon further consideration, it was proposed not to remove this requirement. This was on the basis that the description of how the prescribed matters were taken into account is necessary for clarity. A noise result (i.e. a number) on its own cannot be interpreted without information about the circumstances on the day of the measurements.

7.5 Assessment of options

7.5.1 Option 1 – remake existing regulations

Under Option 1, the existing 'Part 3.2 – Noise' would be re-made which would effectively mean the continuation of the existing requirements for another ten years. Under this scenario, the slight downward trend in work-related hearing loss injuries and illnesses experienced over the last decade would be expected to continue into the future.

7.5.1.1 Costs

Based on the results of the one-to-one interviews and the web-based survey, the total cost of complying with noise-related obligations in the OHS Act and Regulations is projected to be \$436 million per year in 2017. Of this total cost, approximately \$88 million is attributable to the OHS Regulations, representing 2.9 per cent of the total costs of the OHS Regulations. Based on the results of the interviews and survey, the majority of these costs accrue to the construction (72%); other services (11%); and agriculture forestry and fishing (5%) sectors.⁸³

Of those that reported noise-related OHS Act and Regulation compliance costs, the average cost was \$12,132 per business per year with estimates ranging between \$30 and \$223,380.⁸⁴ The drivers of this cost were risk control (73%), audiometric testing (22%), audiological examinations (2%) and other requirements (3%). When broken down by business size, the average cost was \$9,679 for small businesses (between \$45 and \$223,380), \$8,136 for medium sized businesses (between \$30 and \$81,292) and \$29,076 for large businesses (between \$800 and \$128,000).

7.5.1.2 Benefits

The primary benefit associated with the Noise Regulations is the reduction in cases of ONIHL and associated costs. Based on the total cost to society associated with hearing loss compensation claims, it is possible to estimate the number of cases that would need to be prevented in order for the total quantified benefits of prevention to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that 509 cases of ONIHL would need to be prevented per year in order for the benefits of the Noise Regulations to equal the compliance costs to Victorian businesses, as shown in Table 7.1. This represents 38 per cent of the total number of hearing loss claims in 2014-15. Put another way it would require the prevention of six ONIHL claims for every 10,000 employees at risk of ONIHL. WorkSafe considers it feasible and reasonable that the regulations would prevent the number of claims required for the benefits to be greater than the compliance costs. When employees comply with the regulations, employees exposure to noise in the workplace will be reduced and as hearing loss is monitored, preventative action can be taken where excessive hearing loss is identified. Prevention of hearing loss also requires the use of hearing protectors by employees when this is the risk control measure.

⁸³ Given the small sample size relative to the overall number of businesses across the Victorian economy, these estimates of the split in total costs by industry are illustrative only.

⁸⁴ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all. Further, this estimate may be overstated due to a number of large businesses that were included in the sample. This is corrected for in the aggregated estimates.

Table 7.1 : Break-even analysis – noise

Total annual compliance cost to Victorian businesses in 2017 ¹	\$87,517,922
Average fully developed cost of claims ²	\$21,441
Prevented cost to employees and society per case of injury/illness ³	\$172,001
Break-even number of cases of injury/illness per year ⁴	509
% total claims in 2014-15 ⁵	38%
Break-even number of cases as a % of employees at risk ⁶	0.06%

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²WorkSafe data (see Table 3.2). ³Calculated by adding the average fully developed cost of claims (direct cost) to an estimate of the average indirect cost of claims based on Safe Work Australia estimates which suggests that indirect costs are 7.02 times direct costs (Safe Work Australia, August 2015, *The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community,* Canberra). ⁴Total compliance cost to Victorian businesses divided by the prevented cost to employees and society per case. ⁵Based on WorkSafe data (see Table 3.2). ⁶Calculated as a ratio of the break-even number of cases of injury/illness per year to the estimated number of employees at risk of this hazard (see Table 3.2).

7.5.2 Option 2 – select improvement changes

7.5.2.1 Remove requirement for written risk control plan

It is proposed to remove the requirement for a written risk control plan under r. 3.2.5 where implementation of a higher order of control is delayed by up to six months.

Of the 22 business that were asked about the impacts of this proposal in the one-to-one interviews, 13 businesses had implemented risk control measures for noise in accordance with the prescribed hierarchy of risk control measures. Of those 13 businesses, three had completed a written risk control plan in the past because a proposal to implement a higher-order control measure could not be implemented within six months of the assessment. All three stated that this proposal would not result in any cost savings to their business.

These results suggest that a small proportion (approximately 14%) of businesses for which the Noise Regulations apply have completed a written risk control plan in the past because a proposal to implement a higher-order control measure could not be implemented within six months of the assessment. All of these businesses reported that the proposal to remove the requirement for a written risk control plan would not result in any substantive cost savings to their business. No further comments were provided on the merits of this proposal.

7.5.2.2 Hearing protectors

Based on a review of the proposed changes it was considered that the proposal to remove regulations that mandate the consideration of certain matters when selecting hearing protectors would not result in any substantive quantifiable costs or benefits to employers. From a qualitative perspective however, it is noted, that guidance will provide greater information to employers and reduce confusion. Guidance can also be updated more readily as the available types of hearing protectors change.

7.5.2.3 Trigger for audiological exam

It is proposed to clarify that the trigger for an audiological examination is a reduction in hearing level of 15db or more over a two year period regardless of how many tests have been conducted.

Of the 14 businesses who stated in the one-to-one interviews that they currently conduct audiometric tests, only one said that it would result in additional costs. This is because almost all of the businesses spoken with conduct tests every two years, and not more regularly. The one medium business who stated that this change would result in costs, was unable to estimate the likely impact, but stated the cost impact would be moderate. Three out of ten businesses said this would result in a change in injuries and illnesses with all three saying they would decrease. Two anticipated a moderate impact with the third anticipating a significant impact.

These results suggest that only a small proportion (approximately 8%) of businesses that conduct audiometric tests would be impacted by this change. For those impacted, the proposed change would reportedly result in increased costs, the extent to which is unknown. Some businesses (approximately 30%) consider this proposal would result in a reduction in cases of hearing-related injuries and illnesses in the workplace, with the impact being moderate to significant.

7.5.2.4 Summary

The above analysis suggest that the proposed changes to the Noise Regulations would not result in any cost impacts on Victorian businesses, with the exception of a small number of businesses who may experience increased costs as a result of the proposal to clarify the trigger for an audiological examination. Only one medium business reported this as a potential cost, but was unable to estimate the extent of the impact other than to say it would be 'moderate'. The above analysis also suggests that the proposed changes may result in some benefits. Such benefits include greater information to employers and reduced confusion as a result of the proposal to remove regulations that mandate the consideration of certain matters when selecting hearing protectors, and reduced cases of hearing-related injuries and illnesses in the workplace as a result of the proposal to clarify the trigger for an audiological examination. Although the proposal to remove the requirement for a written risk control plan where implementation of a higher order of control is delayed by up to six months could conceivably result in cost savings to some businesses, none of the businesses consulted as part of this RIS stated that this proposal would result in such cost savings to them. Nonetheless, this change would result in Regulations that are more consistent.

7.6 Impact on small business and competition assessment

In light of the above finding that the overall cost impacts of the proposed changes to the Noise Regulations under Option 2 would be minor, it is not considered that there would be any impact on small business and competition as a result of these proposals.

8 Falls

8.1 Background

Falls from height can occur anywhere a person can fall from one level to another. Many types of work can require an employee to access areas that are above the ground, which creates the potential to fall involuntarily. Other circumstances in which a person may fall from a height are where they are at or near ground level, or below ground level but are required to work in close proximity to a hole, pit, shaft or opening of any sort that is of sufficient dimensions to allow them to fall into the opening.

Employees may also be exposed to the risk of a fall when working near an unprotected edge (e.g. the edge of a roof), on a sloping surface, on a fragile, slippery or potentially unstable surface, or while on any plant or structure. Similarly, the general public can also be put at risk of a fall if they are exposed to any of these situations on a work site due to inadequate or absent control measures in a workplace that is publically accessible. Further, the introduction of equipment for working at height can itself also produce risks as it may create fall risks if not designed appropriately for the assigned task, not installed, used or maintained as intended, or not used with other control measures.

Falls from height or to depths are hazards that can arise in many sectors of the workforce. By way of example, the hazards range from situations where an employee can fall from a ladder or piece of furniture in the process of retrieving an item from a shelf, to situations where an employee can fall from inadequately installed or maintained scaffolding put in place for the construction of a multi-storey building.

'Part 3.3 - Prevention of Falls' in the OHS Regulations focuses on the risks of falls over two metres. This is consistent with the recommendations of Monash University's Accident Research Council report on injuries caused by a fall from height.⁸⁵ These regulations mandate the identification of falls hazards and specify the order for working through the risk control measures that must be used if reasonably practicable to achieve safety.

8.2 Nature and extent of the problem

8.2.1 Description of problem

A fall, particularly from height, can lead to severe injuries and even fatalities. A fall from heights can occur when a person is required to work at height and the risk of a fall is not identified and effectively controlled. As employers do not bear the full financial costs of injuries and fatalities they may underinvest in risk control measures. For example, an employer might use whatever control measure provides the quickest and easiest means to work at heights, without properly considering the safest risk control measure. In addition,

⁸⁵ Field et al, (1999), "Falls from Heights – A report on Claims, Fatalities and Injury Severity Outcomes, September.

employers may be subject to perverse incentives where pressures to reduce costs act as a disincentive to implement costly but more effective measures (such as safety barriers) to control risks associated with falls.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of involuntary falls of more than two metres.

The Prevention of Falls Regulations supplement the general duties under the OHS Act by:

- Prescribing mandatory processes to be followed The Prevention of Falls Regulations provide a hierarchy of higher order controls to minimise the risk of an involuntary fall from more than two metres. If an employer uses risk control measures listed in the hierarchy of control relating to the minimisation of risk, the employer must ensure emergency response procedures are established (r. 3.3.9)
- **Prescribing mandatory performance standards** Employers are required to meet certain standards if they use ladders (r. 3.3.5) or plant (r. 3.3.7) as risk control measures
- Placing obligations on employers to keep records If only administrative controls are used, the employer must record a description of the administrative control used and a description of the task to which the administrative control relates (r. 3.3.6).

The hazard specific hierarchy of control in 'Part 3.3 - Prevention of Falls' is aimed at minimising the risk of falls from more than two metres in height by mandating higher order risk control measures, and provides flexibility by qualifying the use of the higher order controls "so far as is reasonably practicable". The emergency response procedures are aimed at ensuring that rescues are undertaken expediently and that any risks associated with the rescue are considered before any incidents occur.

The Prevention of Falls Regulations reduces the risk of injury from an involuntary fall of more than two metres by prescribing processes and performance standards. Prescribing specific measures in the Regulations assists employers to meet their obligations under the OHS Act. The use of specific obligations enables an employer to establish compliance and WorkSafe to take efficient enforcement action where there is non-compliance.

8.2.2 Incidence and trends

Between 1 July 2007 and 30 June 2014 there were 10,281 falls from height-related compensation claims submitted.⁸⁶ These claims figures include all falls from heights, not just falls from above two metres, which are covered by Prevention of Falls Regulations. Over the same period, there were 30 fatalities from fall-related accidents.

The major causes of falls as recorded in claims data relates to ladders, trucks, roofs and falls associated with fall prevention devices such as the erection and dismantling of scaffolding, and the collapse of scissor and boom lifts and other work platforms. Falling through ceilings

⁸⁶ WorkSafe data.

is also a significant cause of falls. The claims data does not identify how far the person fell in most entries.

Based on an analysis of industry subdivisions possibly affected by falls hazards over two metres, there were approximately 910,964 people employed in these industries in Victoria in 2014-15.⁸⁷ This is an increase from 2007-08 when there were approximately 879,239 people employed in these industries in Victoria. Broadly speaking, these subdivisions fell within the following industry divisions: agriculture, forestry and fishing, mining, manufacturing, electricity, gas, water and waste services, construction, wholesale trade, transport, postal and warehousing, administrative and support services, public administration and safety.

8.3 Objectives of regulation

The primary purpose of the proposed Prevention of Falls Regulations is to prevent falls from heights above two metres that occur in the workplace by prescribing risk control measures to be applied when there is a risk of a fall of two metres or more.

8.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for prevention of falls are discussed in this section. These options were tested by WorkSafe and the Prevention of Falls SRG and assessed against the aims of the review process outlined in Section 1.3. The Prevention of Falls SRG consisted of employee and employer representatives with expertise in this topic area.

8.4.1 Policy proposals under Option 2- select improvement changes

8.4.1.1 Changes to clarify that legislative provisions apply to falls below two metres

Under the OHS Regulations (r. 1.1.5), the term 'fall' is defined in relation to Part 3.3 to mean a person's involuntary fall from more than two metres. However, feedback from stakeholders indicates that the two metre threshold creates a perception that no controls are required for risks of falls below two metres despite the requirement under the OHS Act to uphold a general duty of care with regard to the health and safety of employees and

⁸⁷ ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015

members of the public.⁸⁸ This can result in less attention to remedial steps to prevent falls from lesser height.

Consideration was given to three different options for addressing this issue, as outlined below. It is proposed to retain the current definition of a fall but make some minor changes to clarify that safety obligations still apply (under the OHS Act) in relation to falls below two metres. Specifically, a note would be inserted in the application provision to make it clear that safety obligations still apply in relation to risks of falls below two metres. The other two options considered to address this issue are outlined below.

8.4.2 Other changes considered

8.4.2.1 Change the definition of a fall

To address the issue discussed above regarding the potential for employers to misunderstand their OHS obligations in relation to the risk of falls below two metres, consideration was given to a number of options. The following three options were assessed:

- Option A Retain the current definition of 'fall', but make some minor changes to clarify the requirements under the OHS Act that apply to falls below two metres
- Option B Define risk of a fall as "from one level to another", consistent with the model WHS Regulations. The practical changes for employers under this option would be the requirement to work through the hierarchy (using specific control measures) for falls at any level, not just falls above two metres. The specific control measures would need to be applied to falls risks below two metres, as well as above two metres. This would most significantly affect industries outside of Construction, who have not been required to step through a hierarchy for falls below two metres
- Option C Retain the current control of risk hierarchy that applies to falls of two metres and above and insert an additional hierarchy, which would apply to risks of falls below two metres. The practical changes for employers under Option 3 is that they would be required to work through one hierarchy for falls above two metres using the existing specific control measures, and work through another hierarchy for falls below two metres. This is similar to the approach that already applies to the construction industry. This would most significantly affect industries outside of Construction, who have not been required to step through a hierarchy for falls below two metres.

It is proposed to proceed with Option A – Retain the current definition of 'fall', but make some minor changes to clarify the requirements under the OHS Act that apply to falls below two metres – as reflected in Option 2 of this RIS.

8.4.2.2 Terminology used in hierarchy of control and ranking of controls

Issues about terminology have been raised by stakeholders, particularly about whether the hierarchy of control for falls prevention needs to be clarified due to some confusion over the word "passive" in relation to passive falls prevention devices. Stakeholders also raised

⁸⁸ The group also noted a coroner's comments that the distinction drawn by industry and authorities between working above and below two metres is "dangerous and illusory", and results in less attention to remedial steps to prevent falls from lesser height.

queries as to whether some particular devices are 'passive fall prevention devices' or 'work positioning systems (work boxes and swing stages)'.

Consideration was given to changing the OHS Regulation terminology in these areas. However, it is proposed to maintain the current terminology. An analysis of claims data indicated low numbers of claims and no fatalities, so changing the classification of these particular devices was not considered warranted. Further, despite this issue being raised by some stakeholders, others were not aware of any known confusion caused by the word "passive" when describing passive fall prevention devices. Further explanation is provided in the Prevention of Falls in General Construction Compliance Code and the Prevention of Falls in Housing Construction Code of Practice, and can also be included in any new Codes or guidance.

8.4.2.3 Working alone

Employers are subject to a number of obligations that would require them to address risks associated with working alone. For example, r. 3.3.9 requires an employer to ensure that emergency procedures, so far as reasonably practicable, are available to enable the rescue of an employee in the event of a fall and the provision of first aid to an employee who has fallen, and that an emergency procedure can be carried out immediately after the fall. Consideration was given as to whether there is a need for a specific regulation around people working alone at height. However, it was determined that further regulation around persons working alone at height was not necessary. This was based on the risks associated with working alone needing to be identified and addressed as part of the general safety duties on employers in the Act, in particular section 21 and a review of enforcement activity finding no relevant prosecutions in 2014-15 indicating compliance with the Act duties.

8.5 Assessment of options

8.5.1 Option 1 – remake existing regulations

Under Option 1, the existing 'Part 3.3 - Prevention of Falls' would be re-made in its current form. This would effectively mean the continuation of the existing requirements for another ten years.

8.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with falls-related obligations in the OHS Act and Regulations is projected to be \$2.14 billion per year in 2017. Of this total cost, approximately \$487 million is attributable to the OHS Regulations, representing 16.0 per cent of the total costs of the OHS Regulations. Based on the results of the interviews, the majority of these costs accrue to the construction (50%); information media and telecommunications (19%); retail trade (13%); and rental, hiring and real estate services (12%) sectors.

Of those who reported OHS Act and Regulation compliance costs associated with falls prevention, the average cost was approximately \$60,000 per business per year with

estimates ranging between \$10 and \$1.0 million.⁸⁹ The drivers of this cost were risk control (76%), hazard identification (22%) and other requirements (2%). When broken down by business size, the average cost was approximately \$50,000 for small businesses (between \$10 and \$220,000), \$22,000 for medium businesses (between \$64 and \$169,286) and \$124,000 for large businesses (between \$1,426 and \$1.0 million).⁹⁰

8.5.1.2 Benefits

The primary benefit associated with the Prevention of Falls Regulations is the reduction in injuries and fatalities resulting from falls in the workplace. Based on the total cost to society associated with falls compensation claims, it is possible to estimate the number of cases that would need to be prevented in order for the total quantified benefits of prevention to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that 928 injuries and three fatalities from falls in the workplace would need to be prevented per year in order for the benefits of the Prevention of Falls Regulations to equal the compliance costs to Victorian businesses, as shown in Table 8.1. This represents 63 per cent of the total number of falls claims and fatalities in 2014-15. Put another way it would require the prevention of an injury or fatality for one in every 1000 employees exposed to the risk of fall greater than two metres. WorkSafe considers it feasible and reasonable that the regulations would prevent the number of claims required for the benefits to be greater than the compliance costs. The Prevention of Falls Regulations reduce the risk of injury from an involuntary fall of more than two metres by prescribing processes and performance standards to be followed.

⁸⁹ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all.

⁹⁰ It is possible that costs may be higher for small employers relative to medium employers as many large construction companies are classed as small employers due to the fact that they contract out most of their labour force. However, these estimates are based on a sample of businesses so results from the comparison across different businesses sizes should be interpreted with caution.

Table 8.1: Break-even analysis – falls

· · · · · · · · · · · · · · · · · · ·	
Total annual compliance cost to Victorian businesses in 2017 ¹	\$486,810,172
Average fully developed cost of claims ²	\$63,838
Prevented cost to employees and society per case of injury/illness ³	\$512,113
Prevented cost to employees and society per fatality ⁴	\$4,264,505
Break-even number of cases of injury/illness per year ⁵	928
Break-even number of fatalities per year ⁶	3
% total claims and fatalities in 2014-15 ⁷	63%
Break-even number of cases as a % of employees at risk ⁸	0.10%

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²WorkSafe data (see Table 3.2). ³Calculated by adding the average fully developed cost of claims (direct cost) to an estimate of the average indirect cost of claims based on Safe Work Australia estimates which suggests that indirect costs are 7.02 times direct costs (Safe Work Australia, August 2015, *The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community*, Canberra). ⁴Based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars (Department of Treasury and Finance, (2013), Economic Evaluation for Business Cases, Melbourne). This estimate has been inflated to 2015 dollars. ⁵98 per cent of the total compliance cost to Victorian businesses divided by the prevented cost to workers and society per case of injury. ⁶Two per cent of the total compliance cost to Victorian businesses divided by the prevented cost to workers and society per fatality. ⁷Based on WorkSafe data (see Table 3.2). ⁸Calculated as a ratio of the break-even number of cases of injury/illness and fatalities per year to the estimated number of employees at risk of this hazard (see Table 3.2).

8.5.2 Option 2 – select improvement changes

8.5.2.1 Changes to clarify that legislative provisions apply to falls below two metres

It is proposed to retain the current definition of a fall but make some minor changes to clarify that safety obligations still apply (under the OHS Act) in relation to falls below two metres.

Of the 36 businesses interviewed in relation to this proposal, none reported that it would result in a cost to their business.

8.5.2.2 Summary

The above analysis suggests that the proposed change to the Prevention of Falls Regulations under Option 2 would not result in any cost impacts on Victorian businesses. It may, however, result in some safety benefits to the extent that the clarification included in the OHS Regulations reduces employers' misunderstanding of their OHS obligations in relation to the risk of falls below two metres.

8.5.3 Other changes considered

8.5.3.1 Change the definition of a fall

As part of the one-to-one interviews, a number of comments were provided about the three options to address the issue of employers potentially misunderstanding their OHS obligations in relation to the risk of falls below two metres. Specifically, ten businesses stated that controlling the risk of falls less than two metres would be very costly and that they would not support any changes over and above the inclusion of additional words in

the OHS Regulations to clarify that legislative provisions apply to falls below two metres (Option A). One of these businesses stated that "WorkSafe should encourage industry to identify risks and spread awareness, but there's no need to overcomplicate the OHS Regulations by changing the definition of a fall". Two businesses commented that having a separate hierarchy for falls below two metres would be too complicated and another two stated that the overall costs of controlling falls below two metres would outweigh the benefits.

Other businesses were supportive of a major change to address this issue. Specifically, four businesses expressed a preference for Victoria adopting the WHS definition of a fall (Option B) and five stated that they would prefer if Victoria adopted an approach involving a separate hierarchy of control falls for below two metres (Option C). The potential impact of these options is discussed below.

Option A – Changes to clarify that legislative provisions apply to falls below two metres

This option proposes to retain the current definition of a fall but make some minor changes to clarify that safety obligations still apply (under the OHS Act) in relation to falls below two metres. Based on feedback, it was proposed to proceed with this option, as reflected in Option 2 (select improvement changes) of this RIS. As mentioned in Section 8.5.2, no businesses reported any costs associated with this option as part of the one-to-one interviews.

Option B – Define risk of a fall as "from one level to another"

This option proposes to remove the current two metre threshold in the OHS Regulations definition of fall and adopt the WHS definition "a fall from one level to another".

Information on the impact of this option was sought through the one-to-one interviews with Victorian businesses. Of the 36 businesses interviewed in relation to this option, 31 per cent reported that it would result in a cost to their business,⁹¹ 53 per cent reported that it wouldn't because they already comply and 17 per cent were unsure. Of those that said they would face costs, ten businesses were able to estimate the cost and one wasn't. The average estimate provided by the ten businesses was \$8,573 per year with estimates ranging between \$1000 and \$36,650. After weighting the results according to business size, the average cost can be estimated at \$10,512 per year. Note that small businesses reported higher costs on average relative to medium and large businesses, so this adjustment for business size increases the estimate of average costs.

In order to provide an illustrative guide as to the overall impact of this option, data from the interviews was used to estimate the impact across all businesses. Based on an analysis of industry subdivisions, it was estimated that up to 246,312 businesses have the potential for the presence of falls hazards in the workplace. This was based on the same analysis of industry subdivisions where falls hazards are likely to be present as mentioned in Section 8.2.2, it also included some additional subdivisions that may be impacted by the increase in

⁹¹ Of the 11 businesses who said that they would face a cost as a result of Option B, three were businesses that stated that they operate in other states and territories. These businesses would already be complying with the model WHS laws in their operations in other states and territories.

scope of the falls Regulations including subdivisions within retail trade, information media and telecommunications, education and training, and other services. Under the assumption that the interviews are broadly representative, it can be estimated that 41 per cent⁹² of the 246,312 businesses potentially affected actually have falls hazards in the workplace, and only 31 per cent of those actually faced a cost, suggesting that approximately 31,306 would face a cost as a result of this proposal. The total cost associated with this option can therefore be estimated at \$329 million per year relative to Option 1.

When asked about any changes in safety across all businesses in Victoria as a result of this option, 61 per cent of businesses who answered this question anticipated that this change would result in a decrease in illnesses and injuries across Victoria. Ten of those businesses expected a small impact, eight a moderate impact and two a significant impact. Note that many of the businesses who said it would improve safety weren't necessarily supportive of this change. For example, some were of the view that it might improve safety but that the costs would outweigh the benefits of this improved safety.

As this option increases national consistency it is part of the aggregate Option 3 – increased national consistency.

Option C – Retain the current control of risk hierarchy that applies to falls of two metres and above and insert an additional hierarchy that would apply to risks of falls below two metres

This option proposes to retain the current specific risk control hierarchy for falls of two metres and above and add a more generic hierarchy for risks of falls below two metres.

Information on the impact of this proposal was sought through the one-to-one interviews with Victorian businesses. Of the 36 businesses interviewed in relation to this option, 14 per cent reported that it would result in a cost to their business, 64 per cent reported that it wouldn't because they already comply and 22 per cent were unsure. The average estimate provided by the five businesses that said they would face costs was \$2,172 per year with estimates ranging between \$500 and \$5,502. After weighting the results according to business size, the average cost can be estimated at \$1,104 per year.

In order to provide an illustrative guide of the overall impact of this option, the data from the interviews was used to estimate the impact across all businesses. Based on an analysis of industry subdivisions, it was estimated that up to 246,312 businesses have the potential for the presence of falls risks in the workplace. This was based on the same analysis of industry subdivisions where falls hazards are likely to be present as mentioned in Section 8.2.2, it also included some additional subdivisions within retail trade, information media and telecommunications, education and training, and other services. Under the assumption that the interviews are broadly representative, it can be estimated that 41 per cent⁹³ of the 246,312 businesses potentially affected actually have falls risks in the workplace, and only

⁹² Of the businesses interviewed that could potentially have had falls hazards in the workplace, actually only 41 per cent reported having falls hazards.

⁹³ Of the businesses interviewed that could potentially have had falls hazards in the workplace, actually only 41 per cent reported having falls hazards.

14 per cent of those actually faced a cost, suggesting that approximately 31,306 would face a cost as a result of this proposal. The total cost associated with this option can therefore be estimated at \$15.6 million per year relative to Option 1.

When asked about any changes in safety across all businesses in Victoria as a result of this option, 69 per cent of businesses anticipated that this change would result in a decrease in illnesses and injuries across Victoria. Ten of those businesses expected a small impact, five a moderate impact, two a significant impact and one was unsure. Note that many of the businesses who said it would improve safety weren't necessarily supportive of this change.

8.6 Impact on small business and competition assessment

In light of the above finding that there would be no cost impact of the proposed change to the Prevention of Falls Regulations under Option 2, it is not considered that there would be any material impact on small business and competition as a result of this proposal.

9 Confined spaces

9.1 Background

The term "confined space" is defined under the OHS Regulations to mean a vat, tank, pit, pipe, duct, flue, oven, chimney, silo, container, reaction vessel, receptacle, underground sewer, shaft, well, trench, tunnel or other similarly enclosed or partially enclosed structure that is to be entered by a person and could be affected by an additional risk factor.

Confined space hazards are challenging because they may not be readily apparent. Confined spaces, by their nature, usually have poor ventilation and may be of small volume, so hazardous atmospheres can accumulate quickly. Further, work in confined spaces can be hazardous because relatively benign substances can create a hazardous environment due to risk from engulfment or lack of oxygen. The conditions inside a confined space can also change very quickly and the restricted access of these spaces can limit the ability of an employee to rapidly exit the space.

The risks of working in confined spaces include:

- Loss of consciousness, injury or death due to the immediate effects of airborne contaminants
- Fire or explosion from the ignition of flammable contaminants
- Asphyxiation resulting from oxygen deficiency
- Asphyxiation resulting from engulfment by stored material, including grain, sand, flour or fertiliser.

The most common causes of death and injury in confined spaces are asphyxiation or the inhalation of toxic gases or vapours. Other causes of death or injury may include contact with mechanical or electrical energy, explosions or engulfment in material.

Confined space incidents often result in multiple fatalities. Other employees, unaware of the risks, may enter a space to rescue a victim, but are then also overcome by the same toxic vapours or gases that affected the original entrant.

The OHS Regulations specify what is required to support employees to work safely in a confined space. This includes the use of entry permits, provision for continuous communication, establishing and rehearsing emergency procedures and monitoring work in a confined space.

9.2 Nature and extent of the problem

9.2.1 Description of problem

Deaths and injuries in confined spaces can occur in the workplace as employees and employers may find it hard to assess the risks or recognise the need to assess the risks of working in a confined space or may have difficulty obtaining information needed to assess such risks and manage them (e.g. due to poor instruction and training), including the correct procedures to follow during an emergency. This is because confined spaces can be dangerous even if they do not appear to be, and proper safety and rescue precautions must be taken when working in these spaces to prevent deaths and injuries. The safety of untrained first responders can also be at risk.

Injuries and fatalities can occur in confined spaces when:

- it is not recognised that a confined space is being entered
- a confined space is entered with inadequate risk control measures in place e.g. an entrant is exposed to a hazardous atmosphere
- an incident occurs in a confined space and rescue is attempted with inadequate risk control measures in place.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of confined spaces.

The Confined Spaces Regulations supplement the general duties under the OHS Act by:

- **Prescribing mandatory risk control measures or prohibitions** Mandatory risk control measures exist for signs (r. 3.4.12), entry permits (r. 3.4.14) and communications (r. 3.4.16)
- **Prescribing mandatory performance standards** Mandatory performance standards exist for oxygen % for purging (r. 3.4.9(1)(b)) and lower explosive limit for explosive gases (r. 3.4.11)
- Prescribing mandatory processes to be followed An employer must work through hierarchies of control measures (r. 3.4.2, r. 3.4.3, r. 3.4.4 and r. 3.4.7) and establish emergency response procedures (r.3.4.20, r.3.4.21, r.3.4.22 and r.3.4.23)
- Placing obligations on employers to keep records An employer must keep records (r. 3.4.15 and r. 3.4.19)
- Making the OHS Act work Upstream duties (r. 3.4.2, r. 3.4.3 and r. 3.4.4) provide clarification regarding how duty holders can comply with s.27, s.29 and s.30 of the OHS Act.

The specific measures prescribed in the regulations prevent a person unknowingly entering an identified confined space; specify how to work safely in a confined space, for example by monitoring the atmosphere; and require emergency response procedures to be established and rehearsed. Prescribing specific measures in the Regulations assists employers to meet their obligations under the OHS Act and protects employees and first responders from the risks associated with confined spaces. The use of specific obligations enables an employer to establish compliance and WorkSafe to take efficient enforcement action where there is non-compliance.

9.2.2 Incidence and trends

The classification of injuries and fatalities in data collected by WorkSafe does not specify when a confined space is involved and it is therefore not possible to quantify the number of standard compensation claims relating to confined spaces. A 2013 incident on a dairy farm in Gippsland where nine people were injured in relation to one confined space illustrate that the risks associated with confined spaces are present in Victoria.

Based on an analysis of industry subdivisions possibly affected by confined spaces hazards, there were approximately 245,588 people employed in these industries in Victoria in 2014-15⁹⁴, although the number of persons potentially subject to confined spaces hazards is likely to be substantially less than this. This is an increase from 2007-08 when there were approximately 217,302 people employed in these industries in Victoria. At least one business in the on-on-one interviews said that they sub-contract all work related to their confined spaces to specialists - this provides support for the assumption that the number of persons subject to confined spaces hazards is likely to be less than the number indicated. Broadly speaking, these subdivisions fell within the following industry divisions: agriculture, forestry and fishing, mining, manufacturing, electricity, gas, water and waste services, transport, postal and warehousing, health care and social assistance.

9.3 Objectives of regulation

The primary purpose of the proposed Confined Spaces Regulations is to prevent deaths and injuries in confined spaces. This is achieved by specifying what is required to support employees to work safely in confined spaces.

9.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for confined spaces are discussed in this section. These options were tested by WorkSafe and the Noise and Confined Spaces SRG and assessed against the aims of the review process outlined in Section 1.3. The Noise and Confined Spaces SRG consisted of employee and employer representatives with expertise in this topic area.

⁹⁴ ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015

9.4.1 Policy proposals under Option 2- select improvement changes

9.4.1.1 Remove supplier duties requirement (r. 3.4.4)

It is proposed to remove the requirement at r.3.4.4(2). Under r.3.4.4(2), suppliers must ensure that if the designer and/or manufacturer have not eliminated the need to enter a confined space (or associated risks) in an item of plant, then it becomes the responsibility of the supplier to eliminate the need for any person to enter the confined space so far as is reasonably practicable or otherwise reduce the need and associated risks as far as is reasonably practicable. It is unclear, however, how a supplier would be capable of adequately discharging this duty in practice. If a supplier was to organise the modification of the plant, then that supplier would also become a designer and/or manufacturer and therefore take on the responsibility for those duties at r.3.4.2 and 3.4.3. It is unlikely that a supplier would have access to the expertise engineering skills and facilities to achieve the safety outcome implicit in r.3.4.4.(2).

It is not, however, proposed to remove 3.4.4(1). The requirement at r. 3.4.4(1) is to ensure, so far as is reasonably practicable, the plant has been designed and manufactured in accordance with r 3.4.2 and 3.4.3. It is considered that this duty plays an important role with regards to importing suppliers who effectively serve as a 'gate-keeper' for plant entering Victoria. Often plant will be 'made to order' and the importing supplier has control over the specifications of the plant as part of the ordering process. In this instance, an active duty to ensure that the plant has been designed and manufactured to reduce the singular risk associated with the presence of confined spaces is both achievable and likely to result in positive safety outcomes. Critically, the duty in r. 3.4.4(1) is not absolute but rather it is tempered by 'so far as is reasonably practicable'. In practice this could be achieved by specifying in the ordering process that the plant must be designed and manufactured in accordance with the requirements at 3.4.2 and 3.4.3. This could be a consideration that would form part of the specifications to designers and manufacturers as part of the briefing process.

9.4.1.2 Alter period for which employer must retain entry permits (r. 3.4.15)

Under the OHS Regulations employees are required to have an entry permit before they enter a 'confined space' and the permits are required to be held for 30 days regardless of when the work finishes. This 30 day period is an arbitrary time period and has no bearing on safety outcomes.

To reduce record keeping requirements without reducing safety, it is proposed to amend the OHS Regulations to require that an entry permit be retained until the work is completed and for two years in the event of a notifiable incident. This replaces the requirement for a permit to be held for 30 days.

9.4.2 Other changes considered

9.4.2.1 Application to employers of emergency service employees (r. 3.4.1)

Consideration was given to adopting the WHS approach to only exempting employers of emergency service employees from certain obligations related to confined spaces rather than the exemption applying to the entire part as it does under the OHS Regulations. The model WHS Regulations only exempt emergency service employers and duty holders from complying with the confined space duties in relation to entry permits and signage; all the other duties apply to emergency service employers.

Emergency service employees are provided with comprehensive training and require flexibility to operate effectively in rescue situations. A move to the WHS approach may increase safety outcomes for emergency services employees however it may result in the diminution of safety outcomes for those needing rescue. Implementing the prescriptive requirements under Part 3.4 in advance of undertaking a rescue in all rescue circumstances for compliance purposes (rather than in response to the risks of particular circumstances) would cause delays in deploying the rescue, which would, in turn, reduce the effectiveness of the service and impact negatively on public safety.

It was determined to maintain the current approach as it was considered that flexibility is required to allow emergency service employees to operate effectively in rescue situations and that emergency service employers can provide for the safety of their employees through specialised and comprehensive training.

9.4.2.2 Confined space entry permit (r. 3.4.14)

Consideration was given to including additional entry permit requirements which are in the model WHS Regulations. Under the model WHS Regulations an entry permit must be completed by a competent person, the permit must be in writing, names of people permitted to enter are not limited to employees, permit must contain space for an acknowledgement that work in the confined space has been completed and that all persons have left the space.

However, it was determined to maintain the current approach as feedback from stakeholders indicates the existing permit requirements are working well in practice and there doesn't appear to be any safety benefit in adopting the more detailed record keeping requirements in the model WHS Regulations.

9.4.2.3 Definition and scope of confined spaces (r. 1.1.5)

Consideration was given to broadening the definition and scope of a confined space. The model WHS Regulations have a broader definition in that they do not require the confined space to have limited or restricted means for entry or exit. It was determined to maintain the OHS Regulations definition as it identifies spaces that pose the greatest risk and was considered a proportionate response to the risk.

9.5 Assessment of options

9.5.1 Option 1 – remake existing regulations

Under Option 1, the existing 'Part 3.4 - Confined Spaces' would be re-made in its current form. This would effectively mean the continuation of the existing requirements for another ten years.

9.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with obligations in the OHS Act and Regulations relating to confined spaces is projected to be \$25 million per year in 2017. Of this total cost, approximately \$2 million is attributable to the OHS Regulations, representing 0.1 per cent of the total costs of the OHS Regulations. Based on the results of the interviews and survey, the majority of these costs accrue to the manufacturing (83%); agriculture, forestry and fishing (8%) and mining sectors (3%).⁹⁵

Of those that reported OHS Act and Regulation compliance costs associated with confined spaces, the average cost was \$12,715 per business per year with estimates ranging between \$45 and \$104,151.⁹⁶ The drivers of this cost were risk control (80%), entry permits (16%) and other requirements (4%). When broken down by business size, the average cost was \$1,063 for small businesses (between \$45 and \$3,000), \$15,454 for medium businesses (between \$147 and \$104,151) and \$22,668 for large businesses (between \$2,234 and \$43,102).

9.5.1.2 Benefits

The primary benefit associated with the Confined Spaces Regulations is the reduction in deaths and injuries in confined spaces and associated costs. Based on the total cost to society associated with fatalities, it is possible to estimate the number of deaths that would need to be prevented in order for the total quantified benefits of prevention to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that approximately one death would need to be prevented every two years in order for the benefits of the Confined Spaces Regulations to equal the compliance costs to Victorian businesses, as shown in Table 9.1. Given the potential for fatalities in confined spaces when risk control measures are not in place, WorkSafe considers it feasible and reasonable that the regulations would prevent the number of fatalities required for the benefits to be greater than the compliance costs.

⁹⁵ Given the small sample size relative to the overall number of businesses across the Victorian economy, these estimates of the split in total costs by industry are illustrative only.

⁹⁶ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all. Further, this estimate may be overstated due to a number of large businesses that were included in the sample. This is corrected for in the aggregated estimates.

Table 9.1: Break-even analysis – confined spaces

Total annual compliance cost to Victorian businesses in 2017 ¹	\$2,305,994
Prevented cost per fatality ²	\$4,264,505
Break-even number of fatalities per year ³	0.5
Break-even number of cases as a % of employees at risk ⁴	0.0002%

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²Based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars (Department of Treasury and Finance, (2013), Economic Evaluation for Business Cases, Melbourne). This estimate has been inflated to 2015 dollars. ³Total compliance cost to Victorian businesses divided by the prevented cost per fatality. ⁴Calculated as a ratio of the break-even number of cases of injury/illness and fatalities per year to the estimated number of employees at risk of this hazard (see Table 3.2).

9.5.2 Option 2 – select improvement changes

9.5.2.1 Alter period for which employer must retain entry permits

It is proposed to require that an entry permit be retained until the work is completed, rather than for 30 days regardless of when the work finishes. Under this change, an entry permit would need to be retained for two years in the event of a notifiable incident. As a result of this proposed change, holding and filing costs for affected businesses are expected to decrease in most cases.

Of the 13 businesses that were asked about the impacts of this proposal in the one-to-one interviews, only one stated that the change would result in cost savings. For those that said the change wouldn't result in any cost savings, the main reason was because storage is typically electronic so there are no substantive costs given the relatively small file sizes involved. Some also said that they would keep these records for at least five years anyway for their own purposes.

For the one business who reported that they would have a cost saving, the total cost saving was estimated at \$250 per year. This was a medium-sized employer with significant operations, so is considered to be representative only of a subset of medium and large businesses with confined spaces. When averaged across the sample of medium and large employers who were asked about the impacts of this proposal (of which there were 10), the average cost saving can be estimated at \$25 per medium-large sized business per year.

Based on an analysis of industry subdivisions possibly affected by confined spaces hazards, there were approximately 45,820 businesses in these industries in Victoria in 2014-15⁹⁷, of which approximately 1,320 are medium-large employers. Assuming the results of the one-to-one interviews are representative, this suggests that the total cost saving to Victorian businesses as a result of this proposed change is \$33,000 relative to Option 1.

⁹⁷ ABS, (2015), *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014* (ABS release no: 8165.0), February 2015.

9.6 Impact on small business and competition assessment

In light of the above finding that only medium, and potentially large, businesses would be impacted by the proposed changes to the Confined Spaces Regulations under Option 2 (select improvement changes), it is not considered that there would be any impact on small business and competition as a result of this proposal.

10 Plant

10.1 Background

The term 'plant' covers such things as machinery, equipment, appliances, implements and tools. Examples of plant are tractors, forklift trucks, cranes, lifts, amusement structures, scaffolding, lathes and turbines.

Plant-related hazards (such as unguarded machinery, powered mobile plant overturning and people being struck or crushed by moving plant) are one of the most prevalent hazards in Victorian workplaces.

Part 3.5 of the OHS Regulations applies to a prescribed list of plant. It aims to protect people at work against the risks to health and safety arising from this plant and their associated systems of work. It includes generally applying requirements for the control of risk and also risk control requirements for specific types of plant.

Many hazards associated with plant can be eliminated by good design. Duties are, therefore, placed on designers, manufacturers and suppliers of plant in the first instance to ensure that, to the extent reasonably practicable, hazards are "engineered" out of plant or appropriate risk control measures are put in place *before* the plant arrives in the workplace. This includes duties to ensure that appropriate safety information is provided with the plant when it is supplied to workplaces.

For certain plant listed in a Schedule to the Regulations, Part 3.5 requires that their design be registered with WorkSafe. Plant covered includes certain pressure equipment, cranes, hoists and amusement structures. Plant design registration applies in addition to the specific requirements under the Act and Regulations seeking to ensure that those items of higher risk plant are designed to be safe. It enables WorkSafe to monitor at the point of registration the application of correct design standards and engineering principles and to influence appropriate design outcomes. It also allows WorkSafe to check for compliance with design verification requirements. Duties are also placed on employers and selfemployed persons to control risks associated with the use of plant in the workplace.

10.2 Nature and extent of the problem

10.2.1 Description of problem

Every year plant causes death and injury in Victorian workplaces. Plant-related injuries and fatalities can arise in the workplace because:

- Plant is poorly designed or manufactured and does not have adequate safety features
- The risks of operating the plant are underestimated
- There is inadequate information, training or supervision to operate the plant safely.

In addition, employers may be subject to perverse incentives where pressures to reduce costs are a disincentive to implement costly but more effective measures to control risks associated with plant.

In relation to the design, manufacture and supply of plant, further perverse incentives exist for some designers and manufacturers to prioritise profitability, or additional sales, over the long-term safety guarantee of their equipment. It is important to recognise however, that more responsible manufacturers may use superior safety performance as a marketing feature.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of plant.

The Plant Regulations supplement the general duties under the OHS Act by:

- Prescribing mandatory risk control measures or prohibitions The OHS Regulations mandate the use of roll over protection structures on tractors at r. 3.5.18 and r. 3.5.36. Other mandatory risk control measures for specific plant are at r. 3.5.35 (warning devices for mobile plant), r. 3.5.37 and r. 3.5.38 (industrial lift trucks), r. 3.5.39 (electrical plant), r. 3.5.40 (plant used to lift loads), r. 3.5.41 (lifts) and r. 3.5.43 (scaffolds)
- Prescribing mandatory performance standards Regulation 3.5.11 requires a designer to record any published technical standards used to design the plant. If no published technical standard is used, the designer must record the engineering principles used
- **Prescribing mandatory processes to be followed** Hierarchy of control duties exist at r. 3.5.12 and r. 3.5.24
- Providing permissions Plant design registration duties exist at r. 3.5.47 and r. 3.5.48
- Placing obligations on employers to keep records Provision of information duties under the OHS Regulations are at r. 3.5.8 (designer to manufacturer), r. 3.5.13 (manufacturer to supplier), r. 3.5.17 (supplier to user) and r. 3.5.21 (agent to user). Record keeping duties exist at r. 3.5.10 (design registration info), r. 3.5.11 (record of standards), r. 3.5.14 (manufacturer), r. 3.5.20 (supplier), r. 3.5.31 (employer maintenance records)
- Making the OHS Act work The OHS Regulations prescribe the detail regarding how to comply with the OHS Act duties at s.27 (designers of plant), s.29 (manufacturers of plant), s.30 (suppliers of plant) and s.31 (installers of plant).

The Plant Regulations reduce the risks of poorly designed or manufactured plant being used in workplaces through several mechanisms, reducing the risk of injuries and fatalities from the use of such plant. These include by prescribing risk control measures for particular items of plant, such as rollover protection on tractors and by prescribing mandatory processes for manufacturers to follow to control risk.

The Plant Regulations also reduce underestimation of risk by requiring employers to eliminate any risk associated with plant so far as reasonably practicable. If it is not

reasonably practicable to eliminate the risk the employer is to substitute, plant with a lower level of risk, use engineering controls to reduce the risk or isolate the plant from people. If these measures are not reasonably practicable, the employer may control the risk by the use of administrative controls or personal protective equipment. Employers are also required to provide information, instruction and training on the safe operation of plant. The High Risk Work licence regime, discussed in chapter 12, introduces competency requirements for the operation of high risk plant.

Prescribing specific measures in the OHS Regulations assists employers to meet their obligations under the OHS Act. The use of specific obligations enables an employer and other duty holders to establish compliance and WorkSafe to take efficient enforcement action where there is non- compliance.

10.2.2 Incidence and trends

Plant is a major cause of workplace death and injury in Victoria. Between 1 July 2007 and 30 June 2015 there were 22,446 plant-related compensation claims submitted (approximately ten per cent of all standardised claims in this period).⁹⁸ Chart 10.1 shows the number and incidence of standardised claims for plant-related accidents on an annual basis. As indicated, the number of claims has decreased over recent years as has the incidence rate.

Over the same period, there were 81 fatalities from plant-related accidents. Of the plantrelated fatalities, tractors accounted for about 25 per cent, with trucks, forklifts, and trailers accounting for 25 per cent. In considering the mechanism of injury, 28 per cent of the plantrelated fatalities were caused by being hit by a moving object, with rollover of plant the second most common mechanism (22 per cent), being trapped by moving machinery or equipment (16 per cent) the third most common, closely followed by being trapped between stationary and moving objects (14 per cent).

⁹⁸ WorkSafe data.

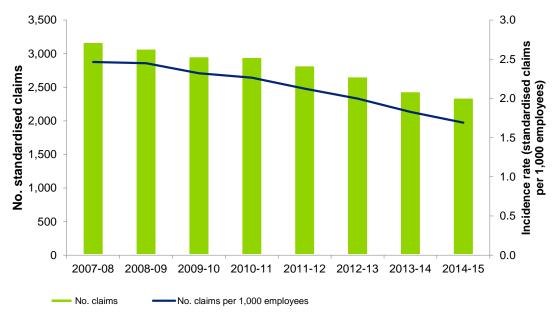


Chart 10.1: Plant-related standard claims, 2007-08 to 2014-15

Source: WorkSafe data.

Based on an analysis of industry subdivisions possibly affected by plant hazards, there were approximately 1,389,223 people employed in these industries in Victoria in 2014-15.⁹⁹ This is an increase from 2007-08 when there were approximately 1,287,895 people employed in these industries in Victoria. Broadly speaking, these subdivisions fell within the following industry divisions: agriculture, forestry and fishing, mining, manufacturing, electricity, gas, water and waste services, construction, wholesale trade, retail trade, transport, postal and warehousing, rental hiring and real estate services, professional, scientific and technical services, administrative and support services, and other services.

10.3 Objectives of regulation

The primary purpose of the proposed Plant Regulations is to prevent plant related accidents occurring in the workplace by prescribing specific risk control measures and providing detail for designers, manufacturers, suppliers and installers of plant on how to comply with the OHS Act.

10.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related

⁹⁹ ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015

injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for plant are discussed in this section. These options were tested by WorkSafe and the Plant and High Risk Work (HRW) SRG and assessed against the aims of the review process outlined in Section 1.3. The Plant and HRW SRG consisted of employee and employer representatives with expertise in this topic area.

10.4.1 Policy proposals under Option 2- select improvement changes

10.4.1.1 Improve and clarify requirements applying to emergency stop devices and operator controls

At present, there is some confusion over the difference between operational stop devices and emergency stop devices. This confusion poses a potential risk where plant would exist without emergency stop devices or where operational controls are more complicated than they need to be.

The current requirements in r. 3.5.5 in respect of operator controls adequately cover operational stop controls. It is proposed that reference to operational stop controls in r. 3.5.6 is removed and that r. 3.5.5 apply. This will be made clear by inserting a definition of "operator controls" and providing that the term includes an operational stop control. Regulation 3.5.5 would be relied on for design requirements for all operator controls (but not emergency stop devices). It is proposed to make r. 3.5.6 regulation apply solely to emergency stop devices and make it clear that:

- Emergency stop devices are not required to be of the "stop and lock-off" type
- Once an emergency stop device has been used, the plant cannot be restarted until that emergency stop device is manually reset and the start function is manually activated.

These changes represent a clarification and a codification of current industry practice.

10.4.1.2 Reduce record keeping requirements

It is proposed to reduce record keeping duties on designers and manufacturers by decreasing the time required to keep records from ten years to seven years under r. 3.5.10(2) r. 3.5.11(3) and r. 3.5.14(2). The aim of this proposal is to reduce compliance costs to designers and manufacturers of plant without reducing safety outcomes.

It is also proposed to remove Regulations 3.5.10(1)(b), (c) and (d) which require designers of plant to keep records of information provided to a manufacturer including records of the information provided under s. 27(1)(c) of the OHS Act, r. 3.5.8 and, if applicable r. 3.5.9. These records are essentially a means of demonstrating compliance and have no direct safety benefit. It is likely a designer will keep this information as a matter of good practice. In any event, Part 3.5 requires the manufacturer to keep copies of information provided by the designer (r. 3.5.14). Essentially the designer and the manufacturer will both be retaining the same records.

This proposal reduces duplication and regulatory burden without reducing safety standards.

10.4.1.3 Re-focus suppliers on their general duties under the OHS Act

It is proposed to remove duties under the OHS Regulations for suppliers of plant (r. 3.5.16) that requires hazard identification and risk control measures to have been carried out in relation to the design and manufacture of the plant before the plant is supplied and rely on general duties under the OHS Act (s. 30). This will be supported by guidance in the Plant Compliance Code and/or other guidance material. The aim of this proposal is to remove unnecessary prescription and duplication.

10.4.1.4 Streamline information provision process

The OHS Regulations place duties on manufacturers (r.3.5.13) and suppliers (r.3.5.17) to obtain and provide prescribed information. However, there is a level of duplication in requiring a duty holder to both obtain and provide information as it is not possible to do one without the other. Accordingly, it is proposed to remove wording which states 'duty to obtain' and leave wording which says 'duty to provide'. The aim of this proposal is to streamline the OHS Regulations while keeping the focus on the provision of information.

10.4.1.5 Exclude the foundations or supporting structure and crane ties of tower cranes from design registration

Currently design registration applies to the supporting structure and foundations of a tower crane, as well as the tower crane itself. This means that a site-specific design registration application should be completed in relation to the crane base and, if used, the crane ties, each time the tower crane is relocated and erected on a new base. It is proposed to exclude the foundations or supporting structure and the crane ties of tower cranes from design registration and instead require an employer to ensure that a tower crane is only erected on a supporting structure or foundation that has been designed:

- By an engineer with relevant knowledge and experience
- For the specific ground conditions at the location
- Taking into account the configurations and forces that were provided for the tower crane when it was design registered.

This is consistent with good industry practice. Finally, it is proposed to make design information concerning the supporting structure or foundation (and crane ties if used) available for inspection by WorkSafe.

This proposal removes unnecessary prescription without reducing safety outcomes.

10.4.1.6 Control of risks to people travelling in lifts

The duty imposed on employers under the OHS Regulations (r. 3.5.41(3)) to control for risks to people travelling in lifts unnecessarily duplicates the general duties imposed on employers under sections 21 and 23 of the OHS Act. Accordingly, it is proposed to remove r. 3.5.41(3) and rely on the general duties, supported by guidance in the proposed Plant Compliance Code and/or other guidance material explaining how the duties in the OHS Act apply. The aim of this proposal is to streamline the OHS Regulations while maintaining safety.

10.4.1.7 Remove some types of lifts and amusement structures from the plant design registration requirement

It is proposed to exclude the following types of lifts and amusements structures from the design registration requirement:

- Lifts with lift cars that are designed for the transportation of goods alone and which do not have any operational controls within the car; and
- Jet packs, hover boards, rides or devices primarily designed as a form of motor sports and hovercrafts.

While design registration requirements would not apply to those lifts and amusement structures, Part 3.5 would still apply, as would the general duties of the OHS Act. The aim of this proposal is to reduce compliance costs to designers and manufacturers of plant without reducing safety outcomes.

10.4.2 Other changes considered

10.4.2.1 Plant design registration and verification

Currently in Victoria, the designs for certain plant listed in a Schedule to the OHS Regulations must be registered with WorkSafe. Plant covered includes certain pressure equipment, cranes, hoists and amusement structures. Prior to registering a design with WorkSafe, the design must also be verified through a third party verifier.

Through the Plant and HRW SRG process run by WorkSafe, the requirements for registration and verification of plant design have been identified as an area for potential change to reduce regulatory burden. As part of the SRG process, three options were put forward:

- Option A Remove the requirement for registration of the plant design with WorkSafe and remove the requirement for verification of the design, and rely on the comprehensive legislative and regulatory framework applying to plant designs. This option would recognise that responsibility for the safe design rests with the designer and removes any risk of WorkSafe (or verifier) being perceived as having approved the design as being safe
- Option B Remove requirement for verification of designs but maintain a requirement for registration of designs with WorkSafe
- Option C Retain design registration in its current form (i.e. retain requirement for design registration with a design verification requirement).

Based on feedback gathered by WorkSafe, it was proposed to proceed with Option C – retain design registration in its current form – as reflected in Option 2 of this RIS.

10.4.2.2 Concept of 'control' of mobile plant (r. 3.5.34)

Consideration was given to introducing a requirement for plant to be under control of an operator, while providing a definition of what 'control' means. It was considered that this may serve Victoria well in the future where more and more vehicles will be driverless (e.g. tractors that operate when the driver is not in the vehicle). However, it was proposed not

to proceed with this change as after further consideration, the OHS Regulations were deemed sufficient to cover both situations.

10.4.2.3 Powered mobile plant (r. 3.5.34 – r. 3.5.38)

Consideration was given to changing the powered mobile plant provisions in the OHS Regulations. A number of factors have changed since they were drafted, including for example, new technology in the form of driverless tractors and operator protection devices for quad bikes and new state of knowledge regarding seatbelts on industrial lift trucks. However, it was proposed not to proceed with this change as technological advances provide a range of risk control measure options but no single solution and it was therefore not appropriate to mandate one risk control measure over another.

10.4.2.4 Electrical plant and electrical hazards (r. 3.5.39 and model WHS Regulations Part 4.7)

Consideration was given to extending duties in relation to electrical safety in workplaces in line with the model WHS Regulations. The model WHS Regulations have a whole Part dedicated to 'General Electrical Safety in Workplaces and Energised Electrical Work' (Part 4.7). However, there is no comparative Part in the OHS Regulations except for sub-regulation 3.5.39 which specifically relates to electrical plant and plant exposed to electrical hazards. However, it was proposed not to proceed with this change because electrical safety is covered by legislation administered by Electrical Safety Victoria.

10.4.2.5 Guarding (r. 3.5.4(2) and r. 3.5.25(2))

Consideration was given as to whether the guarding hierarchy remains appropriate; in particular whether it is still appropriate to have presence sensing systems in the bottom tier of the hierarchy below a physical barrier that can only be removed using tools. Advances in technology have enabled sophisticated presence sensing systems and electrical interlocking systems. However research has found that the effectiveness of these measures depends on the type of machine and in some cases, physical barriers are more effective than presence sensing systems. Concerns have also been raised about people being exposed to hazards if a presence sensing system fails and there is no physical barrier and the potential for 'workarounds' (bypassing) with some presence sensing systems. For these reasons it was determined to not change the order of the guarding hierarchy at this time.

10.4.2.6 Information, instruction and training (r. 3.5.45)

Consideration was given to removing r. 3.5.45(3) which specifies what training, information and instruction employers need to provide to employees in relation to plant. It was suggested to instead rely on Section 21(2)(e) of the OHS Act, supported by guidance in the Plant Compliance Code and/or other guidance material. However, it was proposed not to proceed with this change as the regulation specifies what needs to be covered when providing instruction and information and removing it may lower safety standards.

10.4.2.7 Application of Part (r. 3.5.1)

Consideration was given to whether Part 3.5 of the OHS Regulations should be broadened to apply to manually powered and hand-held plant currently excluded by r. 3.5.1(3).

However, it was determined that applying Part 3.5 to this type of plant was not proportionate to risk so no change was made.

10.5 Assessment of options

10.5.1 Option 1 – remake existing regulations

Under Option 1, the existing 'Part 3.5 – Plant' would be re-made in its current form. This would effectively mean the continuation of the existing requirements for another ten years.

10.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with plant-related obligations in the OHS Act and Regulations is projected to be \$2.7 billion per year in 2017. Of this total cost, approximately \$518 million is attributable to the OHS Regulations, representing 17.0 per cent of the total costs of the OHS Regulations. Based on the results of the interviews and survey, the majority of these costs accrue to the construction (37%); professional, scientific and technical services (19%); agriculture, forestry and fishing (14%); and electricity, gas, water and waste services (12%) sectors.¹⁰⁰

Of those that reported OHS Act and Regulation compliance costs associated with the operation of plant (excluding those under the High Risk Work Regulations), the average cost was approximately \$175,000 per business per year with estimates ranging between \$64 and \$8.0 million.¹⁰¹ The drivers of this cost were risk control (98%) and other requirements (2%). When broken down by business size, the average cost was approximately \$19,000 for small businesses (between \$67 and \$134,125), \$75,000 for medium businesses (between \$64 and \$326,586) and \$975,000 for large businesses (between \$1,500 and \$8.0 million).¹⁰²

Of those that reported OHS Act and Regulation compliance costs associated with the design of plant, the average cost was approximately \$20,000 per business per year with estimates ranging between \$6,174 and \$38,480.¹⁰³ The drivers of this cost were design verification (48%) design registration (40%) and other requirements (12%). When broken down by business size, the average cost was approximately \$18,000 for small businesses (between \$6,860 and \$28,500) and \$22,000 for medium businesses (\$6,174 and \$38,480).¹⁰⁴ No large businesses reported costs relating to the regulation of plant design.

¹⁰⁰ Given the small sample size relative to the overall number of businesses across the Victorian economy, these estimates of the split in total costs by industry are illustrative only.

¹⁰¹ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all.

¹⁰² These estimates are based on a sample of businesses so results from the comparison across different businesses sizes should be interpreted with caution.

¹⁰³ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all.

¹⁰⁴ These estimates are based on a sample of businesses so results from the comparison across different businesses sizes should be interpreted with caution.

10.5.1.2 Benefits

The primary benefit associated with the Plant Regulations is the reduction in work-related injuries and fatalities resulting from Plant-related accidents. Based on the total cost to society associated with plant-related compensation claims, it is possible to estimate the number of cases that would need to be prevented in order for the total quantified benefits of prevention to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that 898 cases of injury and illness and four fatalities from plant-related accidents would need to be prevented per year in order for the benefits of the Plant Regulations to equal the compliance costs to Victorian businesses, as shown in Table 10.1. This represents 38 per cent of the total number of plant claims and fatalities in 2014-15. Put another way it would require the prevention of six plant-related claims for every 10,000 employees at risk of a plant related injury or fatality.

WorkSafe considers it feasible and reasonable that the regulations would prevent the number of claims required for the benefits to be greater than the compliance costs. The Plant regulations reduce claims from plant related injuries and fatalities by reducing the likelihood of poorly designed or manufactured plant being used in workplaces and by requiring employers to eliminate or reduce the risk associated with the use of plant so far as reasonably practicable. Employers are also required to provide information, instruction and training which will increase employees' awareness of the risks and knowledge about how to safely operate the plant, reducing the likelihood of injury.

Table 10.1: Break-even analysis – plant

Total annual compliance cost to Victorian businesses in 2017 ¹	\$517,717,999
Average fully developed cost of claims ²	\$69,327
Prevented cost to employees and society per case of injury/illness ³	\$556,147
Prevented cost to employees and society per fatality ⁴	\$4,264,505
Break-even number of cases of injury/illness per year ⁵	898
Break-even number of fatalities per year ⁶	4
% total claims and fatalities in 2014-15 ⁷	38%
Break-even number of cases as a % of employees at risk ⁸	0.06%

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²WorkSafe data (see Table 3.2). ³Calculated by adding the average fully developed cost of claims (direct cost) to an estimate of the average indirect cost of claims based on Safe Work Australia estimates which suggests that indirect costs are 7.02 times direct costs (Safe Work Australia, August 2015, *The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community*, Canberra). ⁴Based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars (Department of Treasury and Finance, (2013), Economic Evaluation for Business Cases, Melbourne). This estimate has been inflated to 2015 dollars. ⁵96 per cent of the total compliance cost to Victorian businesses divided by the prevented cost to employees and society per case of injury or illness. ⁶Four per cent of the total compliance cost to Victorian businesses divided by the prevented cost to employees and society per fatality. ⁷Based on WorkSafe data (see Table 3.2). ⁸Calculated as a ratio of the break-even number of cases of injury/illness and fatalities per year to the estimated number of employees at risk of this hazard (see Table 3.2).

10.5.2 Option 2 – select improvement changes

A number of changes are proposed under Option 2. Based on a review of the proposed changes, it was considered that some of these proposals would not result in any substantive quantifiable costs or benefits to employers. From a qualitative perspective, the

changes will remove unnecessary prescription and duplication, streamline regulations while maintaining safety, provide greater certainty about the regulatory requirements, ensure consistency and predictability, and reduce compliance costs without reducing safety outcomes. This applies to the following proposed changes:

- Re-focus suppliers on their general duties under the OHS Act
- Streamline information provision process
- Clarify the control of risks to people travelling in lifts
- Improve and clarify requirements applying to emergency stop devices and operator controls

In relation to the other proposed changes, it was considered that these might result in costs or cost savings to business. These other requirements are listed as follows and discussed below:

- Reduce record keeping requirements
- Remove some types of lifts and amusement structures from the plant design registration requirement
- Exclude the foundations or supporting structure and crane ties of tower cranes from design registration.

10.5.2.1 Reduce record keeping requirements

Of the four plant designers interviewed in the one-to-one interviews, all four said that neither reducing the time to keep records from ten years to seven years nor removing the requirement to keep records of information provided to a manufacturer would result in cost savings to their business. Of the three plant manufacturers interviewed in the one-to-one interviews, all three said that reducing the time to keep records from ten years to seven years would not result in cost savings to their business. One business noted that they would continue these practices as a precaution anyway.

10.5.2.2 Remove some types of lifts and amusement structures from the plant design registration requirement

Through the one-to-one interviews, only one business was identified that designs lifts and amusement structures. This business stated that this proposal would not result in any cost savings and that it would have an adverse impact on safety. Among the plant verifiers interviewed, plant registration was regarded as important because it forces people to verify their designs and this verification ensures designs are safe. In WorkSafe's view the removal of material lifts from plant design registration will improve rather than reduce safety as these lifts will not have operational controls in the car reducing the likelihood of a person inappropriately riding in a materials only lift. WorkSafe also considers the removal of amusement structures from the design registration requirements is a clarification and will not reduce safety standards as none of the amusement structures identified as being excluded from design registration currently require design registration.

10.5.2.3 Exclude the foundations or supporting structure and crane ties of tower cranes from design registration

This proposal involves the exclusion of the foundations or supporting structure and crane ties of tower cranes from design registration. Through the one-to-one interviews, no

businesses were identified that submit designs to WorkSafe for these purposes. As such, the avoided costs of no longer needing to submit designs to WorkSafe in these cases are not quantified in this RIS.

This proposal also involves the inclusion of additional duties on crane operators to ensure the safety of tower crane foundations and crane ties if used. Through the one-to-one interviews, only one business was identified that operates tower cranes. This business said that this proposal would not increase costs as it would be bringing the OHS Regulations into line with industry practice.

10.5.2.4 Summary

The above analysis suggest that the proposed changes to the Plant Regulations under Option 2 would not result in any cost impacts on Victorian businesses, with the exception of a small number of businesses who may experience savings from no longer needing to submit designs to WorkSafe in relation to the foundations or supporting structure and crane ties of tower cranes. No businesses could be identified through the one-to-one interviews that might face such a cost saving. Accordingly, such savings are not quantified in this RIS. It is also possible that the proposal to remove some types of lifts and amusement structures from the plant design registration requirement may adversely impact safety, as alluded to by one business interviewed. However, this view is not shared by WorkSafe.

The above analysis also suggest that the proposed changes may result in some benefits by streamlining the regulations including the removal of unnecessary prescription and duplication, the streamlining of regulations while maintaining safety, the provision of greater certainty about regulatory requirements, increased consistency and predictability, and reduced compliance costs without reducing safety outcomes.

10.5.3 Other changes considered

10.5.3.1 Plant design registration (Option A)

This option proposes to remove the requirement for registration of the plant design with WorkSafe and remove the requirement for verification of the design, and rely on the comprehensive legislative and regulatory framework applying to plant designs.

In the one-to-one interviews, five businesses reported facing costs associated with design registration requirements, including a description of the applicable controls, safety devices, supporting system and communication systems for the plant. Of the estimates provided, the average cost of design registration was \$3,579, with estimates ranging between \$871 and \$7215.

In the one-to-one interviews, five businesses reported facing costs associated with design verification requirements. Of the estimates provided, the average cost of design verification was \$3,381, with estimates ranging between \$870 and \$50,000.

In 2014-15 there were 1,065 plant designs registered with WorkSafe. Therefore, it can be estimated that this proposal would result in total savings of approximately \$7.4 million relative to Option 1, noting that this estimate is indicative only.

Four out of the five businesses said that removing the requirements to verify and register plant designs would reduce safe design across the industry, leading to increased injuries. The fifth business was unsure. Two businesses anticipated a moderate increase in injuries and two businesses anticipated a significant increase.

One detailed comment was received in relation to Options A, as follows:

Registration is necessary as it forces verification to occur – it forces a proper check. The impact of Option A on safe design would depend on how comprehensive the legislative and regulatory framework is. It would require a lot of education as the majority of people in the industry don't read the legislation and regulations.

10.5.3.2 Plant design registration (Option B)

This option proposes to remove the requirement for verification of designs but maintain a requirement for registration of designs with WorkSafe.

As noted above, in the one-to-one interviews, five businesses reported facing costs associated with design verification requirements at an average cost of \$3,381. Further, in 2014-15 there were 1,065 plant designs registered with WorkSafe. Therefore, it can be estimated that this proposal would result in total savings of approximately \$3.6 million relative to Option 1, noting that this estimate is indicative only.

Four out of five businesses said removing the requirement to verify plant designs would result in a decrease in injuries. Three businesses anticipated a moderate increase in injuries with the fourth anticipating a significant increase. The fifth business said that it would not reduce safe design.

One detailed comment was received in relation to Option B. This business was of the view that there is no point in having design registration without design verification (Option B) as verification is what forces the proper checks – registration merely forces people to go through the verification process.

10.5.3.3 Plant design registration (Option C)

This option proposes to retain design registration in its current form (i.e. retain requirement for design registration with a design verification requirement). Based on stakeholder feedback, it was proposed to proceed with this option, as reflected in Option 2 (select improvement changes) of this RIS.

10.6 Impact on small business and competition assessment

In light of the above finding that the overall cost impacts of the proposed changes to the Plant Regulations under Option 2 (select improvement changes) would be minor, it is not considered that there would be any impact on small business and competition as a result of these proposals.

11 Equipment (public safety) Regulations

11.1 Background

The scope of the OHS Regulations is limited to workplaces and does not cover the use of plant in a non-workplace setting such as tractors in hobby farms, and scaffolding on residential premises (where the scaffolding is not used by an employer, employee or self-employed person) which may pose a risk to public safety. Although there are limited circumstances where plant is used by someone who is not in a workplace and where upstream duty holders will design, manufacture or supply plant solely for use in a non-workplace, the risks associated with the use of this plant are the same whether they are used in a workplace or non-workplace. For example, hazards associated with the use of plant such as being struck or crushed by plant and entanglement in unguarded machinery, are present regardless of where the plant is used. It is therefore appropriate for the same safety protections to apply to workplace and non-workplace settings.

The EPS Regulations provide for the protection of public safety in relation to plant (referred to in EPS as 'prescribed equipment'). Prescribed equipment under the EPS Regulations is the same types of plant prescribed in 'Part 3.5 - Plant' of the OHS Regulations.

The EPS Regulations are made under the EPS Act. The EPS Act imposes duties on persons who design, manufacture, import, supply, own or use prescribed equipment and contains a compliance and enforcement regime to monitor and regulate the use of prescribed equipment.

The EPS Regulations have four main functions, which are to:

- Declare certain equipment to be prescribed equipment which will be covered by EPS duties
- Place duties on designers, manufacturers, importers and suppliers of that equipment in order to provide for the health and safety of people engaging with the equipment
- Specify requirements relating to notification of prescribed equipment
- Specify incident notification requirements.

The burden on upstream duty holders under the EPS Regulations is no greater than the burden under the OHS Regulations and as such WorkSafe administers the two schemes in the same way.

The EPS Regulations mirror the OHS Plant Regulations so that users of prescribed plant and equipment are afforded the same health and safety protections in relation to design, manufacture and supply. Therefore, the proposals in the Plant Regulations relating to design, manufacture and supply also apply to the EPS Regulations.

11.2 Nature and extent of the problem

11.2.1 Description of problem

Injuries and fatalities from the use of prescribed equipment can arise in relation to the use of prescribed equipment as members of the public and duty holders may find it hard to assess the risks of operating prescribed equipment accurately or may have difficulty obtaining information needed to assess such risks. In relation to the design, manufacture and supply of prescribed equipment, further perverse incentives exist for some designers and manufacturers to prioritise profitability, or additional sales, over the long-term safety guarantee of their equipment. It is important to recognise, however, that more responsible manufacturers may use superior safety performance as a marketing feature.

The EPS Act imposes duties on persons who design, manufacture, import, and supply, own or use prescribed equipment. The EPS Regulations supplement the duties under the EPS Act by:

- Prescribing mandatory risk control measures or prohibitions Mandatory risk control measures for specific equipment are at r. 306 (design of operator stop controls) of the EPS Regulations
- Prescribing mandatory performance standards Mandatory performance standards are at r. 304 (standards for guarding design), 305 (standards for operator controls), r. 307 (warning devices) r. 311 (designer record engineering principles etc.) of the EPS Regulations
- **Prescribing mandatory processes to be followed** Hierarchy of control duties exist at r. 302 and r. 401 of the EPS Regulations
- Providing permissions Equipment notification duties exist at r. 801 of the EPS Regulations
- Placing obligations on employers to keep records Provision of information duties under the EPS Regulations are at r. 308 (designer to manufacturer), r. 403 (manufacturer), r. 502 (importer) and r. 603 (supplier), r. 606 (agent). Record keeping duties exist at r. 310 (design notification info), r. 311 (record of standards), r. 404 (manufacturer), r. 605 (supplier who leases)
- Making the OHS Act work The EPS Regulations declare equipment to be prescribed equipment thereby applying EPS Act requirements.

Prescribing specific measures in the EPS Regulations assists duty holders to meet their obligations under the EPS Act in much the same way that the Plant Regulations assist duty holders to meet their obligations under the OHS Act as discussed in Chapter 10. The use of specific obligations enables duty holders to establish compliance and WorkSafe to take efficient enforcement action where there is non- compliance.

11.2.2 Incidence and trends

Given that the process for incident notification is the same under the EPS Regulations and the OHS Regulations, WorkSafe accepts an incident notification as having met the requirements under the OHS Regulations and the EPS Regulations. Therefore incident

notifications made solely under the EPS Regulations are not separately identified by WorkSafe.

While the EPS Regulations may rarely apply as plant use would most commonly occur in a workplace, they ensure that similar standards of health and safety protection apply in relation to prescribed equipment that is not intended for use in a workplace and that there is some level of oversight by WorkSafe.

11.3 Objectives of regulation

The primary purpose of the proposed EPS Regulations is to provide for the health and safety of people in relation to prescribed equipment. The EPS Regulations provide greater detail on how to comply with the duties in the EPS Act to prevent people being injured when using prescribed equipment.

11.4 Identification and consideration of feasible options

11.4.1 Policy proposals under Option 2- select improvement changes

11.4.1.1 Notification of domestic lifts

The EPS Regulations place a notification obligation on suppliers in relation to the installation of lifts in domestic premises (r.607). Specifically, as soon as reasonably possible after a lift has been installed in domestic premises, the supplier of the lift must notify WorkSafe of the installation. The notification of lifts installed in domestic premises is analogous to the former requirement under the OHS Regulations for specified items of plant, including lifts, to be registered by WorkSafe. The plant item registration scheme was discontinued on 1 July 2014 when the OHS Amendment Regulations 2014 came into effect. Accordingly, it is proposed to remove the notification of lift requirement. The aim of this proposal is to provide consistency with the OHS Regulations and reduce regulatory burden without reducing safety standards.

11.4.1.2 Supplier duty in relation to roll-over protection on tractors

The EPS Regulations do not have an equivalent provision to r. 3.5.18 of the OHS Regulations which provides that a supplier of plant must not supply a tractor manufactured in, or imported into, Victoria on or after 1 July 1981 unless it is fitted with roll-over protection. It is proposed to include a supplier duty in relation to roll-over protection on tractors that is equivalent to r. 3.5.18. The EPS Regulations and the OHS Regulations are already largely aligned in respect of duties placed on upstream duty holders and the proposal will provide further consistency and provide the same safety standards for tractors used in non-workplaces

11.4.1.3 Notice of dangerous occurrence

Incidents that must be notified to WorkSafe under the EPS Regulations include incidents involving specified equipment which expose a person in the immediate vicinity of the

equipment to an immediate risk to their health or safety. These are incidents involving the collapse, overturning, failure, malfunction or damage to equipment specified in r. 903. The incident notification requirement under r. 903 essentially replicates an incident notification requirement under r. 3.5.45a of the OHS Regulations. However, unlike the OHS Regulations, the EPS Regulations do not specify self-erecting tower cranes as equipment covered by the notification requirement.

For consistency with the OHS Regulations, it is proposed to include self-erecting tower cranes in the list of equipment covered by the notification requirement set out in r. 903 of the EPS Regulations.

11.4.1.4 Preservation of sites

Duties to preserve (i.e. not disturb) the site of an incident apply to employers and selfemployed persons under the OHS Act and to persons in charge of prescribed equipment under the EPS Regulations (r.905). Sites must be preserved until a WorkSafe inspector arrives or directs otherwise when the incident is notified.

Unlike the OHS Act, the obligation to preserve a site under the EPS Regulations is limited, without any clear rationale, to an incident that results in the death of any person. The OHS Act however requires the site to be preserved if an incident has occurred at the workplace – this includes incidents that result in death or serious injury (e.g. if the person requires immediate medical treatment for amputation of any part of their body).

Changes are proposed to more closely align the site preservation requirements under the EPS Regulations with those under the OHS Act by requiring notification in respect of incidents that result in serious injury.

11.4.1.5 Manufacturer's duty to provide information

The OHS Regulations place a duty on designers to provide manufacturers with prescribed information. A manufacturer is required to pass that information on to a person to whom the plant is supplied. R. 403 of the EPS Regulations also places this duty on a manufacturer but unlike the OHS Regulations it does not explicitly require the manufacturer to pass on any revised information that the designer provides as a result of a hazard being identified during manufacture. It is proposed to amend r. 403 to explicitly require a manufacturer to pass on any revised information that the designer provides to the manufacturer as a result of the manufacturer identifying a hazard during the manufacturing process. The aim of this change is to provide greater clarity and ensure the Regulations are consistent and predictable.

11.4.1.6 Administrative provisions for design notification

It is proposed to insert a provision to expressly recognise a plant design registration under the OHS Regulations as equivalent to a prescribed equipment design notification under the EPS Regulations. WorkSafe administers the two schemes in the same way and an application for design registration is also treated as a prescribed equipment design notification.

It is also proposed to further align the administrative provisions where appropriate, with those in the OHS Regulations, such as providing that a person making notification must include any proof of identity required by WorkSafe.

11.5 Assessment of options

11.5.1 Option 1 – remake existing regulations

11.5.1.1 Costs

As part of the one-to-one interviews and web-based survey, it was not possible to identify any businesses that design and/or manufacture plant solely for the purposes of use in nonworkplaces. Based on feedback received during the interviews and survey, the number of such businesses in Victoria is considered to be minor. Accordingly, the total costs to the Victorian economy of the plant design requirements in the EPS Regulations, over and above the equivalent requirements in the OHS Regulations, are considered to be negligible.

Costs to duty holders associated with the operation of prescribed equipment were not explored as part of the one-to-one interviews and web-based survey as the focus was on consulting employers. Accordingly, the total costs to the Victorian economy of equipment operation requirements in the EPS Regulations, over and above the equivalent requirements in the OHS Regulations, are not quantified in this RIS. However, it is considered that such costs are relatively small. While the number of incidents notified to WorkSafe that fall within the scope of the EPS Act and Regulations are not separately identified they are expected to be small as non-workplace use of plant is limited. The EPS Regulations ensure that similar standards of health and safety protection apply in relation to prescribed equipment that is not intended for use in a workplace and that there is some level of oversight by WorkSafe.

11.5.1.2 Benefits

While there is a strong case for regulating prescribed equipment under the EPS Regulations to ensure that protections to employees in relation to the operation of plant are extended to members of the general public who use or come into contact with high risk plant, the benefits of the EPS Regulations are considered to be relatively minor.

11.5.2 Option 2 – select improvement changes

A number of changes are proposed to the EPS Regulations under Option 2. Based on a review of the proposed changes, it was considered that some of these proposals would not result in any substantive quantifiable costs or benefits to employers. From a qualitative perspective, the changes will remove unnecessary prescription and duplication, streamline regulations while maintaining safety, provide greater certainty about the regulatory requirements, ensure consistency with the Plant Regulations, and reduce compliance costs without reducing safety outcomes. This applies to the following proposed changes:

- Notification of domestic lifts
- Supplier duty in relation to roll-over protection on tractors
- Notice of dangerous occurrence
- Preservation of sites
- Manufacturer's duty to provide information.
- Administrative provisions for design notification.

11.5.3 Other changes considered

As discussed above in Section 10.4.2, three options were considered for plant design registration. Design notification under the EPS Regulations mirrors design registration under the OHS Regulations and as such, the options discussed are also applicable to the EPS Regulations.

Of the five plant designers interviewed in the one-to-one interviews, none were engaged in the design of plant used solely in non-workplaces. Further, none of them were aware of any businesses in Victoria that specialise purely in the design and manufacture of plant for nonworkplace applications. Accordingly, it is considered that the impact of the equivalent proposed design registration and verification changes to the EPS Regulations would be negligible.

11.6 Impact on small business and competition assessment

In light of the above discussion that the overall cost impacts of the proposed changes to the EPS Regulations under Option 2 would be minor, it is not considered that there would be any impact on small business and competition as a result of these proposals.

12 High risk work

12.1 Background

Certain types of work or activities are classified as 'high risk' if they require the operation of plant that has the risk of causing serious injuries or fatalities to employees or the general public. Use of plant is associated with a significant proportion of workplace accidents and consequential compensation claims. The work specified as 'high risk work' in the OHS Regulations includes scaffolding, dogging, rigging, and the operation of certain cranes, hoists, forklift trucks and boilers.

The safe use of certain types of plant relies on operator competency to use the plant appropriately and manage risks which would otherwise have an increased potential to cause multiple or serious injuries or fatalities or impact on public safety. Disassociation of the risks can lead to complacency around plant and increase the risks associated with its use. As such, the use of some plant requires considerable expertise and training before it can be operated in a safe manner.

The OHS Regulations have a licensing scheme to ensure that persons who perform 'high risk work' have demonstrated the requisite level of competency to do that work. The scheme ensures minimum training of employees before they are able to undertake high risk work and requires appropriate supervision of employees while in training. Some of the licence classes include:

- Forklift truck operation
- Crane and hoist operation (which includes bridge and gantry cranes, vehicle loading cranes and boom type-elevating work platforms)
- Dogging and rigging
- Scaffolding
- Pressure equipment operation (which includes boilers).

12.2 Nature and extent of the problem

12.2.1 Description of problem

The operation of plant in the workplace can cause serious injuries or fatalities to employees and in some cases the general public. There are certain types of plant (such as forklifts, cranes, scaffolding and pressure equipment) that, due to their significance in size, functionality or operational complexity, are inherently higher risk than other types of plant. Safe use of this type of plant requires operators with competency in the operation of the plant, in much the same way that safe use of a motor vehicle requires competent drivers. Injuries and fatalities associated with the use of high risk plant can arise in the workplace as employers may underestimate the risks of operating plant or underestimate the skills (and therefore training and instruction required) to operate the plant safely. Further, employers may be subject to perverse incentives where pressures to reduce costs act as a disincentive to train or supervise employees in the safe use of plant.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of the safe operation of high risk plant.

The High Risk Work Regulations supplement the general duties under the OHS Act by:

- **Prescribing mandatory performance standards** Performance standards are mandated at r. 3.6.5 (direct supervision) and r. 3.6.6 (ensuring supervision)
- Prescribing mandatory processes to be followed Processes to be followed are mandated at r. 3.6.7 (how to obtain an assessment of competency), r. 3.6.8 (method of assessment) and r. 3.6.9 (process for re-assessment)
- Providing permissions The OHS Regulations set out a permissioning scheme for high risk work
- Making the OHS Act work The OHS Regulations prescribe the types of work that require licences under s.40(4) of the OHS Act.

The OHS Act provides for Regulations to stipulate licencing requirements for certain types of work. The OHS Regulations provide the regulatory framework for determining the types of licences required and the appropriate competency standard for operators performing that work. Part 3.6 sets out the requirement for a person to hold a high risk work license (HRW licence) in order to perform high risk work and for employers to ensure that employees are licensed to perform such work. The HRW licensing regime reduces the risk of injuries and fatalities from the operation of high risk plant by requiring operators to have skills and competency necessary for safe operation of the plant as demonstrated by holding a licence or in cases where a person does not hold a licence (for example, while learning) for that person to be directly supervised.

12.2.2 Incidence and trends

Information on the number of compensation claims relating solely to the use of high risk plant is unavailable. Such claims are a subset of injury and illness claims relating to the use of plant generally (see Chapter 10).

As at 30 June 2015, there were 320,881 current licences on issue in Victoria.¹⁰⁵ As a licence may endorse the licence holder to perform more than one class of high risk work (e.g. endorse the licence holder to operate a forklift truck and a material hoist), the number of classes of high risk work endorsed is higher (501,772).¹⁰⁶

¹⁰⁵ Data provided by WorkSafe, October 2015.

¹⁰⁶ WorkSafe data.

12.3 Objectives of regulation

The primary purpose of the proposed High Risk Work Regulations is to prevent accidents associated with the use of high risk plant in the workplace by prescribing supervision and competency requirements so that operators have the skills to use plant safely.

12.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for high risk work are discussed in this section. These options were tested by WorkSafe and the Plant and HRW SRG and assessed against the aims of the review process outlined in Section 1.3. The Plant and HRW SRG consisted of employee and employer representatives with expertise in this topic area.

12.4.1 Policy proposals under Option 2- select improvement changes

12.4.1.1 Person may work while HRW licence renewal being processed

It is proposed to provide that a licence holder who applies for a licence renewal before the licence expires can continue to perform work until a renewal is granted or until 14 days after a renewal is refused. If a licence holder applies for renewal of their HRW licence and the licence expires before the renewal application is processed, the regulations do not provide for them to perform the HRW to which the licence is related. An applicant for licence renewal is therefore treated inconsistently with an applicant who applies for a HRW licence in the first instance. Regulation 3.6.10(2)(b) allows the latter applicant to perform the relevant HRW until the licence is granted or until 14 days after they are given written notice that the application has been refused. It is proposed to make a similar provision for licence renewal applicants.

12.4.1.2 Authorisation to carry out assessment of competency

Under the current regulations WorkSafe may authorise a person to carry out assessments of competency in relation to high risk work for the purposes of the regulations. There is currently no explicit power to impose terms and conditions on an assessor's authorization. Presently this may be done administratively however the process is less transparent. It is proposed an additional provision be included to explicitly provide that terms and conditions can be imposed on an assessor's authorisation.

Authorised assessors carry out the function of assessing the competency of those who will be ultimately applying for a licence. That competency is critical to a person being able to safely perform the high risk work which is the subject of the licence. Terms and conditions on an authorisation can potentially help to protect the integrity of the High Risk Work licensing scheme by ensuring that those authorised to carry out assessments are accountable and providing assessments that determine a licence holder's competency.

12.4.1.3 Clarify the requirement for a dogging licence

In situations where a crane operator is unable to see the load at all times, there is sometimes confusion over whether a dogman is required. This arises due to an inconsistency between the scope statement for a dogging licence (item 5 of Schedule 3) and the definition of 'dogging' (item 1 of Schedule 3). It is proposed to resolve this inconsistency by aligning the licence scope statement for dogging (item 5) with the definition of 'dogging'. This is a drafting clarification to reflect current practice in the industry and also aligns with the model WHS Regulations.

12.4.1.4 Expand work allowed under the bridge and gantry crane operation licence class and the vehicle loading crane operation licence class

Currently, the Victorian bridge and gantry crane operation licence does not allow the licence holder to carry out the application of load estimation and slinging techniques to move a load with a bridge or gantry crane. Nor does the vehicle loading crane operation license allow the license holder to carry out load estimation and slinging techniques to move a load with a vehicle loading crane. This work must only be undertaken under a dogging licence.

It is proposed to amend the OHS Regulations to broaden the scope of work allowed under the bridge and gantry crane operation licence class and the vehicle loading crane operation licence class to include load estimation and slinging techniques to move loads.¹⁰⁷

This will mean that operators under these licences will no longer need to hold an additional dogging licence in order to undertake slinging techniques and load estimation to move loads with those cranes. It also means that an additional person with a dogging licence may not be needed in circumstances where the licensed person operating the bridge, gantry or vehicle loading crane does not have a dogging licence.

The aim of this proposal is to broaden the scope of work allowed under the bridge and gantry crane operation licence class and the vehicle loading crane operation licence to include load estimation and slinging techniques.

12.4.1.5 Introduce new licence class for reach stackers

Currently, individuals operating a reach stacker are required to hold a non-slewing mobile crane operation licence or the employer is to provide training to the individual as required by the employer's exemption from the high risk work licensing requirement.

¹⁰⁷ Note some bridge cranes and gantry cranes do not require an operator with a bridge and gantry crane operation licence. These are those bridge and gantry cranes that have three or less powered operations and that are controlled from a location remote to a permanent cabin or control station on the crane. Vehicle loading cranes that have a capacity of less than ten metre tonne do not require an operator with a vehicle loading crane licence. Under the proposed changes, operators who do not hold a bridge and gantry operation licence or a vehicle loading crane operation licence would still need to hold a dogging licence to carry out slinging techniques and load estimation to move a load or need an additional person with a dogging licence.

It is proposed to amend the OHS Regulations to introduce a new licence class for reach stackers. This change will mean that:

- People operating reach stackers under a non-slewing mobile crane licence will be able to continue to do so under the proposed change. But those applying for a licence for the first time will be able to apply for the new reach stacker licence, instead of a nonslewing mobile crane licence; or
- Individuals operating a reach stacker under an exemption applying to their employer will be required to obtain a new reach stacker operation licence.

The aim of this proposal is to allow operators to train for and receive a licence for operating reach stackers without having to cover all the competencies required for a non-slewing mobile crane operation licence.

12.4.1.6 Exclude pallet trucks from the scope of the forklift truck operation licence

It is proposed to amend the OHS Regulations to narrow the types of forklift trucks requiring a high risk work licence. Specifically, it is proposed to exclude low lift pallet trucks from the definition of forklift truck.¹⁰⁸ This would mean that individuals operating low lift pallet trucks would no longer need to apply for a high risk work licence. The aim of this proposal is to remove unnecessary regulation and make the regulations more proportionate to risk.

12.4.1.7 Exclude 'low-level' order-picking forklift trucks from the scope of the order-picking forklift truck operation licence

It is proposed to amend the OHS Regulations to narrow the types of order-picking forklift trucks requiring an operator with high risk work licence.¹⁰⁹ The proposal is to exclude the operation of order-picking forklift trucks that lift objects off the ground less than 900mm. Only operators of order-picking forklift trucks with lifting attachments capable of being raised 900mm or more would be required to hold an order-picking forklift trucks that lift less than 900mm would mean that persons operating order-picking forklift trucks that lift less than 900mm would no longer need to apply for a high risk work licence. The aim of this proposal is to remove unnecessary regulation and make the regulations more proportionate to risk.

12.4.1.8 Consolidate and streamline boiler operation licences

It is proposed to amend the OHS Regulations to consolidate and streamline the current three-tier boiler operation licencing scheme of 'basic, intermediate and advanced' to two-tier licencing scheme of 'standard and advanced'. This will align with the national boiler licensing scheme. This means that some holders of an intermediate boiler operation licence

¹⁰⁸ A pallet truck is a non-counterbalanced industrial truck where the operator is intended to control the truck while riding on the truck and where the truck is designed to handle pallets and palletized loads by means of a fork (pair of fork arms) which is adjustable in elevation. Low-lift pallet trucks are those pallet trucks that are unable, by design, to raise their fork arms 900 mm or more above the ground.

¹⁰⁹ An order-picking forklift truck is a type of powered industrial lift where the operator's control arrangement is incorporated with the load carriage or lifting media, and elevate with it. Thus, the operator is raised for order-picking.

may need to apply for an advanced boiler operation licence if they operate boilers with preheaters, re-heaters, superheaters or economisers. It is considered this change will benefit people who would under the current scheme need to obtain either a basic and intermediate licence or an advanced licence (as they would currently need to also hold a basic and an intermediate licence).

The aim of this proposal is to better reflect the risk associated with contemporary boiler design and to make it easier for people to work across state and territory borders.

12.4.1.9 Expand the exception that provides that a high risk work licence is not required in certain cases

It is proposed to expand the exception that provides that a HRW licence is not required to operate a boiler having less than 4.6m2 of heating surface in agricultural and related industries to less than 5m2 of heating surface in all industries. The references to dairying, agriculture, horticulture, viticulture, apiculture or pastoral enterprises in item 2.1 of Schedule 4 would be deleted as there is no reason why the exclusion should be industry-specific.

The aim of this proposal is to remove unnecessary regulation and make the regulations more proportionate to risk without a diminution in safety. This change also aligns with the model WHS Regulations.

12.4.2 Other changes considered

12.4.2.1 Process for re-assessment after receiving notice of unsatisfactory assessment (r. 3.6.9)

Consideration was given to reinstating a previous requirement that there be a 21-day minimum time period prescribed for re-assessment after receiving a notice of unsatisfactory assessment. However, it was proposed not to proceed with this change because it was considered it would introduce unnecessary prescription. This is a competency-based licence system and if an applicant can demonstrate competency in a lesser time period this should be allowed.

12.4.2.2 Potential for streamlining in relation to hoists, encompassments (Schedule 3 – Items 22 and 23)

Consideration was given to streamlining the current requirements for two classes of high risk work licence for hoists by introducing only one licence class – 'hoist (personnel and materials) operation licence'. However, it was proposed not to proceed with this change. It was considered that consolidation in this instance would increase regulatory burden for those individuals needing to only operate a materials platform hoist without an improved safety outcome.

12.4.2.3 Additional matters to be satisfied before a licence can be granted (r. 6.1.10)

Consideration was given to whether the 60-day 'life' imposed on an assessment under r. 6.1.10(1)(f) could be increased to 90 days. However, it was proposed not to proceed with

this change. The current 60-day period is not a problem for the vast majority of applicants and it maintains consistency with time period in model WHS Regulations.

12.4.2.4 Piling

Consideration was given to introducing a new HRW licence class for piling. However, it was proposed not to proceed with this change. It was considered that the new Industry Standard (*Piling work and foundation engineering sites*) published by WorkSafe in February 2014¹¹⁰ provides an appropriate policy approach.

12.5 Assessment of options

12.5.1 Option 1 – remake existing regulations

Under Option 1, the existing 'Part 3.6 - High Risk Work' would be re-made in their current form. This would effectively mean the continuation of the existing requirements for another ten years.

12.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with obligations in the OHS Act and Regulations relating to high risk work is projected to be \$355 million per year in 2017. Of this total cost, approximately \$65 million is attributable to the OHS Regulations, representing 2.1 per cent of the total costs of the OHS Regulations. Based on the results of the interviews and survey, the majority of these costs accrue to the construction (25%); wholesale trade (25%); and other services (16%) sectors.¹¹¹

Of those that reported OHS Act and Regulation compliance costs associated with high risk work requirements, the average cost was approximately \$16,000 per business per year with estimates ranging between \$9 and \$310,684.¹¹² The drivers of this cost were the requirement to be licenced including training (90%), supervising staff that do not have a licence (6%) and other requirements (4%). When broken down by business size, the average cost was approximately \$5,000 for small businesses (between \$9 and \$52,996), \$15,000 for medium businesses (between \$36 and \$225,000) and \$34,000 for large businesses (between \$18 and \$310,684).

12.5.1.2 Benefits

The primary benefit associated with the High Risk Work Regulations is the reduction in work-related injuries and fatalities resulting from accidents involving high risk plant. Based on the total cost to society associated with plant-related compensation claims, it is possible

¹¹⁰ http://www.worksafe.vic.gov.au/info/home?query=Piling+Industry+Standard&collection=worksafeknowledge-centre-web&meta_docAssetID=119724&temp=landing

¹¹¹ Given the small sample size relative to the overall number of businesses across the Victorian economy, these estimates of the split in total costs by industry are illustrative only.

¹¹² Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all.

to estimate the number of cases that would need to be prevented in order for the total quantified benefits of prevention to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that 113 cases of injury and illness and one fatality from accidents involving high risk plant would need to be prevented per year in order for the benefits of the High Risk Work Regulations to equal the compliance costs to Victorian businesses, as shown in Table 12.1. This represents five per cent of the total number of plant claims and fatalities in 2014-15.

Note that other regulatory requirements apply to the use of high risk plant, and plant more generally, and the costs of these other requirements need to be considered when assessing the costs and benefits of the overall scheme to reduce the risk of plant-related accidents in the workplace. Specifically, when considering the costs of both the High Risk Work and Plant Regulations (see Chapter 10), it is estimated that 1,010 cases of injury and illness and five fatalities from accidents involving plant would need to be prevented per year in order for the benefits of these regulations to equal the compliance costs to Victorian businesses. This represents five per cent of the total number of plant claims and fatalities in 2014-15. Put another way it would require the prevention of one claim for every 10,000 employees at risk of plant related injuries and fatalities.

WorkSafe considers it feasible and reasonable that the regulations would prevent the number of claims required for the benefits to be greater than the compliance costs. The HRW licensing regime reduces the likelihood of workplace injuries and fatalities from the operation of high risk plant by requiring operators to have the skills and competency to operate the plant safely.

Total annual compliance cost to Victorian businesses in 2017 ¹	\$65,019,780
Average fully developed cost of claims ²	\$69,327
Prevented cost to employees and society per case of injury/illness ³	\$556,147
Prevented cost to employees and society per fatality ⁴	\$4,264,505
Break-even number of cases of injury/illness per year ⁵	113
Break-even number of fatalities per year ⁶	1
% total claims and fatalities in 2014-15 ⁷	5%
Break-even number of cases as a % of employees at risk ⁸	0.01%

Table 12.1: Break-even analysis – high risk work

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²WorkSafe data (see Table 3.2). ³Calculated by adding the average fully developed cost of claims (direct cost) to an estimate of the average indirect cost of claims based on Safe Work Australia estimates which suggests that indirect costs are 7.02 times direct costs (Safe Work Australia, August 2015, *The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community*, Canberra). ⁴Based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars (Department of Treasury and Finance, (2013), Economic Evaluation for Business Cases, Melbourne). This estimate has been inflated to 2015 dollars. ⁵96 per cent of the total compliance cost to Victorian businesses divided by the prevented cost to employees and society per case of injury or illness. ⁶Four per cent of the total compliance cost to employees and society per fatality. ⁷Based on WorkSafe data (see Table 3.2). ⁸Calculated as a ratio of the break-even number of cases of injury/illness and fatalities per year to the estimated number of employees at risk of this hazard (see Table 3.2).

12.5.2 Option 2 – select improvement changes

A number of changes are proposed to the High Risk Work Regulations under Option 2. Based on a review of the proposed changes, it was considered that some of these proposals would not result in any substantive quantifiable costs or benefits to employers. From a qualitative perspective, the changes will improve consistency with the model WHS Regulations without impacting safety outcomes and address some technical issues in the drafting of the current OHS Regulations. This applies to the following proposed changes:

- Expand the exception that provides that a high risk work licence is not required in certain cases
- Clarify the requirement for a dogging licence.

In relation to the other proposed changes, it was considered that these might result in costs or cost savings to business. These other requirements are listed as follows and discussed below:

- Consolidate and streamline boiler operation licences
- Introduce new licence class for reach stackers
- Broaden the scope of work allowed under the bridge and gantry crane operation licence class and the vehicle loading crane operation licence class
- Exclude pallet trucks from the scope of the forklift truck operation licence
- Exclude 'low-level' order-picking forklift trucks from the scope of the order-picking forklift truck operation licence.

12.5.2.1 Consolidate and streamline boiler operation licences

Under this proposal, the OHS Regulations would be amended to adjust the current threetier boiler operation licencing scheme of 'basic, intermediate and advanced' to align with the two-tier national boiler licencing scheme of 'standard and advanced'. This would mean that most people with a 'basic' or 'intermediate' would be taken to hold a 'standard' licence. However, some holders of an 'intermediate' licence (those that operate boilers with pre-heaters, re heaters, superheaters or economisers) would have to apply for an 'advanced' licence under the new arrangements.

Based on information provided by WorkSafe, there are approximately 2,470 intermediate licence holders who currently do not hold an advanced licence. Of these, WorkSafe estimates that approximately ten per cent (247) of these would have to obtain an advanced licence to operate boilers with pre-heaters, re heaters, superheaters or economisers under the proposed new arrangements. As part of the one-to-one interviews, only one business was able to estimate the cost of boiler operation licencing and associated training. Based on this information, it is estimated that the above 247 licence holders would face a cost of approximately \$1,435 to upgrade to the 'advanced' licence.¹¹³

In addition to this cost, those seeking to obtain a 'standard' licence under the new arrangements would no longer need to obtain a 'basic' licence first. Assuming the overall

¹¹³ As an indicative estimate it is assumed that the costs of boiler licences are met by the business rather than the licence holder.

cost of training would be the same, this means that people applying for a 'standard' licence for the first time would save the cost of the additional licence fee. It is estimated that there are currently 247 new applications for an intermediate licence per year – ten per cent of the total number of intermediate licence holders who currently do not hold an advanced licence. These licence holders would face a saving of \$60 from no longer having to apply for two licences in order to obtain a 'standard' licence.

There will be an additional saving to the intermediate licence holders who currently do not hold an advanced licence (approximately 2,470 licences) and will not be transitioning to an advanced licence under the proposed arrangement (approximately 247). This saving applies to approximately 2,223 licensees. These licensees would now pay one \$60 renewal fee every five years¹¹⁴ (licence renewal period) instead of the \$120 they paid previously to renew two licences (the basic and intermediate licences).

Based on the above, it is estimated that this proposal would result in \$354,445 in costs to licence holders and \$41,496 in savings, with a net total cost of \$312,949 relative to Option 1, noting that this estimate is indicative only.

12.5.2.2 Introduce new licence class for reach stackers

Under this proposal, the OHS Regulations would be amended to introduce a new licence class for reach stackers. This change would mean that those applying for a licence for the first time would be able to apply for the new reach stacker licence, instead of a non-slewing mobile crane operation licence, and individuals operating a reach stacker under an exemption would need to apply for the new reach stacker licence.

As part of the one-to-one interviews, three businesses were identified that operate reach stackers – two under a licence exemption and one under a non-slewing mobile crane operation (CN) licence.

Impacts for businesses operating reach stackers under a CN licence

The one business with staff operating reach stackers under a CN licence estimated they would save \$3,138 per licence under this proposal, noting that this saving would accrue as they would no longer need to provide their own in-house training to supplement the CN licence training that is reportedly insufficient for reach stacker operation.

Based on WorkSafe data, there were 10,657 CN licences on issue in Victoria as of 30 June 2015. Information on the number of these that have been obtained for the sole purposes of using reach stackers is unavailable. However, WorkSafe considers the number is likely to be small. On this basis, it is assumed to be five per cent, or 533 licences. This suggests that the total annual cost saving to Victorian businesses as a result of this proposal is \$1.7 million relative to Option 1, noting that this estimate is indicative only.

In general comments, the business stated:

¹¹⁴ A saving of \$120 per licence over the life of the regulations, or \$12 per year in annualised terms.

This proposal is a great idea. Currently, the training for CN licence is mostly irrelevant so is a waste of time and doesn't result in operators being trained correctly. This means that they have to provide separate in-house training on the use of reach stackers.

Impacts for businesses operating reach stackers under a licence exemption

The two businesses operating reach stackers under the licence exemption both said that they would pay for employees to undertake a training course for a reach stacker operation licence and/or pay the cost of the licence fee under the proposed changes. The average estimated cost per licence was \$1,450.

There are 22 businesses with a licence exemption for operating reach stackers. Assuming that the estimates from the one-to-one interviews are representative, each of these businesses would, on average, have six employees operating reach stackers under the exemption. It can therefore be estimated that 132 reach stacker licensees would need to be obtained under the new arrangements by those that currently have an exemption. This suggests that the total annual cost to Victorian businesses as a result of this proposal is \$191,400 relative to Option 1, noting that this estimate is indicative only.

In general comments, both businesses said that this proposal would not impact on their use of reach stackers.

Summary

Based on the above, it is estimated that this proposal would result in \$191,400 in costs to business and \$1.7 million in savings, with a net total saving of \$1.5 million relative to Option 1, noting that this estimate is indicative only.

12.5.2.3 Broaden the scope of work allowed under the bridge and gantry crane operation licence class and the vehicle loading crane operation licence class

Of the four businesses that were asked about the impacts of this proposal in the one-to-one interviews, three said they would not accrue any labour savings under this proposal. The one business who said that they would, estimated it at \$855 per year. Assuming the results of the one-to-one interviews are representative and that each business has only one licence on average, the estimated average annual labour cost saving per licence is \$214.

In addition to this, three of the four businesses estimated a cost saving from no longer needing to acquire a dogging licence under the proposed changes, at an average saving of \$145 per licence. Assuming the results of the one-to-one interviews are representative and that one dogging licence is saved per bridge and gantry or vehicle loading crane licence, the estimated cost saving per licence is estimated at \$109 per year.

Based on WorkSafe data, there were 11,060 bridge and gantry crane and vehicle loading crane operation licences on issue in Victoria as of 30 June 2015. This suggests that the total annual cost saving to Victorian businesses as a result of this proposal is approximately \$3.6 million relative to Option 1, noting that this estimate is indicative only.

12.5.2.4 Exclude pallet trucks from the scope of the forklift truck operation licence

Under this proposal, individuals operating low lift pallet trucks would no longer need to apply for a HRW licence.

As part of the one-to-one interviews, one business was identified that operates low lift pallet trucks. This business has five employees who have the forklift truck licence but none of them use the forklift truck licence for the sole purpose of operating low lift pallet trucks. It was initially considered that this proposal might result in savings to those employees that have a forklift truck licence solely for the purpose of using low-lift pallet trucks. However, this could not be substantiated on the basis of this one interview. As such, the potential benefit is not quantified for the purposes of this RIS. Further, as part of the one-to-one interviews we approached numerous wholesalers and other large retailers and none of them, with the exception of this one, used low lift pallet trucks. This suggests that the prevalence of these types of trucks is low.

No changes in illnesses and injuries were anticipated as a result of the proposed change.

12.5.2.5 Exclude 'low-level' order-picking forklift trucks from the scope of the order-picking forklift truck operation licence

Under this proposal, persons operating order-picking forklift trucks that lift less than 900mm would no longer need to apply for a high risk work licence. As part of the one-to-one interviews, no businesses were identified that operate low lift order picking forklift trucks. As such, the potential benefits of this proposal are not quantified for the purposes of this RIS.

In follow up consultations with regionally based businesses as part of the focus groups, it was suggested that the current requirement for licences to operate low lift pallet trucks is a barrier to their use. The representatives in the focus group suggested that removing the requirement of a licence may lead to more businesses using low lift pallet trucks as a control for reducing hazardous manual handling.

12.5.2.6 Summary

The above analysis suggests that the proposed changes to the High Risk Work Regulations under Option 2 would result in net savings of \$4.7 million per year, noting that this estimate is indicative only as the underlying calculations are based on a small number of interview responses.

The above analysis also suggests that the proposed changes may result in some other benefits including improved consistency with the model WHS Regulations without impacting safety outcomes. Some technical issues in the drafting of the current OHS Regulations will also be addressed.

12.6 Impact on small business and competition assessment

In light of the above finding that the overall impact of the proposed changes to the High Risk Work Regulations under Option 2 would be positive, it is not considered that there would be any adverse impact on small business and competition as a result of these proposals.

13 Hazardous substances, scheduled carcinogenic substances and lead

13.1 Background

13.1.1 Hazardous substances

The term "hazardous substances" broadly refers to solids, liquids and gases, in both their pure state or as mixtures, which exhibit potential to cause harm to human health.

Many substances commonly used in workplaces (such as fuels, acids, bleaches, glues, paints and solvents) can exhibit harmful properties when used, stored or mixed in particular ways. These substances can also be essential to workplace activities, or play an important role in maintaining or improving our standard of living and the broader economy (such as water purification, hygiene and health care).

The regulatory control of hazardous substances under Part 4.1 of the OHS Regulations adds to the general duties in the OHS Act. In particular there are requirements to ensure that sufficient information about hazardous substances is provided and effective control measures are implemented to protect employees.

13.1.2 Scheduled carcinogens

In contrast to the large range of hazardous substances that are possible carcinogens, or carcinogens that have only a possible link with occupational exposure, there are a number of substances where a link has been established between use of the substance and the induction of cancer. These are referred to as scheduled carcinogenic substances.

Part 4.2 of the OHS Regulations relating to scheduled carcinogenic substances applies a licensing scheme and places duties on suppliers and employers in regard to the supply and use of 19 scheduled carcinogenic substances. These requirements are in addition to the requirements that cover hazardous substances generally, under Part 4.1 of the OHS Regulations. Due to the definitive link between scheduled carcinogenic substances and cancer, additional regulatory requirements are necessary for the protection of employees' health.

13.1.3 Lead

Lead is a naturally occurring blue/grey metal found in small amounts in the earth's crust. Pure lead is a heavy metal at room temperature and pressure. It can combine with other substances to form numerous lead compounds. Exposure to lead in the workplace may occur in a variety of occupations and industries, including smelting and refining, engineering works, radiator repair shops, paint removal, plastics, ammunition and metal products manufacturing.

The adverse health effects of lead exposure are very well known and documented. Exposure can result in a range of health effects depending on the level of toxicity and duration of exposure. Acute exposure can lead to anaemia, abdominal colic (intense cramping of stomach muscles), peripheral neuropathy (damage to peripheral nervous system), and central neuropathy (damage to central nervous system) with toxic encephalopathy (progressive degeneration of certain parts of the brain), nephropathy (kidney disease) and sterility. Tremors, stupor, seizures, coma or death may result from very severe acute poisoning.¹¹⁵ High, chronic exposure to lead can damage the peripheral nervous system (nerves of the arms and legs), resulting in local paralysis, or 'lead palsy'.

In men, exposure to lead may adversely affect sperm mobility, size, numbers and quality, and cause chromosomal defects. In women, high exposures to lead can cause sterility, miscarriage, stillbirth and spontaneous abortion.

Part 4.4 of the OHS Regulations creates a risk based regime that regulates specific activities referred to as 'lead processes' that are known to expose employees to adverse health effects. Information from lead risk job and removal from lead risk job notifications is used to perform targeted inspections of workplaces where employees are showing significant blood lead levels. Part 4.4 only applies to lead metal, lead alloys or inorganic lead compounds and does not apply to organic lead compounds, which are addressed under Part 4.1 of the OHS Regulations.

13.2 Nature and extent of the problem

13.2.1 Description of problem

Victorian employees face substantial and ongoing risks to health from exposure to hazardous substances (including scheduled carcinogens) and lead in the workplace. While a number of consequences are apparent through immediate presentation, many others are not as some illnesses manifest a long period of time after exposure. Injuries and illnesses associated with hazardous substances and lead can arise as employees and employers may find it hard to assess the risks accurately or may have difficulty obtaining information needed to assess such risks. When illnesses take time to develop, employees and employers can discount the risk of illness and therefore underinvest in actions to prevent it. An additional information problem is that employees may simply be ill-informed, and therefore completely unaware, of their exposure in some cases, particularly in the case of lead.

Unlike many physical hazards, the risks associated with exposure to hazardous substances are rarely intuitive in nature. They may be colourless, odourless and can resemble other common substances such as water. In some cases, it is difficult to establish whether exposure to hazardous substances has caused ill health effects as it may take considerable

¹¹⁵ Safe Work Australia, (2013), *Health Monitoring for Exposure to Hazardous Chemicals - Guide for Persons Conducting a Business or Undertaking*, Australian

time for the effects of the exposure to become evident. This becomes even more problematic in instances where the affected person has changed jobs. When the link between exposure and the illness are not well understood, employees and employers can also discount the risk of illness and underinvest in preventative action.

Further, in relation to lead, those working with this substance may not be given specific and thorough attention to manage any health issues that could arise because there may be no unique signs or symptoms.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of exposure to hazardous substances, scheduled carcinogens and lead.

The regulations supplement the general duties under the OHS Act by:

- Hazardous substances:
 - **Prescribing mandatory risk control measures or prohibitions** The OHS Regulations prohibit the use of specified substances at r. 4.1.13 (e.g. use of silica in abrasive blasting) and mandate specific risk control measures at r. 4.1.24(2)
 - Prescribing mandatory performance standards Regulations 4.1.5 and r. 4.1.6 impose requirements for Material Safety Data Sheets (MSDS) and labels on manufacturers, and r. 4.1.26 outlines that exposure standards must not be exceeded
 - Prescribing mandatory processes to be followed The OHS Regulations specify mandatory processes at r. 4.1.4 (for determination of substances), r. 4.1.27 (atmospheric monitoring) and r. 4.1.30 (health surveillance)
 - Placing obligations on employers to keep records Record keeping requirements exist at r. 4.1.23 (hazardous substance register), r. 4.1.29 (atmospheric monitoring records) and r. 4.1.32 (health surveillance records)
- Scheduled carcinogens:
 - Providing permissions The OHS Regulations establish a licencing scheme to restrict access to scheduled carcinogens
 - **Placing obligations on employers to keep records** Record keeping requirements exist at r. 4.2.2(3) (supplier records) and r. 4.2.4 (employer records)
- Lead:
 - Prescribing mandatory risk control measures or prohibitions Regulations r. 4.4.14 and r. 4.4.29 prohibit eating, drinking and smoking while undertaking lead processes
 - Prescribing mandatory performance standards Mandatory performance standards exist for lead exposure at r. 4.4.10, blood lead levels for lead risk-jobs at r. 4.4.17 and blood lead removal levels at r. 4.4.23
 - Prescribing mandatory processes to be followed Hierarchy of controls exist at r. 4.4.8, heath surveillance requirements exist at r. 4.4.20, biological monitoring requirements exist at r. 4.4.22, medical exam duty exists at r. 4.4.24, return after

medical exam process exists at r. 4.4.25 and medical exam requirements exist at r. 4.4.26 $\,$

• **Placing obligations on employers to keep records** – Record keeping requirements exist at r. 4.4.28 (medical exam records).

The regulations reflect the current state of knowledge for the risks, and safe exposure standards to hazardous substances, scheduled carcinogens and lead. Prescribing specific measures in the Regulations provides clear direction to employers on how to meet their obligations under the OHS Act and protects employees from the risks associated with hazardous substances, scheduled carcinogens and lead. The use of specific obligations enables an employer and other duty holders to establish compliance and WorkSafe to take efficient enforcement action where there is non-compliance.

Due to the high degree of harm that the scheduled carcinogenic substances are known to cause, the prescribed record keeping and statement of work requirements for these substances are considered warranted to assist in making a link between occupational exposure to a scheduled carcinogen and the development of cancer at a later stage in life. The requirements in Part 4.1 of the OHS Regulations or reliance on general OHS Act duties are considered insufficient.

13.2.2 Incidence and trends

Keeping in mind the inherent challenge in analysing causation between chemical and material exposures and illness, between 1 July 2007 and 30 June 2015 there were 1,635 compensation claims attributed to hazardous substances (approximately 1 per cent of all standardised claims over this period).¹¹⁶ Over the same period, there were five fatalities associated with contact with chemicals or substances. Chart 13.1 shows the number and incidence of standardised claims attributed to hazardous substances on an annual basis.

There appears to be a decreasing trend in the number and incidence of standard claims. However, this may be related to the nature of hazardous substances issues which can take time to develop into a detectable injury or illness (e.g. cancer). Furthermore, compared to physical work-related injuries, it is difficult to prove that a disease was contracted in, or caused by exposure to a particular substance. This means that standard claims data is likely to underestimate the number of injuries and illnesses attributable to workplace hazardous substance exposure.

¹¹⁶ WorkSafe data.

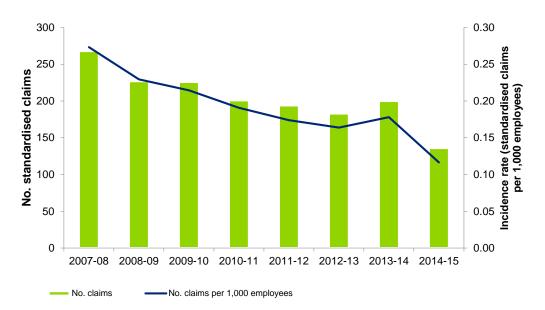


Chart 13.1: Hazardous substances standard claims, 2007-08 to 2014-15

Source: WorkSafe data on the number and incidence of claims where the agency of injury is 'chemicals' and 'materials and substances'.

Exposure to hazardous substances in the workplace is a continuing and persistent issue. The National Industrial Chemicals Notification and Assessment Scheme (NICNAS) list over 38,000 industrial chemicals in the Australian Inventory of Chemical Substances (AICS) and Safe Work Australia maintains the Hazardous Substances Information System (HSIS), a database of over 4,000 hazardous substances.

Community perception surveys can provide supplementary insights into potential exposure. A survey commissioned by WorkSafe in 2012 examined self-reported levels of exposure events to hazardous substances among Victorian employees. Of the employees surveyed, just over one in five reported working in an environment where hazardous substances such as chemicals, flammable liquids and gases are present on a daily basis.¹¹⁷

Another 2012 report utilising National Hazard Exposure Worker Surveillance (NHEWS) survey data focussed on Australian employees' skin exposure to chemicals. This study found that 37 per cent of all survey respondents reported that they had worked with chemicals in the week preceding the survey.¹¹⁸

The Australian Worker Exposure Study (AWES) aimed to investigate the current prevalence of occupational exposure to carcinogens in Australia. This 2014 study looked at workplace exposure to carcinogens across Australia.¹¹⁹ The study focused on exposure to 38 carcinogens previously identified as known and probable carcinogens among Australian

¹¹⁷ Victorian Hazard Exposure Surveillance – July to December 2012, Victorian WorkCover Authority, 2012.

¹¹⁸ MacFarlane E, et al. *National Hazard Exposure Worker Surveillance, Chemical Exposure and the provision of chemical exposure control measures in Australian workplaces.* Monash Centre for Occupational and Environmental Health, March 2012

¹¹⁹ Carey, R.N., et al. Estimated prevalence of exposure to occupational carcinogens in Australia (2011-2012). Occup Environ Med. 2014;71(1):55-62.

workers. Of interview respondents, 37.6 per cent were self-assessed as being exposed to at least one of the occupational carcinogens in their current job. The study extrapolated these figures to the Australian working population and suggested that 40.3 per cent of Australian employees could be exposed to carcinogens in the workplace.

The exposure data above does not directly correlate with the claims data in that the number of claims resulting from exposure to hazardous substances is relatively low in comparison to the number of employees who are exposed to hazardous substances. This may be as a result of the Regulations adequately controlling the risk associated with exposure to hazardous substances. As discussed above, standard claims data may also understate the size of the issue due to an illness not being linked to workplace exposure to a hazardous substance.

There is no direct data on the magnitude of occupational exposure to carcinogens, although claims relating to ill effects of carcinogenic substances are likely to be a subset of the hazardous substances claims outlined above. Fritschi in 2005 looked at the number of Australian employees potentially exposed to carcinogens and suggested it was approximately 1.5 million employees.¹²⁰ It was noted however that the estimates, although based upon the most recent and accurate evidence available, were still based upon a number of assumptions and therefore are only approximate.

In relation to occupational cancer, data from an Australian Safety and Compensation Council report suggests that, in Australia in 2006, the incidence of occupational cancer was as high as 13.8 per cent of cancer deaths in males and 2.2 per cent in females, and 1.5 million Australian employees were exposed to occupational carcinogens.¹²¹ A recent British study from Rushton et al (2012)¹²² concluded that four percent of cancer cases and 5.3 per cent of cancer deaths were due to occupational factors.

Estimating cancer burden associated with occupation is challenging for a number of reasons, including: limited data on exposure; uncertainty about the strength of evidence on exposure and causation; and uncertainty about latency of onset. Due to the long latency between exposure and occurrence of most cancers, occupational cancers identified today will reflect the effect of exposures up to decades previously. Similarly, the burden of cancers resulting from current exposures may not be seen for decades.

In relation to lead, it is difficult to establish accurately the total number of employees occupationally exposed to lead as it has not been possible to accurately assess the number of Victorian workplaces that undertake lead processes. This is because: lead is used in wide variety of industrial settings; there is no general register available which lists workplaces using lead processes as part of the course of normal production; and no single agency currently provides information on the number of workplaces where lead processes occur.

However, 2014 analysis based on AWES results indicates, that approximately 6.6 per cent of the Australian workforce is exposed to lead when performing common work activities. Of

¹²⁰ Fritschi L, (2005), *Profile of Occupational Cancer in Australia: Magnitude, Causes and Prevention Activities*, Australian Government National Occupational Health and Safety Commission

¹²¹ Australian Safety and Compensation Council, *Occupational Cancer in Australia*, April 2006

¹²² Rushton L, et al. Occupational cancer burden in Great Britain. British J Cancer. 2012;107:S3-7.

this group, 96 per cent were male. ¹²³ This data is limited as it does not directly align to lead processes as defined in the Regulations, but rather any tasks which result in exposure to lead. The study also did not specifically target employees in industries such as battery recycling or lead smelting where exposures are likely to be higher.

Data notified to WorkSafe and other Government bodies can be further used to indicate the potential dimension of the problem.

Since 2001 WorkSafe has received 148 notifications of jobs involving lead risk. This is not indicative of the number of employees exposed to lead, however, as it represents cases where employers have employees working on tasks likely to lead to blood lead levels in excess of a prescribed level and have notified WorkSafe of that fact.

From 1 June 2007 to 30 June 2014 there were three standardised claims relating to possible lead poisonings.¹²⁴ However, the number of reported poisonings could underestimate the true level because employees' diagnoses are not always linked with exposure to lead at work, particularly in mild cases where symptoms may often be treated without establishing the underlying cause.

The Department of Health and Human Services (DHHS) receives notifications from medical practitioners or pathology laboratories of blood lead levels exceeding a prescribed threshold. For the period 1 July 2014 to 30 September 2014, DHHS reported that there were 142 notifications of employees with occupational lead exposure, 32 of which were new cases.

Under the OHS Regulations, employers are also required to notify WorkSafe if an employee has been removed from a lead risk job because their blood lead levels exceeded the prescribed concentrations. In the period 1 July 2007 to 30 June 2013, WorkSafe received a total of eight such notifications, an average of less than two per annum. DHHS also notifies WorkSafe within five days of receiving a blood lead level notification from a medical practitioner, where removal from a lead-risk job is required. In the period January 2012 to June 2013, DHHS identified 16 notifications, an average of over ten notifications per annum. This discrepancy indicates under-reporting to WorkSafe.

It should be noted that the number of employees meeting the blood lead removal levels should not be interpreted as lead poisonings. One of the purposes of biological monitoring under Part 4.4 is to remove employees from exposure before any toxic effects can occur.

Based on an analysis of industry subdivisions possibly affected by hazardous substances, carcinogenic substances and lead, there were approximately 1,167,034 people employed in these industries in Victoria in 2014-15¹²⁵, although the number of persons potentially subject to these hazards is likely to be substantially less than this. This is an increase from 2007-08 when there were approximately 980,678 people employed in these industries in Victoria. Broadly speaking, these subdivisions fell within the following industry divisions:

¹²³ Driscoll, T. R. The Australian Work Exposures Study: Lead and Lead compounds. Canberra: Safe Work Australia, 2014.

¹²⁴ WorkSafe data.

¹²⁵ ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015

agriculture, forestry and fishing, mining, manufacturing, electricity, gas, water and waste services, retail trade, accommodation and food services, professional, scientific and technical services, administrative and support services, public administration and safety, education and training, health care and social assistance, and other services.

13.3 Objectives of regulation

The primary purpose of the proposed Hazardous Substances, Scheduled Carcinogenic Substances and Lead Regulations is to prevent injuries, illnesses and deaths by mandating specific risk control measures and processes to eliminate or minimise employees' exposure to these substances and materials in the workplace.

13.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for hazardous substances, scheduled carcinogenic substances and lead are discussed in this section. These options were tested by WorkSafe and the Hazardous Substances, Scheduled Carcinogenic Substances and Lead SRG and assessed against the aims of the review process outlined in Section 1.3. The Hazardous Substances, Scheduled Carcinogenic Substances and Lead SRG consisted of employee and employer representatives with expertise in this topic area.

13.4.1 Policy proposals under Option 2- select improvement changes

13.4.1.1 Removal of reference to the Approved Criteria when classifying and labelling hazardous substances

Under the OHS Regulations, hazardous substances are classified and labelled using either the Approved Criteria for Classifying Hazardous Substances (Approved Criteria), an Australian hazardous substances classification and labelling system currently maintained by Safe Work Australia, or the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), an international classification and labelling system developed and maintained by the United Nations. Other Australian States and Territories operating under the model WHS Regulations also currently allow the flexibility of using either the Approved Criteria or the GHS.

Under the WHS framework, however, the provision to use the Approved Criteria will cease after December 2016. As the two systems use different terminology, classification criteria, terminology and pictograms, labelling under the Approved Criteria system for hazardous substances manufactured or handled by Victorian businesses would not be accepted in other Australian States and Territories after this date.

To address this issue, it is proposed to remove references to the Approved Criteria and HSIS (and associated terminology) and replace these with the equivalent GHS terminology.

13.4.1.2 Recasting the Hazardous Substances Regulations in GHS terminology

The above proposal would also require other consequential changes to the OHS Regulations to recast them in the GHS terminology. Specifically, the OHS Regulations currently allow for classification of hazardous substances, development of material safety data sheets (MSDSs) and labelling using either the Approved Criteria (including the HSIS) or the GHS. The OHS Regulations currently contain terminology that is taken from the Approved Criteria. It is proposed to, where required, change this terminology to align with GHS terminology. Examples of this include 'safety data sheet' instead of 'material safety data sheet', 'chemical identity' instead of 'chemical name' and 'hazard statement' instead of 'risk phrase'.

This will also require additional definitions and the removal of some terms. This will create greater alignment with the model WHS Regulations which have also been drafted using GHS terminology.

13.4.1.3 Alignment with WHS in regards to agricultural and veterinary chemicals labelling requirements

Agricultural chemicals are defined to include pesticides, including herbicides, fungicides, insecticides and plant growth regulators, but do not include fertilisers. Veterinary medicines are defined broadly to include all substances that can be used to cure or alleviate an illness or injury of an animal. Together these are known as AgVet chemicals.

AgVet chemicals can potentially pose risks to human health and the environment. As such AgVet chemicals are regulated under the National Registration Scheme (NRS) – a partnership between the Commonwealth and state and territory governments. Under the NRS, a national regulator - the Australian Pesticides and Veterinary Medicines Authority (APVMA) – undertakes the assessment and registration of AgVet chemical products. However, states and territories are responsible for regulating AgVet chemical use after retail sale.

Hazard statements are phrases assigned to a GHS hazard class and category that describes the nature of the hazards of a hazardous product. A precautionary statement is a phrase that describes the recommended measures that should be taken to minimise or prevent adverse effects resulting from the exposure to a hazardous product, or improper storage or handling of a hazardous product.

Under the model WHS Regulations, AgVet Code labels are acceptable, in accordance with Part 3 of Schedule 9 of the WHS, if:

- AgVet chemicals are labelled in accordance with the requirements of APVMA
- Labels include hazards statements consistent with the correct GHS classification of the chemical
- Any precautionary statement consistent with the correct classification of the chemical

The OHS Regulations (r. 4.1.10) recognise AgVet Code labels but do not specify that hazard statements or precautionary statements need to be included. However, in Victoria, due to

r. 4.1.10(1)(a), the flexibility exists to take either the WHS approach or the approach outlined in the OHS Regulations.

It is proposed to align with the approach taken in the WHS Regulations, which is currently to mandate the inclusion of GHS hazard and precautionary statements on AgVet labels.¹²⁶

13.4.1.4 Amend requirement for manufacturers to review their MSDS

Currently, manufacturers and suppliers of hazardous substances must review MSDSs as often as necessary to ensure currency and accuracy of information, at least every five years. However, it was identified through the SRG process that this requirement is not proportionate to the risk as it technically may require that they review MSDSs for all products that they have supplied in the past, including those no longer being supplied.

To address this, it is proposed to amend the OHS Regulations to specify that an MSDS does not need to be reviewed in cases where the manufacturer or supplier of a hazardous substance has not supplied the hazardous substance to any person or premises for a period of five years since the MSDS was last prepared. This will remove unnecessary compliance requirements and improve consistency with other states and territories and Victoria's Dangerous Goods (Storage and Handling) Regulations.

13.4.1.5 Clarification of licence exemption for storage of carcinogenic substances (r. 4.2.3(4))

It is proposed to clarify that the licence exemption for storage of carcinogenic substances is limited to suppliers who store these substances for short term periods only.

Regulation 4.2.3(4) specifies that a licence is not required if the scheduled carcinogenic substance is supplied in a sealed container and is not intended to be opened on the premises. The policy intent is to exempt suppliers from requiring a licence for the short term storage of a chemical before it is delivered to the customer. It is not intended to allow for long term storage at a workplace so the duty holder can avoid appropriate disposal/destruction of redundant chemicals.

However, the regulation as it's currently drafted has been relied upon by one duty holder (not a supplier) to obtain a large quantity of carcinogens through a laboratory that had shut down and to stockpile and store these chemicals indefinitely without a licence. This has created health and safety risks due to scheduled carcinogens being stored without a licence and the subsequent extra rigor associated with that, and is counter to the purpose of this exemption.

This is a minor clarification to ensure the regulation clearly reflects the policy intent and to reduce the risk of re-occurrence of the above-mentioned isolated incident.

¹²⁶ Hazard statements describe the nature of the hazards of a substance, and precautionary statements describe the recommended measures that should be taken to control the risk.

13.4.1.6 Remove requirement for haematocrit correction during biological monitoring of lead (r. 4.4.5(2))

It is proposed to remove requirement for haematocrit correction during biological monitoring of lead. This is a minor change to remove unnecessary prescription and allow reporting in accordance with standard practices and in a way that is consistent with other Australian States and Territories. This change is not anticipated to result in any material savings in the process of biological monitoring of lead.

13.4.1.7 Amend requirements relating to the lead exposure standard not to be exceeded (r. 4.4.10) and removal from lead-risk job (4.4.23)

In relation to mandatory blood lead removal levels and the workplace exposure standard for lead, this is under review by Safe Work Australia. National resolution is pending the outcomes of a National Decision RIS and public comment. WorkSafe intends to factor in the findings of the national toxicological report and Decision RIS, once completed, when developing the final OHS Regulations 2017.

The preferred option in the Consultation RIS reduces the target and removal blood lead levels and reduces the workplace lead exposure standard.

13.4.1.8 Make Authority determination of lead process a reviewable decision

The Lead Regulations apply to workplaces where a lead process is undertaken. A lead process (r.4.4.2) is defined as consisting of one or more of a range of activities (such as work that exposes a person to lead dust or lead fumes arising from the manufacture or handling of dry lead compounds) and includes a process at a workplace that the Authority determines to be a lead process in accordance with r. 4.4.4. It is proposed to allow the determination made by the Authority to be a reviewable decision.

13.4.2 Other changes considered

13.4.2.1 Overlap between regulation of hazardous substances and dangerous goods (storage and handling)

Consideration was given to aligning with the model WHS Regulations and regulating the storage and handling of dangerous goods under the same framework as hazardous substances. However, this was not pursued because, in Victoria, dangerous goods are regulated under *the Dangerous Goods Act 1985* (DG Act) and are therefore not within scope for the review.

The scope of the two pieces of legislation is different in that hazardous substances account for the risk to health posed by exposure to a substance in a workplace, whereas dangerous goods are substances that exhibit immediate physical or chemical effects, such as flammability or potential to explode. Further, the regulation of dangerous goods is legislated separately because the scope is not confined to regulating risks at workplaces, but applies to dangerous goods outside of the workplace, such as in domestic premises and on public roads.

13.4.2.2 Classification and labelling of waste in the context of hazardous substances

The model WHS Regulations impose a requirement for the correct classification of a waste product into a hazard class under the GHS. In comparison, the OHS Regulations require only that an employer must ensure that containers of waste are identified.

Consideration was given to aligning classification and labelling of waste requirements with the model WHS Regulations. Analysis by WorkSafe has indicated that an additional requirement to classify hazardous chemical waste products and provide MSDSs would result in a net cost to Victorian business without improving safety standards as the waste is already adequately identified under the current requirements. On this basis no change is proposed.

13.4.2.3 Record results of lead-related biological monitoring and reports by medical examinations (r. 4.4.28)

Employers are currently required to keep records regarding lead-related matters for 30 years. Consideration was given to reducing the timeframe. However, it was proposed to not change the timeframe for keeping records as thirty years is the standard timeframe in the OHS Regulations for keeping medical records relating to hazardous substances, scheduled carcinogens and asbestos.

13.4.2.4 Scope of information provision obligation relating to lead (r. 4.4.11)

Under the current OHS Regulations, the employer must provide the results of any atmospheric monitoring to any employee who has been or may be exposed to lead. Consideration was given to instead require that the employer make a copy of results accessible to employees. However, it was proposed not to change this requirement. In practice, this duty does not require the employer to provide the results in writing and verbal updates are permissible. As such, this is not considered to be a major burden and it also ensures that employees are informed. This is because there may be a long latency between exposure to a substance and negative health impacts.

13.4.2.5 Scope of prohibited hazardous substances

The OHS Regulations and model WHS Regulations both prohibit the use of silica (sand) in abrasive blasting. The model WHS Regulations also list 20 other prohibited substances and activities. Consideration was given to adopting the WHS list of prohibited substances in Victoria. However, analysis showed that the substances were either already prohibited in Victoria via other legislation – for example, polychlorinated biphenyls under Environment Protection Authority legislation – or are not used anymore for the prescribed activities – for example tributyltin for spray painting. On this basis no change is proposed.

13.4.2.6 Manufacturer or importer of a hazardous substances to disclose chemical name to registered medical practitioner (r. 4.1.12)

This regulation requires that a manufacturer or an importing supplier of a hazardous substance must immediately disclose the chemical name of an ingredient of a hazardous substance to a registered medical practitioner if the MSDS for the substance, or the label on the container in which the substance is supplied, does not disclose the chemical name of

the ingredient, and the registered medical practitioner requests the chemical name of the ingredient to assist with the management of a patient.

Consideration was given to limiting this provision to "hazardous ingredients" of a hazardous substance. This was prompted by an incident where a doctor requested a full run down of ingredients in a hazardous substance that were not listed on the MSDS. However, it was determined that there could be negative consequences to safety if the provision was limited as people could still react to substances where the chemical name of the ingredient is not listed on the MSDS or the label on the container.

13.4.2.7 Include cyclophosphamide as a scheduled carcinogen requiring a licence

Under the model WHS Regulations, cyclophosphamide (a cytotoxic drug used to treat cancer) is listed as a restricted carcinogen requiring a licence to be obtained. Cyclophosphamide is used in a number of workplaces including hospitals and nursing homes. Duty holders in states and territories subject to the model WHS Regulations are required to get a licence or seek an exemption from the regulation to use cyclophosphamide.

The OHS Regulations do not require a licence for the use of cyclophosphamide.

Consideration was given to including cyclophosphamide as a scheduled carcinogen requiring a licence. However, including cyclophosphamide would increase regulatory burden without increasing safety outcomes. The current framework of drugs, poisons and controlled substances legislation and the general Part 4.1 and OHS Act requirements adequately address the risks associated with cyclophosphamide and other cytotoxic drugs.

Businesses that participated in the one-to-one interviews were asked about the costs and benefits of this proposal. Of the four businesses interviewed that deal with cyclophosphamide, three stated that this change would result in costs. Only one business believed that the change would result in improvements in safety, which was anticipated to be a moderate improvement. None of the businesses interviewed indicated that a nationally consistent approach would result in any cost savings to their business.

13.4.2.8 Identification of lead-risk jobs (r. 4.4.18(2))

Sub-regulation 4.4.18(2) outlines factors to be taken in to account during the identification of lead-risk job. Consideration was given to removing 4.4.18(2) as the provision may be more suitable for guidance material. However, it was proposed not to remove this regulation as subsequent consultation revealed that stakeholders support retaining it to maintain current safety standards.

13.4.2.9 Health surveillance before first starting lead-risk job (r. 4.4.20(1))

Sub-regulation 4.4.20(1) requires that an employer undertake biological monitoring before an employee starts a lead-risk job. Consideration was given to removing this requirement while retaining the requirement for a medical examination. However, it was proposed not to remove this requirement. Subsequent consultation revealed that stakeholders do not see a benefit in making the change as employers would want the biological monitoring done anyway and that it could result in privacy issues.

13.4.2.10 Notification and recording of a lead-risk job (r. 4.4.19)

Sub-regulation 4.4.19(3) requires that an employer retain a copy of the notification under sub-regulation (1) for the period that the lead process is conducted at the workplace. Consideration was given to removing this requirement as WorkSafe will have a copy anyway (required by r. 4.4.19(1)). However, it was proposed not to remove this requirement. Stakeholders were of the view that removal of this requirement would be inconsistent with the WHS approach and not plausible while systems remain paper based.

13.5 Assessment of options

13.5.1 Option 1 – remake existing regulations

Under Option 1, the existing Hazardous Substances, Scheduled Carcinogenic Substances and Lead Regulations at Parts 4.1, 4.2 and 4.4 would be re-made in their current form. This would effectively mean the continuation of the existing requirements for another ten years. Under this scenario, the downward trend in hazardous substances claims experienced over the last decade would be expected to continue into the future.

13.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with hazardous substance and scheduled carcinogenic substance-related obligations in the OHS Act and Regulations is projected to be \$462 million per year in 2017. Of this total cost, approximately \$54 million is attributable to the OHS Regulations, representing 1.8 per cent of the total costs of the OHS Regulations. Based on the results of the interviews and survey, the majority of these costs accrue to the education and training (39%); electricity, gas, water and waste services (19%); and manufacturing (17%) sectors.¹²⁷

Of those that reported OHS Act and Regulation compliance costs associated with hazardous substances and scheduled carcinogenic substances, the average cost was \$559,750 per business per year with estimates ranging between \$38 and \$24.0 million.¹²⁸ The drivers of this cost were risk control (48%), creating and managing MSDSs (46%), labelling (4%) and licencing of scheduled carcinogens (2%). When broken down by business size, the average cost was \$3,933 for small businesses (between \$38 and \$9,000), \$23,569 for medium businesses (between \$761 and \$126,169) and \$1,555,973 for large businesses (between \$1,000 and 24.0 million), noting that some organisations in the large business category have thousands of employees.

Cost estimates were not directly collected for the Lead Regulations through the one-to-one interviews. This was because these regulations are regarded as a low cost area due to the small number of businesses involved in lead risk jobs in the contemporary context.

¹²⁷ Given the small sample size relative to the overall number of businesses across the Victorian economy, these estimates of the split in total costs by industry are illustrative only.

¹²⁸ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all. Further, this estimate may be overstated due to a number of large businesses that were included in the sample. This is corrected for in the aggregated estimates.

However, to the extent that businesses participating in the web-based survey incur costs as a result of the Lead Regulations, such costs would be indirectly factored into the aggregate estimates presented in Chapter 4.

13.5.1.2 Benefits

The primary benefit associated with the Hazardous Substances, Scheduled Carcinogenic Substances and Lead Regulations is the reduction in work-related illness and fatalities resulting from exposure to hazardous substances, carcinogens and lead. Based on the total cost to society associated with hazardous substances compensation claims, it is possible to estimate the number of cases that would need to be prevented in order for the total quantified benefits of prevention to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that 128 cases of illness and one fatality from exposure to hazardous substances and carcinogens would need to be prevented per year in order for the benefits of the Hazardous Substances and Scheduled Carcinogenic Substances Regulations to equal the compliance costs to Victorian businesses, as shown in Table 13.1. This represents 94 per cent of the total number of hazardous substances claims and fatalities in 2014-15. Put another way it would require the prevention of 1 claim per year for every 10,000 employees at risk of an illness or fatality from exposure to hazardous substances and carcinogens.

WorkSafe considers it feasible and reasonable that the regulations would prevent the number of claims required for the benefits to be greater than the compliance costs. The regulations reduce the likelihood of injuries, illnesses and fatalities by specifying processes and standards to reduce employees' workplace exposure to hazardous substances, scheduled carcinogens and lead. As some illnesses take time to develop some of the current claims relate to historic exposures and reflect the risk control measures in place at that time. The exposure standards in the regulations reflect the current state of knowledge and are updated as the state of knowledge changes.

On this basis the compliance costs are considered to be lower than the benefits.

Table 13.1: Break-even analysis – hazardous substances and scheduled carcinogenic substances

Total annual compliance cost to Victorian businesses in 2017 ¹	\$53,789,504
Average fully developed cost of claims ²	\$49,450
Prevented cost to employees and society per case of injury/illness ³	\$396,692
Prevented cost to employees and society per fatality ⁴	\$4,264,505
Break-even number of cases of injury/illness per year ⁵	128
Break-even number of fatalities per year ⁶	1
% total claims and fatalities in 2014-15 ⁷	94%
Break-even number of cases as a % of employees at risk ⁸	0.01%

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²WorkSafe data (see Table 3.2). ³Calculated by adding the average fully developed cost of claims (direct cost) to an estimate of the average indirect cost of claims based on Safe Work Australia estimates which suggests that indirect costs are 7.02 times direct costs (Safe Work Australia, August 2015, *The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community*, Canberra). ⁴Based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars (Department of Treasury and Finance, (2013), Economic Evaluation for Business Cases, Melbourne). This estimate has been inflated to 2015 dollars. ⁵95 per cent of the total compliance cost to Victorian businesses divided by the prevented cost to employees and society per case of injury or illness. ⁶Five per cent of the total compliance cost to Victorian businesses divided by the prevented cost to employees and society per fatality. ⁷Based on WorkSafe data (see Table 3.2). ⁸Calculated as a ratio of the break-even number of cases of injury/illness and fatalities per year to the estimated number of employees at risk of this hazard (see Table 3.2).

13.5.2 Option 2 – select improvement changes

A number of changes are proposed to the Hazardous Substances, Scheduled Carcinogenic Substances and Lead Regulations under Option 2. Based on a review of the proposed changes and subsequent discussions with WorkSafe technical staff, it was considered that some of these proposals would not result in any substantive quantifiable costs or benefits to employers. From a qualitative perspective, the changes will remove unnecessary prescription, ensure the OHS Regulations clearly reflect the policy intent and improve national consistency. This applies to the following proposed changes:

- Clarification of licence exemption for storage of carcinogenic substances
- Amend blood lead level definition
- Amend the term 'lead-risk job' to 'lead-risk work'
- Remove requirement for haematocrit correction during biological monitoring of lead.

In relation to the other proposed changes, it was considered that these might result in costs or cost savings to business. These other requirements are listed as follows and discussed below:

- Removal of reference to the Approved Criteria when classifying and labelling hazardous substances
- Recasting the Hazardous Substances Regulations in GHS terminology
- Alignment with WHS in regards to agricultural and veterinary chemicals labelling requirements
- Amend requirement for manufacturers to review their MSDS.

In relation to mandatory blood lead removal levels and the workplace exposure standard for lead, this is under review by Safe Work Australia and the costs and benefits of potential

changes in these areas are being assessed as part of a National Decision RIS. As such, the potential impact of these proposals is not assessed in this RIS.

13.5.2.1 Removal of reference to the Approved Criteria when classifying and labelling hazardous substances, and recasting of the Hazardous Substances Regulations in GHS terminology

It is proposed to remove references to the Approved Criteria and HSIS and replace these with the equivalent GHS terminology. This would also require other consequential changes to the OHS Regulations to recast them in the GHS terminology.

Of the seven businesses in the one-to-one interviews that identified themselves as manufacturers or suppliers of hazardous substances, all of them said that they already intend to transition to the GHS before 1 July 2017. This was because they supply chemical products in other states and territories and will need to adopt the GHS to comply with the new WHS requirements. One business was of the view that only a small number of businesses would be affected by the proposed changes to the OHS Regulations as the Victorian market is not self-sustaining and, therefore, there are only a few small-to-medium businesses that supply solely in Victoria.

Of the seven businesses that identified themselves as manufacturers or suppliers of hazardous substances, one classifies in accordance with GHS, two in accordance with the Approved Criteria and one a mix of the two. The other three were unsure. These results indicate that many of these businesses will have to update their MSDSs and labels as a result of the shift to the GHS. However, they will be doing so regardless of the proposed change to the OHS Regulations. Two businesses were able to estimate the costs of updating their MSDSs and labels to comply with the new WHS requirements. One small business estimated the once-off cost at \$9,019 and the other (a large business) \$39,081. This suggests an approximate average once-off cost of \$9,770 when weighted for size.¹²⁹

Despite this finding, there are likely to be a small number of businesses who supply chemical products purely in Victoria and that would have to switch to the GHS due to the proposed changes to the OHS Regulations in Victoria. Indeed, this question was explored as part of a WorkSafe survey of 73 small to medium chemical manufacturers undertaken in 2014. According to the survey results, five (6.8 per cent) of these businesses did not supply their products in other states and territories. Further, the same number of businesses reported that they did not intend to change to the GHS – likely to be the same five businesses that said they only supply in Victoria. Applying this to an estimated 947 manufacturers of hazardous substances in Victoria¹³⁰, it is estimated that this proposal

¹²⁹ Calculation adopts a simplifying assumption that the cost estimate provided by the large business is representative of both large and medium businesses.

¹³⁰ Based on ABS data, there are approximately 2,367 businesses in Victoria that are manufactures or wholesalers of chemicals (ABS, 2015, *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014* (ABS release no: 8165.0), February 2015). This was estimated using business counts from ANZSIC subdivisions "Basic Chemical and Chemical Product Manufacturing" and "Polymer Product and Rubber Product Manufacturing", and industry class "Industrial and Agricultural Chemical Product Wholesaling". The results of the one-to-one interviews suggest that 40 per cent of chemical manufacturers and suppliers are also suppliers of hazardous substances. Assuming these results are representative of Victorian businesses as a whole, it is estimated that there are 947 manufacturers of hazardous substances in Victoria.

would impact 65 businesses. Assuming the results of the one-to-one interviews are representative and that the \$9,770 cost estimate outlined above is applicable to Victorian businesses that will need to transition to the GHS as a result of this proposal, the total impact on Victorian businesses as a result of this proposed change is estimated at \$633,732 in once-off costs relative to Option 1, or \$63,373 per year in annualised terms.

13.5.2.2 Alignment with WHS in regards to agricultural and veterinary chemicals labelling requirements

It is proposed to mandate the inclusion of GHS hazard and precautionary statements on AgVet labels, which will align with the model WHS Regulations.

Of the two businesses in the one-to-one interviews that identified themselves as manufacturers or suppliers of AgVet products, one said that they currently plan to include the GHS hazard and precautionary statements on labels approved by the Australian Pesticides and Veterinary Medicines Authority and the other was unsure. No other comments were provided in relation to the merits of this proposal.

As mentioned above, WorkSafe commissioned a survey of chemical manufacturers on the potential impacts of these proposals. The survey results indicate that there are unlikely to be many Victorian AgVet chemical manufacturers that sell their products solely in Victoria, noting that only a small proportion (20 per cent) of respondents reported that they make either veterinary or agricultural chemical products. As manufacturers trading with WHS states and territories will need to include hazard and precautionary statements on labels in order to comply with the WHS requirements, the change to GHS labelling will ensure that both the OHS Regulations and the regulations specifically covering AgVet chemicals will be nationally compatible, but will most likely not result in material costs to Victorian businesses.

13.5.2.3 Amend requirement for manufacturers to review their MSDS

It is proposed to amend the OHS Regulations to specify that an MSDS does not need to be reviewed in cases where the manufacturer or supplier of a hazardous substance has not supplied the hazardous substance to any person or premises for a period of five years since the MSDS was last prepared.

Of the seven businesses in the one-to-one interviews that identified themselves as manufacturers or suppliers of hazardous substances, two reported that this proposed change would result in a cost saving to their business, four said it wouldn't and one was unsure. One of the businesses that reported a cost saving said that they would no longer need to review MSDSs when supplying them to customers for products that have been supplied previously. They also noted that this happens quite regularly. One of the businesses that reported that they would not experience a cost saving said the proposal would still be beneficial from a non-financial perspective.

Of the two estimates provided, the average cost saving was \$5,321 per year, noting that these estimates were provided by two medium businesses. When factoring in that four businesses said they wouldn't experience a cost saving, the average cost saving across all manufacturers or suppliers of hazardous substances can be estimated at \$1,774. Applying this to an estimated 947 manufacturers of hazardous substances in Victoria (see section

13.5.2.1), it is estimated that this proposal would result in a total annual cost saving of \$1.7 million per year relative to Option 1.

13.5.2.4 Summary

The above analysis suggest that the proposed changes to the Hazardous Substances, Scheduled Carcinogenic Substances and Lead Regulations under Option 2 would result in costs of \$63,373 per year in annualised terms from the proposal to adopt the GHS terminology and savings of \$1.7 million per year from the proposal to amend the requirement for manufacturers to review their MSDS. The other proposed changes are not anticipated to result in any quantifiable costs or benefits. This suggests that the proposed changes in this area will result in an overall net saving of \$1.6 million per year to manufacturers and suppliers of hazardous substances.

The above analysis also suggest that the proposed changes may result in some other benefits including reduced safety risks, reduced unnecessary prescription and greater consistency with the model WHS Regulations.

13.6 Impact on small business and competition assessment

As suggested by one of the businesses that participated in the one-to-one interviews, the proposal to adopt the GHS terminology would likely only impact small-to-medium businesses that supply solely in Victoria, implying that larger businesses would not be impacted as they supply to other states and territories and will therefore have to adopt the GHS anyway. This suggests that small businesses may be disproportionately impacted by this proposed change.

Of those that reported a cost saving as a result of the proposal to amend the requirement for manufacturers to review their MSDS, both were medium businesses. Nonetheless, it is reasonable to assume that these savings would also apply to small businesses. Any such savings to small businesses should be considered in the context of the disproportionate impact on small businesses mentioned above.

As the proposal to adopt the GHS terminology would apply to both manufacturers and importers of hazardous substances, and will align with the WHS resulting in a level playing field nationally, it is not anticipated to impact competition between chemical manufacturers and suppliers across Australia. The other proposals are also not anticipated to result in any impacts on competition.

14 Asbestos

14.1 Background

Asbestos is defined as any one of a number of fibrous forms of mineral silicates belonging to the serpentine and amphibole groups of rock-forming minerals. Three types of asbestos were mined in Australia chrysotile (white asbestos), amosite (brown asbestos) and crocidolite (blue asbestos). Asbestos fibres are strong, durable and have heat resistant and insulating properties. This led to the widespread use of asbestos in more than 3000 building products up until the mid-1980s, including cement roof sheeting and wall lining, lagging and jointing material, and vinyl floor tiles.

The use of asbestos in Australia declined after the late 1970s, and at the end of 2003 it was banned under a national prohibition. However, its widespread use in the past has meant that there are many asbestos products still present in buildings and structures in Victoria today.

Asbestos poses a risk to health when asbestos fibres are disturbed and released into the air as a dust that people may breathe. The adverse health effects of exposure to asbestos are well documented with clinical and epidemiological studies establishing that exposure to airborne asbestos can cause asbestosis, lung cancer and mesothelioma. Treatments for these diseases are largely ineffective and many asbestos-related conditions are life threatening or associated with a marked reduction in life expectancy. There can be a delay of many years between first exposure to asbestos fibres and any symptoms of these diseases; for example, the latency period for mesothelioma is generally between 35-40 years. The World Health Organisation and the International Agency for Research on Cancer have stated there is no identified safe threshold for exposure to asbestos. While limited or short-term exposure to more highly-damaging forms of asbestos fibres is potentially dangerous,¹³¹ exposure does not necessarily make the development of mesothelioma inevitable. There is still much unknown about why some people are susceptible to mesothelioma, while others who have been regularly exposed to asbestos do not develop any asbestos-related disease. This is why a precautionary approach to exposure to asbestos fibres is adopted by governments.¹³²

Part 4.3 of the OHS Regulations currently requires the presence and location of asbestos to be identified, labelled and recorded in a register, and for any asbestos-containing material that has deteriorated to be removed, sealed or enclosed to eliminate the risk of asbestos fibres being released into the air. Specific requirements also apply to the removal of asbestos, including how asbestos is to be removed and who may remove asbestos.

¹³¹ IARC, *A Review of Human Carcinogens: Arsenic, Metals, Fibres, and Dusts*, In: IARC (ed.) Monographs on the Evaluation of Carcinogenic Risks to Humans, 2012, vol. 100C, pp 219-309

¹³² Asbestos Safety Eradication Agency (ASEA), (2014), *National Strategic Plan for Asbestos Management and Awareness 2014-18*, p.5, available online https://asbestossafety .gov.au/national-strategic-plan, last access 22 February 2016

14.2 Nature and extent of the problem

14.2.1 Description of problem

Exposure to airborne asbestos fibres can cause asbestosis, lung cancer and mesothelioma. These diseases have a long latency period between exposure and the onset of symptoms which is usually between 20 and 50 years. Asbestos fibres are not visible to the naked eye. They are very light, remain airborne for a long time and can be carried by wind and air currents over large distances. This makes it a difficult hazard to identify and control.

Diseases associated with exposure to asbestos can arise as employees and employers may find it hard to assess the risks accurately and are likely to underestimate the risk particularly given the lag between exposure and symptoms. When illnesses take time to develop, employees and employers can discount the risk of illness and therefore underinvest in actions to prevent it. Employers may also have difficulty obtaining information needed to assess such risks.

An additional problem is that employees (and employers in many cases) may simply be illinformed, and therefore completely unaware, of their exposure to asbestos in some cases e.g. unaware that they are drilling into asbestos cement sheet causing asbestos fibres to become air borne. The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of asbestos.

The Asbestos Regulations supplement the general duties under the OHS Act by:

Prescribing mandatory risk control measures or prohibitions – 'Part 4.3 – Asbestos' prescribes specific risk control measures for the removal of friable asbestos, which includes performing the work in an enclosed area, smoke-testing that enclosure, and removing the asbestos using the wet method. Specific risk control requirements are also prescribed for the management of asbestos in the workplace, which includes identifying where asbestos is present and removing, enclosing or sealing asbestos that is at risk of releasing airborne fibres. The Regulations also provide prohibitions in relation to the manufacture, supply, storage, transport, sale, use, re-use and replacement of asbestos in the community more broadly.

The Asbestos Regulations through the requirement for asbestos registers reduces the likelihood that a person will be unknowingly exposed to asbestos. An asbestos register identifies where asbestos is present in the workplace and this information is to be provided, for example, to tradespeople undertaking work at the workplace.

For those who are involved in the removal of asbestos, the regulations prescribe the risk control measures that are to be used to minimise exposure from removal activities. Prescribing what must be done prevents employees and employers from discounting the future risk of developing an asbestos related disease and underinvesting in risk control measures.

Prescribing specific measures in the OHS Regulations assists employers to meet their obligations under the OHS Act. The use of specific obligations enables an employer and other duty holders to establish compliance and WorkSafe to take efficient enforcement action where there is non-compliance.

14.2.2 Incidence and trends

Australia has the world's highest incidence rate of malignant mesothelioma which, due to the 20 to 50 year latency period between exposure and the onset of symptoms, is expected to peak by 2020¹³³.

Due to the lag between exposure to asbestos fibres and the development of asbestosrelated diseases, asbestos-related incidence and mortality rate statistics relate to asbestos exposure up to fifty years ago. These statistics do not provide any indication of exposure to asbestos in current workplaces. While data on the presence of asbestos exposure today does not exist, historical data provides a broad indication of the nature and extent of the risk.

In Australia 575 people were diagnosed with mesothelioma in 2013 and 619 in 2012. In Victoria, there were 123 new cases of mesothelioma in 2013 - 91 men and 32 women.¹³⁴

Between 1 July 2007 and 30 June 2014 there were 88 asbestos-related compensation claims submitted (approximately 0.04 per cent of all standardised claims in this period).¹³⁵ Over the same period, there were 24 fatalities from asbestos-related diseases. Chart 14.1 shows the number and incidence of standardised claims for asbestos-related illnesses on an annual basis. As indicated, the annual number and incidence of claims has fluctuated over the period.

¹³³ Cancer Council Victoria, (2015), *Mesothelioma webpage*, available online, http://www.cancervic.org.au/about-cancer/cancer_types/mesothelioma, last accessed 1 April 2015

¹³⁴ Australian Mesothelioma Registry 3rd Annual Report, Mesothelioma in Australia 2013

¹³⁵ WorkSafe data.

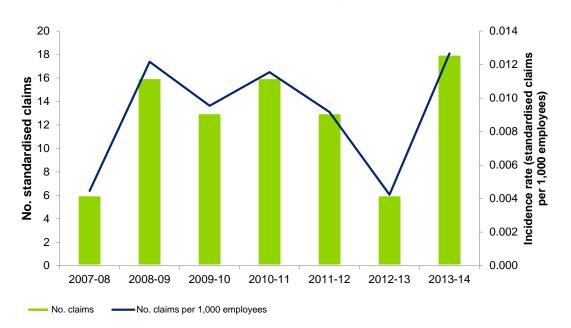


Chart 14.1: Asbestos standard claims, 2007-08 to 2013-14

Source: WorkSafe data.

Based on an analysis of industry subdivisions possibly affected by asbestos hazards, there were approximately 1,448,789 people employed in these industries in Victoria in 2014-15. This includes industries where asbestos is potentially present in the workplace (i.e. where an asbestos register is required).¹³⁶ This is an increase from 2007-08 when there were approximately 1,344,045 people employed in these industries in Victoria. Broadly speaking, these subdivisions fell within the following industry divisions: agriculture, forestry and fishing, manufacturing, electricity, gas, water and waste services, construction, wholesale trade, retail trade, transport, postal and warehousing, information, media and telecommunications, administrative and support services, public administration and safety, education and training, health care and social assistance, and other services. While it is theoretically possible that employees in all industries may potentially be exposed to asbestos, this analysis excludes those where the chance of exposure is low.

Within the 1,448,789 figure, it is estimated that 316,108 people are employed in industries involving occupations that may disturb asbestos as part of their work activity (includes waste removalists, cleaners, telecommunications workers, construction/trades workers and building maintenance workers) and 1,132,681 people are employed in industries that typically operate out of buildings that may contain asbestos that is typically not disturbed (such as industrial buildings, warehouses and factories). The risks of exposure to airborne asbestos fibres are greater in occupations that may disturb asbestos such as asbestos removalists and tradespersons. Exposure is less likely to occur to employees who work in a building where asbestos may be present but is not disturbed.

¹³⁶ ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015

14.3 Objectives of regulation

The primary purpose of the proposed Asbestos Regulations is to prevent deaths and illnesses from exposure to airborne asbestos fibres in the workplace.

14.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for asbestos are discussed in this section. These options were tested by WorkSafe and the Asbestos SRG and assessed against the aims of the review process outlined in Section 1.3. The Asbestos SRG consisted of employee and employer representatives with expertise in this topic area.

14.4.1 Policy proposals under Option 2- select improvement changes

14.4.1.1 Remove asbestos register requirements for buildings built after 2003 if asbestos has not been identified and is not likely to be present

A national prohibition on the use of all forms of asbestos came into effect on 31 December 2003. It is illegal to manufacture, supply, store, transport, sell, use, install or re-use products containing asbestos, including automotive brake pads and gaskets. Employers in all workplaces and persons with management or control of a building, structure or ship (that is a workplace) are currently required to identify asbestos, label it and record it in a register. However, this requirement is unnecessary for workplaces where buildings, structures, ship or plant are built or made on or after 2003 as the use of asbestos has been prohibited since this date.

It is proposed to allow an employer or person with management and control of a workplace to assume asbestos is not present under Division 5 and Division 6 if the buildings, structures, ship or plant was built or made on or after 31 December 2003 and if asbestos has not been identified and is not likely to be present. The aim of this proposal is to reduce the regulatory burden for affected persons who manage or control a workplace while maintaining health and safety standards.

Although it is illegal to manufacture asbestos-containing material in Victoria, asbestos is still used in products manufactured in some countries. Victorian importers of goods from countries that still manufacture asbestos-containing goods are required to ensure that asbestos is not introduced into Victoria. There have been recent examples where asbestos has been found in imported buildings materials. To protect the community, the Heads of Workplace Safety Authorities (HWSA) have developed a rapid response protocol when asbestos has been identified in imported materials. In addition, a fact sheet has been developed to assist businesses to avoid inadvertently importing goods or materials containing asbestos into Australia.

14.4.1.2 Make Division 5 and Division 6 applicable regardless of whether there is fixed and installed asbestos present at the workplace

It is proposed to apply Division 5 and Division 6 to all asbestos in the workplace not just where asbestos is fixed and installed. Currently Division 5 and Division 6 only apply to a workplace where there is fixed and installed asbestos present. This essentially creates a regulatory gap in a scenario where they may be no fixed or installed asbestos present at the workplace but there may be other forms of asbestos such as asbestos contaminated soil or asbestos contaminated dust (ACD). For example, a workplace may have asbestos fragments in soil perhaps from removal work undertaken in the past. According to the regulations if there is no fixed and installed asbestos present at the workplace the asbestoscontaminated soil is not required to be identified or recorded in a register. If someone were to undertake some demolition or excavation work at the workplace they should have information available that alerts them to the presence of asbestos.

The proposal will ensure that all asbestos in the workplace is identified and associated risks are appropriately managed. It is not intended that an employer would need to 'search' for asbestos, The caveats proposed above in 14.4.1.1 will allow an employer to assume asbestos is not present; in a building, structure, ship or plant built or made on or after 31 December 2003 and if asbestos has not been identified and is not likely to be present.

14.4.1.3 Incorporate the Dangerous Goods Asbestos Order 2007 into the Regulations

It is proposed to incorporate the Dangerous Goods Asbestos Order (DGO 2007) into Division 7 of the Asbestos Part of the OHS Regulations. This will consolidate the asbestos regulatory framework and effectively apply all of the safe removal requirements in Division 7 to all forms of asbestos – fixed and installed and not fixed or installed. In addition to applying Division 7 to all forms of asbestos, the thresholds for removal of asbestos that is not fixed or installed contained in the DGO 2007 will now form part of the licensed and non-licensed provisions.

Asbestos is primarily regulated under the OHS Regulations, however for historical reasons the removal of asbestos that is not fixed or installed (including ACD) is regulated under the DGO 2007.

The DGO 2007 provides for who can remove asbestos that is not fixed or installed but not how this removal can be performed safely. The Removal of Asbestos in Workplaces Compliance Code (the Code) provides that non licensed removal of asbestos that is not fixed or installed must be performed in accordance with the asbestos removal regulatory requirements in r. 4.3.45 to r. 4.3.60. This appears to provide that safe removal requirements equally apply to all forms of asbestos removal regardless of whether it is fixed or installed or not fixed or installed; however, the term "asbestos removal work" is currently a defined term and is limited to work involving fixed or installed asbestos (r.1.1.5).

Incorporating the DGO 2007 into the OHS Regulations will:

- Consolidate all legislation on asbestos into one document
- Simplify compliance by avoiding the need for duty holders to refer to separate statutory instruments

• Improve the flexibility of the OHS Regulations by allowing Class B licence holders to remove all non-friable asbestos regardless of whether it is fixed and installed or not fixed or installed

14.4.1.4 Broaden the scope of removal permitted under a Class B asbestos removal licence

Class B removalists are currently restricted under the DGO 2007 from removing non-friable asbestos that is not fixed or installed, despite being able to remove unlimited amounts of fixed or installed non-friable asbestos.

By incorporating the DGO 2007 into the OHS Regulations, and given that the same method of removal and risk control would be used for non-friable asbestos that is not fixed or installed, it is proposed that Class B asbestos removal licence holders be enabled to remove all non-friable asbestos under the OHS Regulations regardless of whether the asbestos is fixed or installed, or not fixed or installed.

In relation to the removal of ACD not associated with the removal of non-friable asbestos, it is proposed to incorporate the requirements outlined in DGO 2007, which are considered to be proportionate to risk.

This allows Class B removal of ACD:

- If the removal of ACD does not exceed ten minutes in total, and in a cumulative sense does not exceed one hour in seven days, or
- Where an independent person determines that airborne asbestos fibre levels are likely to be less than one half of the asbestos exposure standard.

14.4.1.5 Improve information about proposed asbestos removal work (r.4.3.49 & r.4.3.90)

Division 7 of the Asbestos Part requires duty holders to inform others that asbestos removal work will be undertaken. These duties apply to both non-licensed and licensed removal.

In regards to non-licensed removal r. 4.3.49 requires an employer or self-employed person to inform the person who commissioned the work that asbestos removal work will be performed. That informed person must then notify employers in immediate and adjacent areas before the removal takes place. Those informed employers then have to inform their employees before the work commences.

For licensed removal r. 4.3.90 requires that a person who commissions removal work must, before the work, inform all employers in immediate and adjacent areas. Regulation 4.3.99 then requires that for all asbestos removal (licensed and non-licensed) an employer at a workplace must, before removal, inform employees in immediate and adjacent areas.

It appears that in relation to licensed removal, employers who have been informed are not required to notify their employees. It is proposed to introduce a requirement for licensed removal work that employers who have been informed of asbestos removal should inform their employees in immediate and adjacent areas.

14.4.1.6 Remove regulations that relate to notifying WorkSafe of the name and contact details of registered medical practitioners engaged to undertake medical examinations

Under the OHS Regulations, employers undertaking asbestos removal work are required to provide WorkSafe with the name and contact details of registered medical practitioners engaged to undertake medical examinations. As WorkSafe obtains the details of these medical practitioners through other channels, the process of the employer providing the details to WorkSafe is no longer required.

It is proposed to remove the requirement to notify WorkSafe of the name and contact details of registered medical practitioners engaged to undertake medical examinations. Equivalent provisions in the Mines and Lead Parts of the OHS Regulations were repealed in the OHS Amendment Regulations 2014.

14.4.1.7 Create flexibility by allowing a Class A asbestos licence holder to engage an independent contractor who operates an excavator

Under r. 4.3.61(1)(b) of the OHS Regulations, persons undertaking licensed asbestos removal work must be an employee of a licence holder to perform that asbestos removal work. There are situations where this regulation has made it difficult to undertake certain types of asbestos removal work where the licensed removalist has needed to engage a subcontractor to assist, such as engaging an excavator operator to assist with the demolition of a building which contains asbestos. While the regulations require such persons to be employed by the licensed removalist, some licensees have reported to the WorkSafe inspectorate that it is not always practical to employ such persons on an ongoing basis as the need for supplementary skills may only be required for particular asbestos removal situations.

It is proposed to allow a Class A licence holder to engage an independent contractor who operates an excavator provided the independent contractor is supervised by the licence holder and the asbestos removal supervisor. This will enable Class A licence holders to access excavator operator services where necessary from time to time to undertake asbestos removal work. The regulation protects health and safety by ensuring that the independent contractor is appropriately supervised.

14.4.1.8 Update information to be included in a notification of asbestos removal work (Schedule 8)

It is proposed to update the information required to be included in a notification of asbestos removal work. Regulation 4.3.97 requires an asbestos licence holder to notify WorkSafe of asbestos removal work if the work involves the removal of a total area of ten square metres or less of non-friable ACM that is fixed or installed in a building, structure, ship or plant, at least 24 hours before the work commences; or in any other case, at least five days before the work commences. Regulation 4.3.98 also requires the asbestos licence holder to notify the Authority if an unexpected situation occurs, not later than 24 hours after commencing asbestos removal work.

The notification in r. 4.3.97 and r. 4.3.98 must be in accordance with Schedule 8. Schedule 8 lists all of the information required to be included in a notification and includes amongst

other things, the name of the licence holder, name of the supervisor, client name and contact details, type of ACM and the date of notification.

A review was undertaken of Schedule 8 to determine if the current notification requirements are still relevant. Following that review the following changes were proposed:

- Remove item 12 (Details of training and experience of individual employees) and item 13 (Date of asbestos register) as this information can be obtained through citing training records and the asbestos control plan
- Include ACD in item 7 (whether the asbestos is friable or non-friable) given incorporation of the DGO 2007
- Include the number of persons in item 11 (number of employees) given the proposal to allow independent contractors (operators of excavators specifically) to perform asbestos removal work
- For Class B removal of ACD, require the name of the independent person who determined that airborne asbestos fibre levels are likely to be less than one half of the exposure standard.

The proposed changes to Schedule 8 remove items that can be obtained from other sources reducing the regulatory burden without reducing safety standards. As a consequence of other changes to the regulations additional items have been added to Schedule 8 as detailed above to maintain the integrity of the notification requirements.

14.4.2 Other changes considered

14.4.2.1 Definition of friable

Consideration was given to whether the definition of 'friable' should be amended to include dust which is already in the form of powder. Including dust in the definition of friable asbestos would result in any dust generated during a non-friable removal job or dust contaminated with non-friable asbestos immediately becoming 'friable' and requiring a Class A removalist. This may create unnecessary delays, cause confusion and is not proportionate to risk. It could also create health and safety risks as it is unlikely that a Class A removalist could attend minor removal jobs promptly.

14.4.2.2 No unlicensed removal

Consideration was given to whether all non-licensed removal of asbestos should be prohibited (as is now the case in ACT). However, this was not pursued as the current approach is proportionate to risk. Non-licensed removal work is limited by prescribed thresholds and must be performed in accordance with risk control requirements in the Regulations. The employer or self-employed person performing the work must also be adequately trained. Licencing all forms of removal would create a cost to business to engage a licensed removalist for minor removal work that is low risk.

14.4.2.3 Asbestos management plans

Asbestos management plans are required under the model WHS Regulations but are not mandatory in Victoria. An asbestos management plan is essentially a tool for compliance and assists the duty holder manage their asbestos related duties.

Consideration was given to adopting the WHS approach. However, mandating this requirement was expected to increase the regulatory burden without a corresponding increase in safety benefits. The Victorian Asbestos Compliance Codes contain advice and a template for an asbestos management plan if an employer opts to utilise this as a way of managing their obligations.

The costs and benefits of this proposal are explored as part of Option 3 in Section 19.3.7.

14.4.2.4 Training and competency requirements

Under r. 4.3.65, an asbestos licence holder must ensure that a person does not perform asbestos removal work for the licence holder unless the person is informed, instructed and trained to perform that work in a manner that is safe and without risks to health. The OHS Regulations take a broader approach than the Model WHS laws, which mandate training through the Vocational Education and Training (VET) sector with nationally recognised units of competency. While Victoria does not mandate a training through the VET sector, employees still have the ability to undertake nationally recognised training (as per WHS laws) as well as specific and targeted training courses for different types of asbestos removal.

Requiring a mandatory VET course be completed does not guarantee that removalists will hold sufficient knowledge, skills and experience. The Victorian approach focuses on a person having sufficient knowledge, skills, and experience to work safely and is more flexible than the WHS approach. The current approach is to be maintained.

14.4.2.5 Asbestos assessor licence

The Regulations require that the person who commissioned licenced asbestos removal work must obtain a clearance certificate upon completion of the removal work. In Victoria a clearance certificate is issued by an independent person who has the requisite knowledge, skills, and experience to undertake the task, such as an occupational hygienist. Under the model WHS Regulations, the person issuing the clearance certificate for Class A removal work must be a licenced assessor.

Consideration was given to adopting the WHS approach. However, the current Victorian framework provides flexibility as to how an independent person acquires the relevant knowledge, skills and experience and allows optional completion of the qualifications mandated in the model WHS Regulations.

14.4.2.6 One licence class of Class A standard

At the request of stakeholders, consideration was given to introducing one licence class of a Class A standard. However, the current two class structure is appropriate as the risks involved in different removal jobs vary and lower risk removal jobs can be safely undertaken by Class B removalists. The current approach is proportionate to risk and allows for the safe removal of non-friable and friable asbestos.

14.5 Assessment of options

14.5.1 Option 1 – remake existing regulations

Under Option 1, 'Part 4.3 - Asbestos' would be re-made in its current form. This would effectively mean the continuation of the existing safety requirements for another ten years. Current asbestos claims experience relate to exposure 20–50 years ago. The benefits of the current safety practices will be seen in claims data in the future.

14.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with Asbestos-related obligations in the OHS Act and Regulations is projected to be \$109 million per year in 2017. Of this total cost, approximately \$17 million is attributable to the OHS Regulations, representing 0.6 per cent of the total costs of the OHS Regulations. Based on the results of the interviews and survey, the majority of these costs accrue to the electricity, gas, water and waste services (34%); education and training (28%); and retail trade (28%) sectors.¹³⁷

Of those that reported OHS Act and Regulation compliance costs associated with the presence of asbestos in the workplace, the average cost was \$353,089 per medium or large business per year with estimates ranging between \$48 and \$5.5 million, noting that no small businesses reported costs in this area.¹³⁸ The drivers of this cost were maintenance and review of the asbestos register (68%) and other requirements including the removal of asbestos identified (32%). When broken down by business size, the average cost was \$2,290 for medium businesses (between \$48 and \$8,372) and \$586,955 for large businesses (between \$500 and \$5.5 million), noting that some organisations in the large business category have thousands of employees.

Of those that reported OHS Act and Regulation compliance costs associated with undertaking asbestos removal work, the average cost was \$67,138 per small or medium business per year with estimates ranging between \$7,853 and \$165,951, noting that no large businesses reported costs in this area.¹³⁹ The drivers of this cost were the requirement to be licenced (40%) the safety management system requirement for Class A removalists (30%) and other requirements (30%). When broken down by business size, the average cost

¹³⁷ Given the small sample size relative to the overall number of businesses across the Victorian economy, these estimates of the split in total costs by industry are illustrative only.

¹³⁸ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all. Further, this estimate may be overstated due to a number of large businesses that were included in the sample. This is corrected for in the aggregated estimates.

¹³⁹ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all. Further, this estimate may be understated due to a lack of large businesses in the sample. This is corrected for in the aggregated estimates.

was \$78,995 for small businesses (between \$13,134 and \$165,951) and \$7,853 for medium businesses, noting that only one estimate was provided for medium size businesses.¹⁴⁰

14.5.1.2 Benefits

The primary benefit associated with the Asbestos Regulations is the reduction in workrelated illness and fatalities from exposure to asbestos. Based on the total cost to society associated with asbestos compensation claims, it is possible to estimate the number of cases that would need to be prevented in order for the total quantified benefits of prevention to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that eight cases of injury and illness and two fatalities from exposure to asbestos would need to be prevented per year in order for the benefits of the Asbestos Regulations to equal the compliance costs to Victorian businesses, as shown in Table 14.1. This represents 46 per cent of the total number of asbestos claims and fatalities in 2014-15. Put another way it would require the prevention of seven asbestos related claims for every 1,000,000 employees at risk of exposure to asbestos.

WorkSafe considers it feasible and reasonable that the regulations would prevent the number of claims required for the benefits to be greater than the compliance costs. The regulations reduce the likelihood that a person would be inadvertently exposed to asbestos. They also specify the risk control measures that are to be used to minimise exposure from removal activities. As asbestos diseases develop over time the impact of the current regulations on claims will not be seen for many years.

Table 14.1: Break-even analysis – asbestos

· · · · · · · · · · · · · · · · · · ·	
Total annual compliance cost to Victorian businesses in 2017 ¹	\$17,392,096
Average fully developed cost of claims ²	\$160,398
Prevented cost to employees and society per case of injury/illness ³	\$1,286,725
Prevented cost to employees and society per fatality ⁴	\$4,264,505
Break-even number of cases of injury/illness per year ⁵	8
Break-even number of fatalities per year ⁶	2
% total claims and fatalities in 2014-15 ⁷	46%
Break-even number of cases as a % of employees at risk ⁸	0.0007%

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²WorkSafe data (see Table 3.2). ³Calculated by adding the average fully developed cost of claims (direct cost) to an estimate of the average indirect cost of claims based on Safe Work Australia estimates which suggests that indirect costs are 7.02 times direct costs (Safe Work Australia, August 2015, *The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community*, Canberra). ⁴Based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars (Department of Treasury and Finance, (2013), Economic Evaluation for Business Cases, Melbourne). This estimate has been inflated to 2015 dollars. ⁵61 per cent of the total compliance cost to Victorian businesses divided by the prevented cost to employees and society per case of injury or illness. ⁶39 per cent of the total compliance cost to Victorian businesses divided by the prevented cost to employees and society per fatality. ⁷Based on WorkSafe data (see Table 3.2). ⁸Calculated as a ratio of the break-even number of cases of injury/illness and fatalities per year to the estimated number of employees at risk of this hazard (see Table 3.2).

¹⁴⁰ Note that these estimates are based on a small sample of businesses so the comparison across different businesses sizes should be interpreted with caution – particularly the result for medium-sized businesses.

14.5.2 Option 2 – select improvement changes

A number of changes are proposed to the Asbestos Regulations under Option 2. Based on a review of the proposed changes, it was considered that some of these proposals would not result in any substantive quantifiable costs or benefits to employers. From a qualitative perspective, the changes will modernise the OHS Regulations and make it easier and clearer for duty holders to access and understand their regulatory obligations. This applies to the following proposed changes:

• Broaden the scope of removal activities permitted under Class B removal.

In relation to the other proposed changes, it was considered that these might result in costs or cost savings to business. These other requirements are listed as follows and discussed below:

- Remove asbestos register requirements for buildings, structures, ship or plant built or made after 2003 if asbestos has not been identified and is not likely to be present
- Allow persons not employed directly by a licenced removalist to assist in undertaking asbestos removal work provided that certain requirements are met
- Create flexibility by allowing a Class A asbestos licence holder to engage an independent contractor who operates an excavator.
- Remove regulations that relate to notifying WorkSafe of the name and contact details of registered medical practitioners engaged to undertake medical examinations.

14.5.2.1 Remove asbestos register requirements and demolition/refurbishment regulatory requirements for buildings that are built after 31 December 2003

Of the 63 business that were asked about the costs of keeping an asbestos register, 60 per cent said that they do not face these costs because they do not keep an asbestos register. Those who cited a reason said that they don't currently keep an asbestos register because asbestos isn't present in their workplace. This suggests that current practice among employers is to not keep an asbestos register if asbestos isn't present.

Businesses were also asked if they operate in a building(s) built after December 2003. Of those interviewed about costs in this area, 19 per cent said that they operate solely in a building(s) built after this date and 17 per cent said that some of the buildings they operate in were built after this date. None of the businesses who said they operate solely in a building(s) built after this date reported any cost savings as a result of this proposal, mostly because they don't currently keep one. This analysis suggests that this proposal would bring the OHS Regulations in line with current practice and would therefore not result in any cost savings.

14.5.2.2 Allow persons not employed directly by a licenced removalist to assist in undertaking asbestos removal work provided that certain requirements are met

Of the five asbestos removalist businesses that were asked about the impacts of this proposal in the one-to-one interviews, three businesses said that they occasionally engage someone with specialised skills that are not normally associated with asbestos removal (such as excavation).

These three businesses engage someone with specialised skills that are not normally associated with asbestos removal approximately 1.5 times per year on average. Of these three businesses, one said that the cost saving would be minimal but that the proposal would be beneficial from a safety perspective. The other two businesses said that it would be beneficial from both a cost saving and safety perspective. These two businesses could not provide an estimate of the average cost saving, but one said the saving could be as high as \$400,000 in some cases.

Of the two businesses that said that they don't occasionally engage someone with specialised skills not normally associated with asbestos removal, one thought that the proposal would be beneficial to the industry more generally and the other said that the proposal has the potential for exploitation.

This analysis suggests that this proposal has the potential for benefits from both a cost saving and safety perspective. However, such savings are not quantified in this RIS due to a lack of estimates provided.

14.5.2.3 Remove regulations that relate to notifying the Authority of the name and contact details of registered medical practitioners engaged to undertake medical examinations

Of the five asbestos removalist businesses that were asked about the impacts of this proposal in the one-to-one interviews, none said that this would result in cost savings to their business. Removalists are required to provide this information when they apply for and renew their asbestos removal licence. The reason provided was that the cost savings would be so small as to be negligible. Two businesses were supportive of this change despite the lack of material cost savings.

14.5.2.4 Summary

The above analysis suggest that the proposed changes to the Asbestos Regulations under Option 2 would not result in any cost impacts on Victorian businesses, with the exception of a number of asbestos removalist businesses who occasionally engage someone with specialised skills that are not normally associated with asbestos removal. Two out of the five asbestos removalists reported this as a potential cost saving, but were unable to estimate the extent of the saving other than to say it could be as high as \$400,000 on some projects. The business was a large construction company.

The above analysis also suggests that the proposed changes may result in other benefits including removing unnecessary requirements without diminishing safety, modernisation of the OHS Regulations, and making it easier for duty holders to understand their regulatory obligations.

14.6 Impact on small business and competition assessment

In light of the above finding that the overall cost impacts of the proposed changes to the Asbestos Regulations under Option 2 would be minor, it is not considered that there would be any material impact on small business and competition as a result of these proposals.

15 Construction

15.1 Background

Construction work comprises any work that is performed in connection with the construction, alteration, conversion, fitting out, commissioning, decommissioning, renovation, refurbishment, decommissioning or demolition of a building or structure or similar activity.

Some examples of what is considered construction work include:

- Installation, testing maintenance and repair work performed in connection with the construction work
- The removal of product or waste from a workplace resulting from demolition, and
- The prefabrication or testing of elements at a place specifically established for the construction project.

Some examples of what is not considered construction work are:

- The assembly, disassembly, prefabrication or manufacture of fixed plant
- The prefabrication of elements as standard stock for sale
- Routine or minor testing, maintenance or repair work performed in connection with a building or structure.

Changing working environment

The act of constructing means that employees are continuously engaged on physically changing the construction itself and by extension their own working environment. Because a construction site is not static, hazards and risks emerge constantly and change can be very rapid, for example the erection of tilt-up concrete panels. Structures grow in height and breadth, excavations are made and filled, and plant and hazardous substances come and go. Potentially hazardous manual work is common as are particular hazards such as falls risks, interaction with plant and risks relating to structural collapse.

OHS co-ordination

Large sites generally have greater potential for hazards and risks than small sites. Larger sites engage more people at any one time, as well as overall. They also tend to involve larger numbers of different trades and professions, which, in turn, increases the opportunity for breakdowns in the understanding of hazards and risks and the coordination of controls and other OHS matters.

OHS coordination can be further compromised by the staggered commencement and conclusion of individual parts of a construction project. Turnover of employees on large construction sites is high, as employees arrive, complete their part of the project, and leave. Over the life of a construction site hundreds of employees could pass through with only a small percentage engaged at any one time.

Interface with the public

The construction industry and construction work can have a significant physical interface with non-workplaces and, as such, can affect public safety in a manner that is distinct from most other workplaces or undertakings. The highest risk construction activities, such as multi-level buildings and underground car parks, are often undertaken in close proximity to the public, such as in Victoria's central business districts and shopping precincts. Some developments, such as the redevelopment of a hospital or transport hub, also require continued public access to the facility as construction is taking place. Residential developments can also pose risks to the public through physical interface with footpaths.

In addition to the duties in relation to hazard-based risks in the OHS Regulations, Part 5.1 Construction requires duty holders to:

- Control construction related risks in accordance with a hierarchy of control
- Review, and if necessary revise, risk control measures in response to specific triggers
- Record risks and measures to control risks within a safe work method statement (SWMS) when undertaking certain construction tasks identified as high risk construction work, ensure work is undertaken in accordance with the SWMS and revise and review as specified
- Ensure employees and contractors have undertaken site specific training and construction induction training (employees and contractors have corresponding duties to undertake construction induction training)
- Notify WorkSafe of their intention to undertake certain types of excavation work. Also
 the principle contractor on a construction project has specific duties in relation to
 signage and the preparation of health and safety co-ordination plans where the cost of
 a construction project is \$350,000 or more.

15.2 Nature and extent of the problem

15.2.1 Description of problem

Construction work is high risk due to the presence of numerous hazards, the dynamic nature of the workplace and the potential for severe injuries and fatalities. The construction industry continues to have one of the highest rates of claims for injuries and deaths in both Australia and Victoria.

The most common causes of construction related injuries are:

- Body stressing
- Falls, trips and slips
- Being hit by a moving object
- Sound and pressure.

Body stressing includes injuries resulting from repetitive movement and muscle stress from lifting, handling or carrying objects. Regulation of the hazards and risks associated with such mechanism of injury would also fall under manual handling. Falls, trips and slips include falls from height, falls on the same level and stepping, kneeling and sitting on objects. Regulation of the hazards and risks associated with such mechanisms of injury would also

fall under the prevention of falls where the fall is from a height greater than two metres. Being hit by a moving object includes injuries resulting from being hit by a falling object, being trapped by moving machinery, being trapped between a stationary and moving objects and being hit by an animal or person.

Construction sites are unique, with different hazards presenting at different times due to the nature of the work. Most construction projects involve many contractors and subcontractors often working together on a site. This creates a level of complexity in terms of health and safety and management of hazards and risks not associated with other industries.

Injuries, illnesses and fatalities can arise as employers may find it hard to identify, assess and control the myriad of risks on a construction site and coordinate the various construction activities happening on site at one time. As a construction site is constantly changing, the nature and presence of hazards is also changing.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of construction.

Due to the complex and changing nature of construction workplaces the regulations provide additional prescription as to how to meet the obligations in the OHS Act. The Construction Regulations supplement the general duties under the OHS Act and the hazard based risks under the OHS Regulations by:

- **Prescribing mandatory performance standards** For example, an employer or selfemployed person must not perform high risk construction work if there is a risk to health or safety to any person arising from the work, unless there is a SWMS in place, is being implemented and reviewed and revised (r. 5.1.9, r. 5.1.10). Employers and selfemployed people must also ensure that employees undertaking construction work complete site induction training (r. 5.1.12) and construction induction training (r. 5.1.20). Principal contractors must prepare a health and safety coordination plan before work commences and monitor and maintain the plan (r. 5.1.16, 5.1.17 and 5.1.18).
- Prescribing mandatory processes to be followed For example, employers and selfemployed people must control risk in accordance with a hierarchy of control (r. 5.1.7) and review any risk control measures when specific events occur (r. 5.1.8). Employer must notify the Authority of an intention to undertake excavation work in certain circumstances (r. 5.1.27)
- Providing permissions For example, a person performing construction work must undertake construction training and hold a construction induction card (r. 5.1.20). Currently the obtaining of a CI (Construction Induction) card occurs through the registration process (r. 5.1.21 and Part 6.2)
- Placing obligations on employers to keep records For example, employers must keep a copy of all relevant SWMS for the duration of the work (r. 5.1.11). Principal contractors must ensure that a health and safety plan is available for inspection (r. 5.1.18).

The Construction Regulations address the coordination requirements of construction sites by requiring a SWMS to be prepared for high risk construction work, and principal contractors to prepare safety coordination plans for construction above a threshold value. Preparation of these plans requires the identification, assessment and control of the health and safety risks of the particular construction project

The nature and type of hazards on a construction site can change from day to day. The requirement for a person performing construction work to have a construction induction card means that the person has some awareness of the hazards that may be present on a construction site.

Prescribing specific measures in the Regulations assists employers and self-employed people to meet their obligations under the OHS Act. The use of specific obligations enables employers, self-employed people and other duty holders to establish compliance and WorkSafe to take efficient enforcement action where there is non-compliance.

15.2.2 Incidence and trends

Research by Safe Work Australia shows that, in 2015, construction had the third highest number of fatalities across Australia.¹⁴¹ Only two groups recorded higher numbers: Transport, postal and warehousing and agriculture and forestry and fishing. This has consistently been the case since 2008.

Between 1 July 2007 and 30 June 2015, construction had the second highest level of workplace fatalities in Victoria with 40 deaths out of 174 (23%).¹⁴² The top four mechanisms of injury attributable to construction sector fatalities over the period were falls from a height, being hit by falling objects, electrocution and being hit by a moving object.

Between 1 July 2007 and 30 June 2015 there were 26,962 construction-related compensation claims submitted (approximately 12 per cent of all standardised claims in this period).¹⁴³ Chart 15.1 shows the number of standardised claims in the construction industry on an annual basis.

As indicated, the number of claims has decreased over recent years, as has the incidence rate.

¹⁴¹ Safe Work Australia, (2015), *Work-related traumatic injury fatalities, Australia 2013* and *Worker fatalities – Year-to-date 2015: worker deaths by industry of workplace* (as at 12 October 2015), website: http://www.safeworkaustralia.gov.au

¹⁴² WorkSafe, n.d., *Victorian Government Data Directory*, Accessed January 2016, available at: http://www.worksafe.vic.gov.au/about-vwa/data

¹⁴³ WorkSafe data.

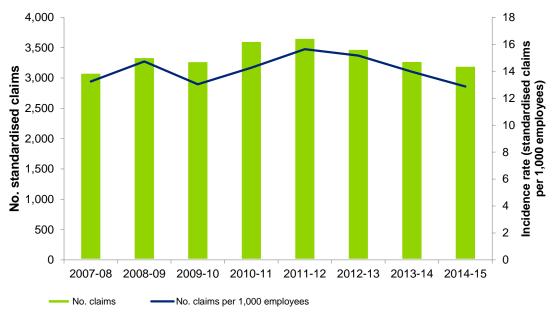


Chart 15.1: Construction standard claims, 2007-08 to 2014-15

Source: WorkSafe data.

Based on ABS data, there were approximately 248,968 people employed in the construction industry in Victoria in 2014-15.¹⁴⁴ This is an increase from 2007-08 when there were approximately 233,440 people employed in these industries in Victoria.

15.3 Objectives of regulation

The primary purpose of the proposed Construction Regulations is to prevent injuries, illnesses and fatalities from occurring at construction sites by prescribing specific risk control processes and notification training requirements.

15.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for construction are discussed in this section. These options were tested by WorkSafe and the Construction SRG and assessed against the aims of the review process outlined in Section 1.3. The Construction SRG consisted of employee and employer representatives with expertise in this topic area.

¹⁴⁴ ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015

15.4.1 Policy proposals under Option 2- select improvement changes

15.4.1.1 Changes to terminology regarding construction induction requirements

It is proposed to remove references to 'registration' in relation to the construction induction training requirements and to make changes to ensure that the provisions refer directly to the requirement to undertake construction induction training and to hold a 'construction induction training card' (CI card) evidencing that training has been undertaken. This is expected to result in improved safety because it will focus duty holders on the importance of undertaking construction induction training which provides training on key hazards and risk on the construction sites.

15.4.1.2 Revise the definition of construction work in relation to the prefabrication process

It is proposed to revise the definition of construction work so that it is clearer that the prefabrication of elements undertaken off-site from the intended construction site, will be excluded from the definition of "construction work" provided that place is not specifically established for the construction project. The scope of 'construction work' under the regulations is not intended to cover activities such as the pre-fabrication or testing of elements undertaken off-site in an environment that is more akin to manufacturing. This is because work undertaken in a static workplace environment is already subject to occupational health and safety laws and the hazards in that environment are different to the type of hazards that exist on a construction site (specifically addressed in Part 5.1).

15.4.1.3 Emergency response procedures

Consideration was given to introducing a new mandatory requirement to document emergency response procedures on construction sites. There is currently no specific regulatory requirement to establish these under the OHS Regulations unless the type of construction work being undertaken involves a risk of a fall above two metres, or work is being done in a confined space. The requirements for SWMS and health and safety coordination plan are likely to include emergency response procedures. It was determined to include a mandatory requirement for emergency response procedures for construction to be documented where there is a risk of engulfment by soil or other material. This was considered a proportionate response to control the risks and reduce the severity of injury and likelihood of death which can result from construction work where engulfment is a risk. The impact of wide-scale adoption of emergency planning across Victorian industry is explored as part of Option 3 of this RIS.

15.4.2 Other changes considered

15.4.2.1 Application and scope of the construction regulations

Maintenance work on plant

The application of the Construction Regulations, in relation to maintenance work, manufacturing and working with plant was considered. Any fixed plant is considered to be a

structure, therefore any 'construction work' performed in connection with fixed plant would attract the construction duties unless excluded.

Repairs and maintenance work is not included in the scope of the definition of construction work. 'Routine or minor testing, maintenance work or repair work performed in connection with a building or structure' is explicitly excluded in the regulations. The assembly, disassembly, prefabrication or manufacture of fixed plant is also specifically excluded.

It was determined that no change was required as the Regulations remained clear on what is included and explicitly excluded. If any further clarification is required it can be dealt with through the development of guidance.

Housing industry

Consideration was given to the inclusion of housing-specific construction regulations, separate from the general construction chapter.

It was proposed that no change was required as the same hazards exist on both housing and general construction sites and given the number of employees and the number of fatalities in the housing construction sector, it was considered that the same duties should continue to apply.

Owner builders

Consideration was given to whether a specific reference to 'owner-builders' (a term which is currently not defined in the Regulations, but commonly used among industry), is required to clarify when the construction duties apply. The Regulations make it clear that the Construction Regulations do not apply to the owner of domestic premises personally performing construction work at those premises and therefore the duties in the Construction Regulations, including the requirement to undertake construction training, do not apply.

It was considered that the current Regulations are clear and if further specific clarification is required it would be more suitably placed in guidance.

15.4.2.2 Principal contractor duties

Health and safety coordination plans are considered an essential component for ensuring coordination of multiple contractors working on a construction site where coordination issues that may lead to health and safety incidents.

Threshold amount

Consideration was given to the suitability of the current principal contractor threshold amount of \$350,000 which was increased from \$250,000 in the 2014 amendment to the OHS Regulations. The OHS Act does not allow for the indexation of the threshold. A number of indexation methodologies were considered to determine the optimum value to accommodate the life of the proposed Regulations. Trends in indexation were calculated using historical averages and after considering the options, it is proposed to retain the threshold at \$350,000 for the life of the 2017 OHS Regulations. The \$350,000 amount is

considered to adequately cover the larger, higher risk construction projects where coordination risks are a key issue.

Consideration was also given to alternative approaches to a dollar threshold for example having a threshold based on the number of employees on site as the coordination risks increase as the number of employees increases. However it was considered that while more closely aligned with the risk than a dollar threshold it would be difficult to implement and enforce. For simplicity and enforceability a dollar threshold was maintained.

Additional duties

Consideration was given to adopting additional duties for principal contractors in accordance with the model WHS Regulations. These duties include the need to obtain copies of SWMS, putting procedures in place to ensure compliance with certain general workplace duties and managing specified risks in accordance with the hierarchy of control. However, it was proposed not to proceed with this change. It was considered that the additional duties would increase the regulatory burden, particularly record keeping requirements without offering significant safety benefits. Further, this area is sufficiently covered by existing duties and supplemented by Codes and guidance material.

15.4.2.3 Safe work method statements (SWMS)

A SWMS is a safety planning tool that requires employers to identify the hazards and risks associated with high risk construction work and document those hazards and risks and the control measures necessary to manage those risks. The SWMS should describe in clear terms how risks from any high risk work will be effectively controlled to enable the work to be done safely.

Consideration was given to whether the duties in relation to SWMS should be maintained as it was being reported that the time and cost associated with development of SWMS had increased. Investigations revealed that many employers include detail on non-high risk construction work in the SWMS which was adding to the time and cost involved. Such detail is not required by the current Regulations and therefore it was considered the Regulations should be maintained due to the ongoing safety benefit it provides.

To address the issues raised, WorkSafe has updated guidance on SWMS to make it clear what is required to comply with the Regulations.¹⁴⁵

15.4.2.4 Construction excavation duties

Consideration was given to whether the duty to notify WorkSafe of an intention to undertake specific types of excavation work should be removed or whether changes should be made to the scope or operation of the duty. However, it was determined that the current approach was proportionate given construction excavation is a high risk activity. It was considered that the identification, assessment and implementation of risk control

http://www.worksafe.vic.gov.au/info/__data/assets/pdf_file/0020/183161/WorkSafe_SafeWorkMethodsState ments_WEB.pdf

¹⁴⁵ WorkSafe (2015) Information about: Safe work methods statements, available online

measures that are included in the model WHS Regulations can be dealt with in a Compliance Code and do not need to be included in the OHS Regulations.

15.4.2.5 Falling objects

Consideration was given to whether there is a case for specific regulation for falling objects, which is a hazard area regulated by the model WHS Regulations. The risk of falling objects is significant in the construction industry and also affects workers in other industries. However, it was proposed not to proceed with this change under Option 2 of this RIS. It is considered that a regulatory change is not warranted at this time as the specific hazards and risks can be addressed in guidance. The existing general duties of the OHS Act and Regulations are considered sufficient to cover hazards and risks associated with falling objects from a regulatory perspective. WorkSafe proposes to ensure the specific risks and hazards associated with falling objects within the construction industry are communicated and made available through published guidance. The impacts of a proposal to include specific regulations for falling objects more broadly are explored as part of Option 3 of this RIS.

15.4.2.6 Lasers

Consideration was given to aligning with r. 323(6) of the model WHS Regulations, which prohibits the use of specified lasers in construction work. However, it was proposed not to proceed with this change as there does not appear to be an issue with these types of lasers in Victoria at present. If an issue does arise, it is proposed to develop specific guidance.

15.4.2.7 Electrical safety

Consideration was given to whether some parts of the model WHS Regulations relating to electrical safety should be picked up in the OHS Regulations. However, it was proposed not to proceed with this change. It is considered that electrical safety is sufficiently covered by Energy Safe Victoria legislation and existing duties under the OHS Act and Regulations.

15.5 Assessment of options

15.5.1 Option 1 – remake existing regulations

Under Option 1, 'Part 5.1 – Construction' would be re-made in its current form. This would effectively mean the continuation of the existing requirements for another ten years.

15.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with obligations relating to SWMS, the principal contractor duties and construction induction training in the OHS Act and Regulations is projected to be \$4.00 billion per year in 2017. Of this total cost, approximately \$868 million is attributable to the OHS Regulations, representing 28.5 per cent of the total costs of the OHS Regulations. Based on the results on the interviews and survey, the majority of these costs

accrue to the construction (95%) and professional, scientific and technical services (5%) sectors. $^{\rm 146}$

Of those who reported OHS Act and Regulation compliance costs in this area, the average cost was approximately \$180,000 per business per year with estimates ranging between \$350 and \$1.3 million.¹⁴⁷ The drivers of this cost were SWMS (49%), construction induction training and registration (34%), the principal contractor duty with \$350,000 threshold trigger requirement for health and safety coordination plan (12%) and other requirements (4%). When broken down by business size, the average cost was approximately \$87,000 for small businesses (between \$350 and \$337,210), \$380,000 for medium businesses (between \$28,860 and \$748,736) and \$490,000 for large businesses.¹⁴⁸

15.5.1.2 Benefits

The primary benefit associated with the Construction Regulations is the reduction in workrelated injuries, illness and fatalities occurring at construction sites. Based on the total cost to society associated with construction compensation claims, it is possible to estimate the number of cases that would need to be prevented in order for the total quantified benefits of prevention to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that 1,407 cases of injury and illness and three fatalities from construction accidents would need to be prevented per year in order for the benefits of the Construction Regulations to equal the compliance costs to Victorian businesses, as shown in Table 15.1. This represents 44 per cent of the total number of construction claims and fatalities in 2014-15. Put another way it would require the prevention of 57 injuries or fatalities for every 10,000 employees at risk of construction accidents.

WorkSafe considers it feasible and reasonable that the regulations would prevent the number of claims required for the benefits to be greater than the compliance costs.. The Construction Regulations reduce the likelihood of injuries and fatalities in the construction industry by prescribing requirements for the development and implementation of a SWMS for high risk construction work and for principal contractors to prepare a safety coordination plan for construction above a \$350,000 threshold. The requirement for people doing construction work to hole, a construction induction card also means that people working on construction sites have an awareness of the hazards that may be present reducing the likelihood of being injured.

¹⁴⁶ Given the small sample size relative to the overall number of businesses across the Victorian economy, these estimates of the split in total costs by industry are illustrative only.

¹⁴⁷ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all.

¹⁴⁸ The figure for small businesses is likely biased upward as many large construction companies are classed as small employers due to the fact that they contract out most of their labour force. More generally, these estimates are based on a sample of businesses so results from the comparison across different businesses sizes should be interpreted with caution.

Table 15.1: Break-even analysis – construction

Total annual compliance cost to Victorian businesses in 2017 ¹	\$867,800,957
Average fully developed cost of claims ²	\$75,951
Prevented cost to workers and society per case of injury/illness ³	\$609,285
Prevented cost to workers and society per fatality ⁴	\$4,264,505
Break-even number of cases of injury/illness per year ⁵	1,407
Break-even number of fatalities per year ⁶	3
% total claims and fatalities in 2014-15 ⁷	44%
Break-even number of cases as a % of employees at risk ⁸	0.57%

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²WorkSafe data (see Table 3.2). ³Calculated by adding the average fully developed cost of claims (direct cost) to an estimate of the average indirect cost of claims based on Safe Work Australia estimates which suggests that indirect costs are 7.02 times direct costs (Safe Work Australia, August 2015, *The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community*, Canberra). ⁴Based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars (Department of Treasury and Finance, (2013), Economic Evaluation for Business Cases, Melbourne). This estimate has been inflated to 2015 dollars. ⁵99 per cent of the total compliance cost to Victorian businesses divided by the prevented cost to workers and society per case of injury or illness. ⁶One per cent of the total compliance cost to Victorian businesses divided by the prevented cost to workers and society per fatality. ⁷Based on WorkSafe data (see Table 3.2). ⁸Calculated as a ratio of the break-even number of cases of injury/illness and fatalities per year to the estimated number of employees at risk of this hazard (see Table 3.2).

15.5.2 Option 2 – select improvement changes

Under Option 2, changes proposed in relation to the Construction Regulations are:

- Remove the registration requirement for construction, noting that the requirement for construction induction cards would be retained
- Revise the definition of construction work in relation to the pre-fabrication process.

Based on a review of the proposed changes and subsequent discussions with WorkSafe technical staff, it was considered that these proposals would not result in any substantive quantifiable costs or benefits to employers. From a qualitative perspective, the changes will reduce uncertainty and align with practice in other states and territories.

15.6 Impact on small business and competition assessment

In light of the above finding that the overall cost impacts of the proposed changes to the Construction Regulations under Option 2 would be minor, it is not considered that there would be any material impact on small business and competition as a result of these proposals.

16 Major hazard facilities

16.1 Background

Major hazard facilities (MHFs) are sites that store or process large quantities of hazardous materials including petroleum products and chemicals. MHFs have the potential for major incidents, the consequences of which may rival those of natural disasters in terms of loss of life, injury, damage to property and the environment and disruption to community services. The types of major incidents that could occur include explosions and the release of toxic chemicals into the environment.

A MHF is defined as a facility that contains hazardous materials above defined threshold quantities (as detailed in Schedule 9 of the OHS Regulations), or a facility WorkSafe determines to be a MHF.

Examples of MHFs include oil refineries, major chemical storage and handling facilities, gas production and distribution plants and chemical processing plants. As at December 2015 Victoria had 36 MHF licences covering 38 licensed sites, which must comply with stringent legal requirements to ensure they are operated safely.

16.2 Nature and extent of the problem

16.2.1 Description of problem

The importance of regulating MHFs results from the potential for extremely serious consequences of a major incident, rather than the potential for frequent major incidents to occur. An incident at an MHF could have catastrophic consequences, not only for employees at the facility, but also for people in the general vicinity.

The probability of a catastrophic event is low and there is a risk that in the absence of prescriptive requirements operators could underinvest in risk identification, risk control measures and emergency planning. Operators of MHFs do not bear the full financial costs associated with an incident. For example, a major incident can impose significant costs on employees and the broader community (e.g. households and businesses in neighbouring areas).

Reliance on self-regulation of MHFs, even if supported by the general OHS Act duties of care, is inappropriate given the significance of the consequences of a major incident. At the time of the Longford gas explosion in Victoria (which killed two employees and caused estimated losses of \$1.6 billion), general duties were in place and were supported by the 1996 National Standard for the Control of Major Hazard Facilities. However, this proved insufficient to prevent, or mitigate the effects of, the incident, which can at least partly be attributed to the lack of prescriptive mandatory requirements in place at the time to manage the risks inherent in the operation of a MHF.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of major hazard facilities.

The MHF Regulations supplement the general duties under the OHS Act by:

- Prescribing mandatory processes to be followed The OHS Regulations prescribe the content of mandatory safety documentation such as a Safety Management System (r. 5.2.5) and Safety Assessment (r. 5.2.7)
- **Providing permissions** MHFs are subject to a registration and licensing regime (Parts 6.1 and 6.2)
- Placing obligations on employers to keep records MHF operators are required to keep records of training (r. 5.2.20) and there is also extensive documentation required in preparing and maintaining a Safety Management System, Safety Case, Safety Assessment and providing information to the local community.

The regulations by prescribing specific processes that must be followed ensure that low probability events are not treated as zero probability events. Prescribing specific measures in the Regulations assists operators to effectively control risks at the MHF, thereby meeting their obligations under the OHS Act. The use of specific obligations enables an employer and other duty holders to establish compliance and WorkSafe to take efficient enforcement action where there is non-compliance.

16.2.2 Incidence and trends

There have been two major incidents in Victoria in recent decades that underpin the policy behind the MHF Regulations. These were the Longford gas explosion and the Coode Island explosion. The Longford gas explosion in 1998 killed two employees and caused estimated losses of \$1.6 billion (including \$1.4 billion in business loss claims).¹⁴⁹ The fire zone that developed immediately after the incident was relatively small, yet the rebuild cost was of the order of \$200 million.

The Coode Island explosion in 1991 led to the evacuation of some schools, buildings and ships and the closure of roads. The incident required the use of 155 emergency services personnel, some of whom were injured in the process. The cost of the emergency services activities came to over \$2 million and damage and clean-up costs were later assessed at between \$20 and \$35 million.

In Victoria there are currently 36 MHF licences covering 38 sites (as at December 2015). There are approximately 11,400 employees working at these facilities.¹⁵⁰

¹⁴⁹ Department of Treasury and Finance and the Safety Case Working Party Victoria, (2002), *Review of Major Hazards Regulations*, Ernst and Young, June.

¹⁵⁰ As at December 2015 Victoria had 36 MHF licences covering 38 licensed sites. The number of employees working at these facilities ranges from between 10-20 and 600+. Assuming an average of 300 employees per facility, the total number of employees is estimated at 11,400.

16.3 Objectives of regulation

The primary purpose of the proposed MHF Regulations is to prevent major incidents from occurring at MHFs by prescribing duties to ensure MHF operators have the necessary systems, controls and procedures in place to ensure safe operation of the MHF.

16.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for MHFs are discussed in this section. These options were tested by WorkSafe and the MHFs SRGs and assessed against the aims of the review process outlined in Section 1.3. The MHFs SRG consisted of employee and employer representatives with expertise in this topic area and the MHFs SRG (Government and Emergency Services) consisted of emergency services and employee and employer representatives as detailed in Appendix B.

16.4.1 Policy proposals under Option 2- select improvement changes

16.4.1.1 Update the hazardous materials and thresholds listed in Schedule 9 of the OHS Regulations

Under the OHS Regulations, the term 'major hazard facility' is defined by reference to the hazardous materials and thresholds set out in Schedule 9. As such, the content of Schedule 9 defines the scope of Part 5.2 of the OHS Regulations.

Schedule 9 of the current OHS Regulations has not been reviewed since the introduction of the MHF Regulations in 2000. The threshold quantities in the current Regulations are based on EU quantities determined for similar MHF-type regulation developed in response to the Seveso disaster in 1976. At the time the Victorian regime was created, the EU position was in its second iteration of the regulation, known as the Seveso Directive Version II (Seveso II). The Seveso directive was revised in 2012, creating what is known as 'Seveso III'. A wide range of changes have been created through Seveso III, including:

- New material thresholds based on improved safety knowledge and learnings from various incidents
- Transition to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) published by the United Nations in 2009.

These changes have been considered in the review of Schedule 9, which has also taken into account specific local conditions. It is proposed to update the hazardous materials and corresponding thresholds in Schedule 9 to ensure the current state of knowledge of risk associated with the mass storage of hazardous materials is reflected in the regulations.

16.4.1.2 Simplified notification requirements

Currently, the OHS Regulations require an operator of a facility at which Schedule 9 materials are present (or likely to be present) in a quantity exceeding ten per cent but less than the material threshold to notify WorkSafe. WorkSafe may determine a facility that has notified the presence of materials below the threshold to be a MHF.

It is proposed to remove the upper limit on the quantity required for notification. That is, facilities holding Schedule 9 materials in quantities exceeding ten per cent of the material threshold would have to notify WorkSafe (unless they are already registered or licensed).

Where a facility has materials present (or likely to be present) in a quantity exceeding the threshold, they fall within the definition of a MHF and must be registered or licenced. A person can apply for registration where they intend to operate a facility holding Schedule 9 materials exceeding the threshold.

Under the current provisions, a facility that holds Schedule 9 materials exactly at their threshold amount is not captured by the Regulations. That is, such a facility would technically not have to notify WorkSafe, would by definition not be an MHF and therefore not have to be registered or licenced. It has also been noted that a facility holding materials above threshold is not technically required to notify WorkSafe of this fact, although it would have to be registered or licensed in order to operate.

The proposed change simplifies the notification requirements.

16.4.1.3 Allow operators increased flexibility in sending Safety Case updates to WorkSafe

Currently an operator of a MHF must review and revise the Safety Case in response to specified triggers. As soon as reasonably possible after any revision, the operator must provide a copy of the revised Safety Case to WorkSafe. A change is proposed to allow operators more flexibility in providing revised information to WorkSafe following a review of the Safety Case. The proposed change would allow operators to provide details of the changes made to the Safety Case, rather than the entire revised Safety Case. An operator could still provide the entire revised Safety Case by choice, and would be required to do so upon a request by WorkSafe.

16.4.1.4 Require the inclusion of seismic data in Safety Cases

Seismic activity can be caused by earthquakes or mining activity and can affect the likelihood or consequences of a major incident at an MHF. It appears that seismic activity in Victoria has increased in recent years, resulting in new regions in Victoria being placed on the Australian Earthquake Hazard Map.

It is proposed to require the inclusion of seismic data in Safety Cases where relevant to the risk of a major incident at a MHF.

16.4.1.5 Remove prescriptive demographic information requirements

It is proposed to remove the requirement for demographic information to be presented in a graphical format in a Safety Case, although operators can continue to present the

information in this way if they wish. This change would allow more flexibility as to how operators could provide this information, and potentially reduce the regulatory burden.

16.4.1.6 Require MHF operator to provide parts of the final emergency plan relating to offsite consequences to municipal councils in the local area

Currently, the Regulations specify that MHF operators must prepare emergency plans in conjunction with:

- Emergency services responsible for the area where the MHF is located
- In relation to offsite consequences of a major incident, municipal councils in the area occupied by the local community.

After preparing an emergency plan an operator must keep a copy at the facility for use by consulted emergency services, inform emergency services of its location, and forward them a copy of the plan. However, there is no equivalent requirement to make available, or provide a copy of, the emergency plan to municipal councils.

It is proposed to amend the Regulations to require operators to provide relevant parts of the emergency plan to municipal councils. This is intended to improve safety standards by assisting municipal councils to be prepared, and respond more quickly, in the event of a major incident.

16.4.1.7 Require that emergency plans include measures for the protection of emergency personnel

It is proposed to amend Schedule 11 to impose an express requirement on an operator of a MHF to consider the protection of emergency services personnel when preparing emergency plans. The proposed change is intended to ensure that the potential impact of a major incident on first responders is planned for as part of the preparation and implementation of the facilities' emergency plan.

16.4.1.8 Remove requirement to provide descriptions of certain policies and procedures in the Safety Management System

It is proposed to amend the OHS Regulations to remove the requirement to provide descriptions of certain policies and procedures in the Safety Management System (SMS). Operators are effectively required to include full safety principles and procedures in the SMS due to the operation of the core SMS obligation at r. 5.2.5(3) of the Regulations. It is considered that removing the need to provide a description or statement of these procedures or principles as well as the procedures/principles in full may lessen the regulatory burden for operators by providing more flexibility about how information is presented.

16.4.2 Other changes considered

16.4.2.1 Suitability of facility operator

Under the WHS requirements, the operator of a MHF, cannot operate as a determined MHF (similar to a registered MHF in Victoria) unless and until the facility is licensed if the operator is determined not to be a 'suitable person'. In contrast, under the OHS Regulations

the suitability of the operator only becomes relevant at the point the operator applies for a licence. Consideration was given to adopting the WHS approach and allowing WorkSafe to determine that the operator of an MHF, or proposed MHF, is a 'suitable person' to operate the MHF.

However, it was considered that the WHS approach would significantly increase the regulatory burden on prospective operators at an earlier stage in the process, and that the existing system of MHF registration remains appropriate in Victoria at this time. The purpose of the registration period is to allow facility operators time to develop a Safety Case and apply for a licence to operate a MHF. Registered facilities remain subject to Part 5.2 of the OHS Regulations during this time, although they only need to comply with Divisions 3, 5 and 10 'so far as reasonably practicable'. New operators can use the registration period to ensure they have the necessary systems and processes in place to comply with Part 5.2 of the OHS Regulations and satisfy WorkSafe that they are a suitable person to be granted a MHF licence.

16.4.2.2 Greater focus on security requirements

The WHS MHF Regulations have a greater focus on security issues when compared to the OHS Regulations. Consideration was given to aligning with the model WHS Regulations and increasing the focus on security requirements for MHFs in Victoria. However, it is proposed to maintain the current approach. While the increased emphasis on security within the model WHS Regulations may appear to create a higher safety standard, it would also increase the regulatory burden on operators – in particular as a result of the broader content requirements for the Safety Case and Safety Case outline.

Further, unlike some WHS states and territories, Victoria has terrorism legislation in place which applies to some higher security risk MHFs. The *Emergency Management Act 2013* covers some of the additional security requirements, under duties to prepare, update and audit risk management plans for infrastructure. Increasing regulation for security would therefore represent duplication of duties for facilities deemed critical infrastructure under this Act and is not warranted at this time.

It is considered that the issue of security at MHFs is sufficiently covered by the existing OHS Regulations and *Emergency Management Act 2013*. Where a security issue could cause, or contribute to causing, a major incident, it would need to be identified under r. 5.2.6, and appropriate risk control measures put in place under r. 5.2.8. The relevant risk control measures would then need to be addressed in the SMS (r. 5.2.5), and described in the Safety Case (r. 5.2.15).

16.4.2.3 Variable notification triggers

Under the OHS Regulations, notification is required where materials are present in a quantity exceeding ten per cent of their threshold quantity. Consideration was given to adopting an approach similar to that set out in the Seveso III Directive and, rather than adopting a single value for notification requirements, specifying the quantity at which notification is required for different materials.

However, it was proposed to maintain the current approach in Victoria. While this approach set out in the Seveso III Directive would mean that notification requirements may be better

aligned with the risk profile of a particular substance, the variable notification levels also make complying with the duty to notify more complex.

The different approach adopted under Seveso can be partially distinguished from Victoria's approach by the fact that under Seveso, facilities required to notify their regulator (known as "Tier 2" or "lower tier" facilities) are also required to develop and implement a Major Accident Prevention Policy that is proportionate to the risks posed by the quantity of materials present on site. Further, the regulators in EU member states are required to assess the presence of lower-tier establishments to determine if their proximity to other lower and upper-tier establishments increases the risk of a major accident. In those circumstances, the regulators are also obliged to undertake inspections of both upper and lower tier establishments at intervals no longer than one and three years respectively.

The substantive duties associated with notification under the Seveso system justify the application of different threshold levels for different substances, depending on their risk profile. In contrast, under the OHS Regulations, notification in itself creates no substantive obligation on duty holders. Once a facility operator has notified, and assuming the site is not determined to be an MHF, then no further action is required by the site unless there is a change to the information originally notified. The safety value of notification rests with the actions that WorkSafe takes upon receiving such notification.

16.4.2.4 Communication with health care providers

Consideration was given to expanding Schedule 11 to require emergency plan to provide for the allocation of responsibility for establishing communication with relevant hospitals and medical centres and providing health information following an incident. This was considered due to a concern that hospitals and other medical facilities are not always given enough information to know how to treat patients in the event of an incident.

However, it was proposed to maintain the current approach in Victoria. It was considered that requiring operators to provide this type of assistance after the incident has occurred is beyond the scope of the MHF Regulations. It was noted that operators are already required to provide detailed information to the local community. This includes the means by which the local community will be notified of a major incident in the event of one occurring, and the action that members of the local community should take (in accordance with the emergency plan) should a major incident occur. More specific information about communicating with health providers and providing health information following an incident may be included in guidance.

16.5 Assessment of options

16.5.1 Option 1 – remake existing regulations

Under Option 1, 'Part 5.2 - MHF' would be re-made in its current form. This would effectively mean the continuation of the existing requirements for another ten years.

16.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with obligations applicable to MHFs in the OHS Act and Regulations is projected to be \$10 million per year in 2017. Of this total cost, approximately \$1 million is attributable to the OHS Regulations, representing 0.03 per cent of the total costs of the OHS Regulations. Based on the results on the interviews and survey, these costs accrue to the manufacturing (57%) and transport, postal and warehousing sectors (43%).¹⁵¹ However, it is noted that businesses in other sectors also face costs associated with these requirements.

Of those that reported OHS Act and Regulation compliance costs associated with the operation of MHFs, the average cost was \$263,859 per business per year with estimates ranging between \$58,100 and \$889,200).¹⁵² The drivers of this cost were safety assessment of major hazards (26%), Safety Case requirements (24%), Safety Management System requirements (21%), licencing and registration requirements (18%) and emergency planning (11%). When broken down by business size, the average cost was \$145,748 for small businesses, \$88,195 for medium businesses (between \$77,599 and \$98,792) and \$420,338 for large businesses (between \$58,100 and \$889,200).¹⁵³ Note that the estimate for small businesses is based on only one observation so no range is provided.

16.5.1.2 Benefits

The primary benefit associated with the MHF Regulations is the reduction in the risk of major incidents occurring at MHFs and the reduction in the severity of consequences in the event that an incident does occur. Based on the total cost to society associated with fatalities, it is possible to estimate the number of fatalities that would need to be prevented in order for the total quantified benefits of prevention of a major incident to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that one fatality every four years from a major incident at a MHF would need to be prevented in order for the benefits of the MHF Regulations to equal the compliance costs to Victorian businesses, as shown in Table 16.1. Given the potential for fatalities if a major incident was to occur at an MHF, WorkSafe considers it feasible and reasonable that the benefits of the MHF Regulations are greater than the compliance costs.

¹⁵¹ Given the small sample size relative to the overall number of businesses across the Victorian economy, these estimates of the split in total costs by industry are illustrative only.

¹⁵² Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all.

¹⁵³ Note that these estimates are based on a small sample of MHF operators so the comparison across different businesses sizes should be interpreted with caution – particularly the result for medium-sized businesses.

Table 16.1: Break-even analysis – MHFs

Prevented cost to employees and society per fatality ¹	\$1,003,504
Break-even number of fatalities per year ²	0.24
Break-even number of cases as a % of employees at risk ³	0.006%

Source: Deloitte Access Economics analysis.

Notes: Figures are in 2015 prices. ¹Based on Victorian Government guidance on the value of a statistical life, which is \$3.5 million in 2007 dollars (Department of Treasury and Finance, (2013), Economic Evaluation for Business Cases, Melbourne). This estimate has been inflated to 2015 dollars. ²Total compliance cost to Victorian businesses divided by the prevented cost to employees and society per fatality. ³Calculated as a ratio of the break-even number of cases of injury/illness per year to the estimated number of employees at risk of this hazard (see Table 3.2).

16.5.2 Option 2 – select improvement changes

A number of changes are proposed to the MHF Regulations under Option 2. Based on a review of the proposed changes and subsequent discussions with WorkSafe, it was considered that the proposal to simplify notification requirements would not result in any substantive quantifiable costs or benefits to employers. From a qualitative perspective, this change will clarify notification requirements and reduce uncertainty to business.

In relation to the other proposed changes, it was considered that these might result in costs or cost savings to business. These proposals are discussed below in the following order:

- Update the hazardous materials and thresholds listed in Schedule 9 of the OHS Regulations
- Allow operators increased flexibility in sending Safety Case updates to WorkSafe
- Require the inclusion of seismic data in Safety Cases
- Remove prescriptive demographic information requirements
- Require MHF operator to provide parts of the final emergency plan relating to offsite consequences to municipal councils in the local area
- Require that emergency plans include measures for the protection of emergency personnel
- Remove requirement to provide descriptions of certain policies and procedures in the Safety Management System.

16.5.2.1 Update the list of dangerous materials listed under Schedule 9 of the OHS Regulations

This proposal has the potential to impose additional compliance costs on new and existing MHF operators. Existing MHF operators may face additional compliance costs in the event that they need to review calculations, documentation and risk control measures as a result of the proposed changes to Schedule 9 materials and thresholds. In addition, there is the potential for additional facilities to fall within the definition of a MHF, meaning operators of these facilities would become subject to the requirements of the MHF Regulations for the first time. However, there aren't any known additional facilities that would be captured as a result of the proposed changes.

This proposal also has potential benefits including improved safety for employees and communities living near MHFs as a result of ensuring that the application of the OHS

Regulations is based on Schedule 9 materials and thresholds that better reflect safety risks. In addition, some existing MHF operators that hold materials proposed to be removed from Schedule 9, or for which increased thresholds are proposed, should see compliance costs reduced.

The costs and benefits of this proposal are not quantified in this RIS. There are potential savings from MHFs that hold materials that are either below the increased threshold or are proposed to be removed from Schedule 9. There are also potential costs for businesses that would fall within the MHF regime under the changed thresholds, although no such businesses have been identified.

16.5.2.2 Allow operators increased flexibility in sending updates to Safety Cases

Of the six businesses that were asked about the impacts of this proposal in the one-to-one interviews, one business said that it would result in cost savings and five said that it wouldn't. The one business estimated the annual cost saving from allowing operators increased flexibility in sending updates to Safety Cases at \$3,752.

Assuming the results of the one-to-one interviews are broadly representative this change would impact one sixth (16.7%) of MHFs. Given that there are 38 MHFs¹⁵⁴, it is estimated that this proposal would result in total savings of \$23,761 relative to Option 1, noting that this estimate is indicative only.

16.5.2.3 Require the inclusion of seismic data in Safety Cases

Of the six businesses that were asked about the impacts of this proposal in the one-to-one interviews, one said that it would result in additional costs, two said that it wouldn't and three were unsure of any potential additional cost. The one business estimated the annual cost from requiring the inclusion of seismic data in Safety Cases at \$2,385.

Assuming the results of the one-to-one interviews are broadly representative (and excluding those that were unsure), this change would impact one third (33.3%) of MHFs. Given that there are 38 MHFs¹⁵⁵, it can be estimated that this proposal would result in total additional cost of \$30,207 relative to Option 1, noting that this estimate is indicative only.

16.5.2.4 Remove prescriptive demographic information requirements

Of the six businesses that were asked about the impacts of this proposal in the one-to-one interviews, three were able to estimate the current cost of presenting demographic information in a graphical format, the other three were unsure. These three businesses had updated demographic information in their Safety Case approximately 1.25 times in the last five years on average. On the basis of the estimates provided, the average cost of presenting demographic information graphically was \$112 per update. When accounting for the fact that updates occur 1.25 times every five years, the annualised cost can be estimated at \$28 per MHF operator.

¹⁵⁴ WorkSafe data

¹⁵⁵ WorkSafe data

Given that there are 38 MHFs¹⁵⁶, it can be estimated that this proposal would result in total cost savings of \$1,064 relative to Option 1, noting that this estimate is indicative only.

16.5.2.5 Require MHFs to provide parts of the final emergency plan relating to offsite consequences to municipal councils in the local area

Of the six businesses that were asked about the impacts of this proposal in the one-to-one interviews, four said that it would result in additional costs and two said that it wouldn't. On the basis of the estimates provided, the average annual cost of requiring MHFs to provide parts of the final emergency plan relating to off-site consequences to municipal councils in the local area, including time to extract sensitive information, can be estimated at \$1,708.

Assuming the results of the one-to-one interviews are broadly representative, this change would impact two thirds (66.7%) of MHFs. Given that there are 38 MHFs¹⁵⁷, it can be estimated that this proposal would result in total additional costs of \$43,262 relative to Option 1, noting that this estimate is indicative only.

One business questioned the council's role in emergency planning, given that they already provide some information to Municipal Emergency Response Officers. They were concerned about the confidentiality of information currently provided to councils, including the effect of Freedom of Information (FOI) requests, and viewed this proposal as posing further security concerns given the risk of documents provided to councils 'falling into the wrong hands'.

16.5.2.6 Introduce a new requirement to require that MHF operator emergency plans include measures for the protection of emergency personnel

Of the six businesses that were asked about the impacts of this proposal in the one-to-one interviews, three said that it would result in additional costs, one said that it wouldn't and two were unsure. Based on the estimates provided, the average annual cost associated with introducing a new requirement that emergency plans include measures for the protection of emergency personnel can be estimated at \$8,189.

Assuming the results of the one-to-one interviews are broadly representative (and excluding those that were unsure), this change would impact three quarters (75%) of MHFs. Given that there are 38 MHFs¹⁵⁸, it can be estimated that this proposal would result in a total cost of \$233,378 relative to Option 1, noting that this estimate is indicative only.

In general comments, one business objected to this proposal stating that control of a site should be handed to emergency services in the event of an emergency, and they should protect their own employees; this shouldn't be responsibility of the company located on the site. Another noted that they needed more information on what would be expected, particularly as control of the site typically gets handed over to emergency services in the event of an incident.

¹⁵⁶ WorkSafe data

¹⁵⁷ WorkSafe data

¹⁵⁸ WorkSafe data

16.5.2.7 Remove requirement to provide descriptions of certain policies and procedures in the Safety Management System

Of the six businesses that were asked about the impacts of this proposal in the one-to-one interviews, two said that it would result in a cost saving and four said that it wouldn't. Based on the two estimates provided, the average annual cost saving from removing the requirement to provide descriptions of certain policies and procedures in the Safety Management System can be estimated at \$2,357.

Assuming the results of the one-to-one interviews are broadly representative, this change would impact one third (33.33%) of MHFs. Given that there are 38 MHFs¹⁵⁹, it can be estimated that this proposal would result in total savings of \$29,854 relative to Option 1, noting that this estimate is indicative only.

In general comments, one business noted that they would still have to provide descriptions of policies and procedures for other business requirements including accreditations and other industry and customer requirements. A second business said that any cost saving would be negligible.

16.5.2.8 Summary

The above analysis suggest that the proposed changes to the MHF Regulations under Option 2 would result in costs of \$306,848 per year in annualised terms as a result of the proposals to: require MHFs to provide parts of the final emergency plan relating to offsite consequences to municipal councils in the local area, require the inclusion of relevant seismic data in Safety Cases, and require that emergency plans include measures for the protection of emergency personnel.

The proposed changes would also be expected to result in cost savings of \$54,679 per year as a result of the proposals to: remove prescriptive demographic information requirements, allow operators increased flexibility in sending updates to Safety Cases, and removing the requirement to provide descriptions of certain policies and procedures in the Safety Management System. The proposal to simplify notification requirements is not anticipated to result in any substantive quantifiable costs or benefits to employers.

It is possible that the proposal to update the hazardous materials and thresholds listed in Schedule 9 of the OHS Regulations will result in costs to some businesses and benefits to others. However, this was not explored as part of the consultations for reasons discussed above.

Overall, the proposed changes to the MHF Regulations are estimated to result in a total net cost of \$252,168 per year relative to Option 1.

The above analysis also suggests that the proposed changes may result in other nonfinancial benefits including better safety outcomes, reduced unnecessary regulatory prescription, and improved clarity of regulation.

¹⁵⁹ WorkSafe data

16.6 Impact on small business and competition assessment

Of the businesses consulted in relation to the proposed changes under Option 2, only one had less than 20 employees and this company was not impacted by the majority of the proposed changes. More generally, the overall estimated cost of these proposals is considered to be relatively minor. As such, it is not considered that there would be any material impact on small business and competition as a result of these proposals.

17 Mines

17.1 Background

Under the OHS Regulations, mines are defined in the broadest sense and include:

- Workplaces where work is being done under a mining licence
- Workplaces where exploration in the form of underground work or drilling from the surface for coal-bed methane is being done under an exploration licence
- Those parts of a tourist mine that are underground and all infrastructure and plant associated with the underground workings.

Mines are complex, dynamic and unpredictable workplaces. Working in fragile, heterogeneous and inherently unstable physical environments creates a workplace unlike most other sectors and gives rise to very particular risks to health and safety. Certain mining practices necessarily incorporate hazardous elements, such as the use of explosives and large plant and equipment, creating the potential for multiple fatalities.

Victoria is one of the smaller mining states and territories, with the majority of mining operations being carried out in NSW, Queensland and WA. Mining contributes around 2 per cent to Victoria's economy.¹⁶⁰ In Victoria there are approximately:

- 135 open cut mines
- 87 underground mines.

Estimates from the Department of Economic Development, Jobs, Transport and Resources in December 2015 indicate around 883 extractive (quarrying) sites, and 126 exploration sites.

The incidents particular to the mining sector include low-frequency, high consequence events (such as mining wall and tunnel collapses, mine fires or explosions and inundation events). However, the sector also experiences more common injuries/incidents (such as traffic management incidents, trips and falls, and hazardous manual handling).

In conjunction with the general duties under Victoria's OHS Act and Regulations, 'Part 5.3 – Mines' outlines specific duties to secure the health and safety of persons in mines. Mine operators are the main duty holders under this part, which refers to the employer who has management or control of the mine. All mine operators are required to adopt a risk-management approach to control risks associated with mining hazards, comprising of hazard identification, risk assessment and risk control. There are further regulatory duties associated with 'prescribed mines' (those which are underground, or determined by the regulator to be a prescribed mine), and for all 'major mining hazards' identified at a

¹⁶⁰Mining's share of Victoria's total gross value added in 2014-15 based on Deloitte Access Economics analysis of ABS Australian National Accounts data for 2014-15.

prescribed mine. The Mines Regulations also place duties on employees to ensure their own safety.

17.2 Nature and extent of the problem

17.2.1 Description of problem

Work in the mining industry involves a range of risks due to the varied nature of the tasks that are carried out the environment in which they are carried out. Fatalities and injuries most often occur as a result of: being struck by a moving object, vehicle accidents, being crushed between moving equipment and stationary objects; explosions and falls from height. Other risks include fires, plant, noxious or asphyxiating gases, manual handling and poisoning risks involved in working with certain minerals.

The causes of mining hazards are often multi-factorial and not readily apparent making it difficult to assess risk accurately and comprehensively. Unsafe execution of hazardous mining activities (including the use of explosives and large plant) can have fatal consequences.

The mining industry in Australia has a fatality rate almost twice the Australian national average for other industries. The history of mining disasters in Australia suggests that reliance on general duties and other non-industry specific measures alone is insufficient to achieve an acceptable standard of health and safety in the sector.

The OHS Act places obligations on employers and other specified individuals to uphold general duties of care with regard to the health and safety of employees and members of the public. It includes a duty on employers to provide and maintain for employees a working environment that is safe and without risks to health so far as reasonably practicable. However the Act does not specify what a duty holder must do to comply with the general duties in respect of mines.

Mine Regulations supplement the general duties under the OHS Act by:

- Prescribing mandatory risk control measures or prohibitions A mine operator must ensure that every winding system for a shaft at a mine has certain attributes (r. 5.3.26), and must not allow the use of an internal combustion engine or polyurethane foam underground
- Prescribing mandatory processes to be followed for example, mine operators must adopt risk control measures by applying a hierarchy of control (r. 5.3.8) and Subdivision 3 prescribes specific content requirements for a Safety Management System, Safety Assessment, Emergency Plan and plan of the mine
- Placing obligations on employers to keep records for example, mine operators must obtain a report of health surveillance (r. 5.3.15), keep a record of monitoring and testing a ventilation system (r. 5.3.32) and record training provided to an employee (r. 5.3.41).

The prescribed processes and mandatory risk control measures in the regulations require operators to work through a comprehensive assessment of all the risks and hazards in the mine and to put in place risk control measures. Comprehensive risk control measures will reduce the likelihood of mine-related injuries, illnesses, fatalities and catastrophic events and provide protections for employees, contractors and mine operators. The use of specific obligations enables an employer and other duty holders to establish compliance and WorkSafe to take efficient enforcement action where there is non-compliance.

17.2.2 Incidence and trends

There has been one recorded fatality in the Victorian mining sector since 1 July 2007, although a series of major incidents have occurred with the potential to have caused significant loss of life.

Between 1 July 2007 and 30 June 2015 there were 492 compensation claims attributed to the mining industry (approximately 0.04 per cent of all standardised claims over this period).¹⁶¹ Working with plant (such as heavy machinery, mobile plant and transport, powered equipment) was the most common cause of injury. Chart 17.1 shows the number and incidence of standardised claims attributed to the mining industry on an annual basis. As indicated, the number and incidence of claims decreased from 2011-12 and has stabilised in recent years.





Source: WorkSafe data.

Based on ABS data, there were approximately 4,218 people employed in the mining industry in Victoria in 2014-15.¹⁶² This is an increase from 2007-08 when there were approximately 4,000 people employed in these industries in Victoria.

¹⁶¹ WorkSafe data.

¹⁶² ABS, (2015), *Labour Force, Australia, Detailed, Quarterly* (ABS release no: 6291), November 2015

17.3 Objectives of regulation

The primary purpose of the proposed Mines Regulations is to prevent injuries, illnesses and fatalities and catastrophic events from occurring at mines sites by prescribing risk control and safety management process to be followed.

17.4 Identification and consideration of feasible options

During the development of this RIS, WorkSafe considered a broad range of options to achieve the objectives in Chapter 3 and ultimately to reduce the incidence of work related injuries, illnesses and fatalities. This analysis resulted in three broad options being considered in this RIS as discussed in Chapter 4.

The specific options that were considered for mines are discussed in this section. These options were tested by WorkSafe and the Mines SRG and assessed against the aims of the review process outlined in Section 1.3. The Mines SRG consisted of employee and employer representatives with expertise in this topic area.

17.4.1 Policy proposals under Option 2- select improvement changes

17.4.1.1 Consolidate list of mining-specific hazards (r.5.3.2)

Regulation 5.3.2 sets out an exhaustive list of mining-specific hazards which the mine operator must first identify. It is proposed to consolidate the list of hazards to align with WHS terminology for principal mining hazards and to retain the remaining OHS mining hazards-types. Maintaining the scope of the OHS mining hazards will ensure that flow-on duties are not diminished. The following changes are proposed:

- r. 5.3.2(1) (a) ground control; (b) slope stability; (c) rock falls; (d) rock bursts; (e) susceptibility to seismic activity, will be replaced with 'ground or strata failure, including ground control, slope stability, rock falls, rock bursts, susceptibility to seismic activity'
- r. 5.3.2(1)(f) 'inrush of water or semi-solids' will be replaced with 'inundation or inrush of any substance'
- r. 5.3.2(1)(g) 'shaft sinking and winding' will be replaced with 'Mine shafts and winding operations'
- r. 5.3.2(1)(j) 'mine fires or explosion' will be replaced with 'fire or explosion'
- r. 5.3.2(1)(m) 'airborne dust' will be replaced with 'air quality **including** dust or other airborne contaminants'.

The broadening of r.5.3.2(1)(m) 'airborne dust' to 'air quality or dust or other airborne contaminants' is considered a proportionate response to the risk as it will improve safety outcomes. Including air quality and other airborne contaminants as a mining hazard-type more accurately encapsulates mining hazards than airborne dust. For example, typical gases encountered and monitored for in Victorian underground (and sometimes open cut) mines which directly affect air quality include, oxygen, nitrogen, hydrogen, carbon dioxide,

carbon monoxide, methane, hydrogen sulphide, sulphur dioxide, nitrogen dioxide and ammonia.

17.4.1.2 Increase flexibility with which persons aged under 18 can work in and around mine sites

Currently under r. 5.3.11, no person under the age of 16 can be employed at a mine and no employee under the age of 18 can work underground. To align with International Labour Organisation requirements and the WHS Draft Mining Part equivalent, it is proposed to reframe the duty to ensure that:

- No person under the age of 16 years is engaged to carry out work in any open cut workings or in an underground mine, and
- No person under the age of 18 years is engaged to carry out work in an underground mine, unless the person is over the age of 16 years and is an apprentice or trainee under direct supervision in relation to the work.

This proposal allows a slight increase in employment opportunities for young people and aligns with International Labour Organisation requirements. The proposal will also align with model WHS Regulations.

17.4.1.3 Increase flexibility of communication requirements

It is proposed to amend the current duty that all mining operators must ensure, so far as is reasonably practicable, that there are available means for 'constant' communication with an employee who is working alone at an isolated location at a mine, so that the operator must instead provide an 'effective' means of communication. The aim of this proposal is to improve the flexibility and risk proportionality of communication requirements in mines.

17.4.1.4 Amend the requirement that prescribed mining operators ensure air is maintained at a safe level 'throughout the mine'

Under r. 5.3.30(1), the operator of a prescribed mine must "ensure that the air throughout the mine is maintained at a safe level." It is proposed to amend the requirement that mining operators ensure air is maintained at a safe level 'throughout the mine' to only 'areas in the mine in which persons work or travel'. This change is intended to facilitate compliance by imposing a more practical standard.

17.4.1.5 Require operator of prescribed mine to provide relevant parts of emergency plan to municipal council involved in the preparation of the plan

Currently, the Regulations specify the operator of a prescribed mine must prepare emergency plans in conjunction with:

- Emergency services responsible for the area where the mine is located
- In relation to major mining hazards that could detrimentally affect the health or safety of people in the area surrounding the mine, the municipal council in that area.

After preparing an emergency plan the operator of a prescribed mine must keep a copy at the mine for use by consulted emergency services, inform emergency services of its location, and forward them a copy of the plan. However, there is no equivalent

requirement to make available, or provide a copy of, the relevant parts of the emergency plan to the municipal council in the area.

It is proposed to amend the Regulations to require the operator of a prescribed mine to provide relevant parts of the emergency plan to municipal councils. This is intended to improve safety standards by assisting municipal councils to be prepared, and respond more quickly, in the event of an incident affecting the health or safety of people in the area surrounding the mine.

17.4.2 Other changes considered

17.4.2.1 Communication in respect of a shift changeover (r. 5.3.19)

Consideration was given to removing the requirement that a shift supervisor provide a written report on the state of the mine workings at shift changeover. It was proposed to remove the reference to "written" to provide more flexibility as to how to comply with this provision. However, it was proposed not to remove this requirement on the basis that the written report requirement is standard across the industry, and easy to comply with. It was considered that removing this requirement may reduce safety standards for mines workers.

17.4.2.2 Quarries

Consideration was given to expanding the definition of a "mine" to include quarries. Quarries extract or remove stone from land for sale or commercial use. It was considered that expanding the definition of mine in this way would involve significant additional costs for quarry operators, and quarries do not typically give rise to the risks characteristic of underground and remote mining. Ultimately, it was considered that the risks in quarries are adequately captured by the plant and construction regulations, and the general duties under the OHS Act. It was considered that the increased regulatory burden that quarries would face if covered by the Mine Regulations was not proportional to the risk characteristics of quarries. On this basis, it was determined not to expand the definition to include quarries.

17.4.2.3 Prescribed mines

Under the OHS Regulations, there are additional duties for more hazardous (prescribed) mines. Consideration was given to removing the prescribed mine threshold and applying Part 5.3 to all mines equally. However, it was proposed not to remove the prescribed mine threshold as it was considered that it appropriately provides for a tiered, risk-based approach to distinguish between high-risk mines and lower-risk mines.

17.4.2.4 Risk assessment for mining hazards (r. 5.3.7)

Consideration was given to removing the requirement to undertake a mandatory risk assessment for all mining hazards to reduce regulatory burden and focus the regulations on the identification and control of risk. However, it was proposed not to remove this requirement as it may reduce safety standards. The Hazelwood Inquiry, found that the failure to conduct a proper risk assessment meant that an opportunity to avoid or reduce the severity of the 2014 mine fire was lost.

17.4.2.5 Emergency plans

Consideration was given to mandating emergency plans for all mines, similar to the draft WHS mine regulations. Currently emergency plans are only mandated for prescribed mines, as these are considered the highest risk.

It was determined that the risk profile of non-prescribed mines did not warrant the creation of a mandatory requirement for all mines to have emergency plans and emergency testing requirements.

17.5 Assessment of options

17.5.1 Option 1 – remake existing regulations

Under Option 1, 'Part 5.3 - Mines' would be re-made in its current form. This would effectively mean the continuation of the existing requirements for another ten years. Under this scenario, the existing trend in mining industry claims experienced over the last decade would be expected to continue into the future.

17.5.1.1 Costs

Based on the results of the one-to-one interviews and web-based survey, the total cost of complying with mine-related obligations in the OHS Act and Regulations is projected to be \$24 million per year in 2017. Of this total cost, approximately \$4 million is attributable to the OHS Regulations, representing 0.1 per cent of the total costs of the OHS Regulations. As one would expect, these costs accrue to businesses in the mining industry.

Of those that reported OHS Act and Regulation compliance costs associated with the operation of mines, the average cost was \$210,672 per business per year with estimates ranging between \$11,821 and \$584,753.¹⁶³ The drivers of this cost were safety management system requirements (47%), emergency planning (23%), safety assessment of major mining hazards (13%), health surveillance (9%) and other requirements (8%). When broken down by business size, the average cost was \$11,821 for small mining businesses and \$310,097 for medium mining businesses (between \$35,441 and \$584,753), noting that there are only a small number of large employing mining businesses in Victoria and none of these participated in the one-to-one interviews.¹⁶⁴ Also note that the estimate for small businesses is based on only one observation so no range is provided.

17.5.1.2 Benefits

The primary benefit associated with the Mines Regulations is the reduction in injuries, illnesses, fatalities and catastrophic events at mine sites. Based on the total cost to society associated with mining industry compensation claims, it is possible to estimate the number

¹⁶³ Note that this is the estimated average cost across those that reported having costs in this area. The average cost across all businesses in the economy would be much lower as many would not face any costs at all. Further, this estimate may be understated due to the fact that large businesses are not represented in the sample. This is corrected for in the aggregated estimates.

¹⁶⁴ Note, however, that one large mining business participated in the web-based survey.

of cases that would need to be prevented in order for the total quantified benefits of prevention to society to be equal to the compliance costs to Victorian businesses.

Based on such an analysis, it is estimated that 11 cases of injury and illness at mine sites would need to be prevented per year in order for the benefits of the Mines Regulations to equal the compliance costs to Victorian businesses, as shown in Table 17.1. This represents 25 per cent of the total number of mines claims and fatalities in 2014-15. Put another way it would require the prevention of 27 injuries or fatalities for every 10,000 employees at risk of injury or fatality at mine sites.

WorkSafe considers it feasible and reasonable that the regulations would prevent the number of claims required for the benefits of the Mine Regulations to be greater than the compliance costs.

Total annual compliance cost to Victorian businesses in 2017 ¹	\$3,638,649
Average fully developed cost of claims ²	\$39,729
Prevented cost to employees and society per case of injury/illness ³	\$318,709
Break-even number of cases of injury/illness per year ⁴	11
% total claims in 2014-15 ⁵	25%
Break-even number of cases as a % of employees at risk ⁶	0.27%

Source: Deloitte Access Economics analysis.

Notes: All figures are in 2015 prices. ¹Data from the interviews and survey conducted for this RIS. ²WorkSafe data (see Table 3.2). ³Calculated by adding the average fully developed cost of claims (direct cost) to an estimate of the average indirect cost of claims based on Safe Work Australia estimates which suggests that indirect costs are 7.02 times direct costs (Safe Work Australia, August 2015, *The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community*, Canberra). ⁴Total compliance cost to Victorian businesses divided by the prevented cost to employees and society per case. ⁵Based on WorkSafe data (see Table 3.2). ⁶Calculated as a ratio of the break-even number of cases of injury/illness per year to the estimated number of employees at risk of this hazard (see Table 3.2).

Note that the comparison with the number of claims in 2014-15 may double count claims from other hazard areas such as plant. Further, this analysis does not take into account the cost of catastrophic events to employees and society more generally. For example, the cost of the Hazelwood coal mine fire that broke out in February 2014 has been estimated at over \$100 million to the Victorian Government, the local community and the operator of the mine.¹⁶⁵ It has also been found that the fire had a significant impact on the Latrobe Valley community, with people experiencing adverse health effects which may linger for an indeterminate period into the future.¹⁶⁶ It is not possible to quantify the average annual benefit from avoided catastrophic events, other than to say that these benefits may be significant. On that basis, the above break-even analysis may understate the benefits of the Mines Regulations.

¹⁶⁵ Hazelwood Mine Inquiry, (2014), *Hazelwood Mine Fire Enquiry Report*, Victorian Government Printer, Melbourne

¹⁶⁶ Ibid.

17.5.2 Option 2 – select improvement changes

17.5.2.1 Increase flexibility with which persons aged under 18 can work in and around mine sites

It is proposed to increase flexibility with which persons aged under 18 can work in and around mine sites.

Of the three mining business that were asked about the impacts of this proposal in the oneto-one interviews, only one said that they would consider employing a 16 or 17 year old at their mine in the future if they were permitted to do so. The business said they would consider employing two persons of this age and would do so under a trainee or apprenticeship arrangement. They also said that this would be beneficial to them. However, they were of the view that such benefits would be immaterial from a financial cost saving perspective.

17.5.2.2 Amend the requirement that prescribed mining operators ensure air is maintained at a safe level 'throughout the mine'

It is proposed to amend the requirement that mining operators ensure air is maintained at a safe level 'throughout the mine' to only 'areas in the mine in which persons work or travel'. This proposal is applicable to prescribed mines only.¹⁶⁷

Of the three mining business that participated in the one-to-one interviews, only one was a prescribed mine. This business estimated the annual cost of maintaining safe air levels throughout their mine to be approximately \$1.9 million. However, they were of the view that the proposed change would not result in any cost savings to their business.

17.5.2.3 Increase flexibility of communication requirements

It is proposed to amend the current duty that all mining operators must ensure, so far as is reasonably practicable, that there are available means for 'constant' communication with an employee who is working alone at an isolated location at a mine, so that the operator must instead provide an 'effective' means of communication.

Of the three mining business that were asked about the impacts of this proposal in the oneto-one interviews, two said that they currently face costs associated with maintaining 'constant' communication with employees working alone in isolated locations. The third mine did not face this cost. The average annual cost of maintaining constant communication was estimated at \$286,304, noting that this was based on an estimate of \$570,988 provided by a medium mining business and \$1,620 by a small mining business. The estimate provided by the medium sized business included the cost of an electrical team, training and maintaining phone lines are worked on constantly. However, only one of the two businesses that face these costs (the medium business) said that the proposed change would result in cost savings, adding that it would reduce their costs by 20 per cent. The other business was happy with the current approach.

¹⁶⁷ A prescribed mine is an underground mine, or a mine that is determined to be a prescribed mine by WorkSafe under r. 5.3.4, or a mine that is one of a class of mines that are determined to be prescribed mines by WorkSafe under r. 5.3.4.

When averaged across the two medium mining businesses consulted, the average saving per mining medium business can be estimated at \$57,099. Assuming the results of the one-to-one interviews are broadly representative and that this change would only impact medium and large mining businesses – of which there are approximately 50^{168} – it can be estimated that this proposal would result in total savings of \$2.9 million relative to the base case, noting that this estimate is indicative only.

17.5.2.4 Summary

The above analysis suggest that most of the proposed changes to the Mines Regulations under Option 2 would not result in any cost impacts on Victorian businesses, with the exception of the proposal to consolidate the list of 'major mining hazards'. It is estimated that this proposal could potentially impact 174 mine or exploration sites, noting that this estimate is indicative only. However, given the lack of estimates of the average cost per business associated with this proposal, it is not possible to estimate the total cost to the mining industry, other than to say that it could be substantial for some businesses.

On the other hand, the proposal to increase the flexibility of mine communication requirements is estimated to result in total savings to the mining industry of \$2.9 million relative to the base case, noting that this estimate is indicative only given the small sample size. Given the lack of cost data on the proposal to consolidate the list of 'major mining hazards', it is not possible to estimate the total net cost or benefit of the proposed changes to the Mines Regulations to the mining industry.

The above analysis also suggests that the proposed changes may result in some benefits including increased flexibility and greater alignment with the model WHS Regulations.

17.6 Impact on small business and competition assessment

In light of the above finding that the majority of the changes under Option 2 would not result in any costs impacts on mining businesses, it is not considered that there would be any substantial impact on small business and competition as a result of these proposals.

It is noted, however, that one business reported that they may potentially be impacted by the proposal to consolidate the list of 'major mining hazards'. This was a small business whereas the other two mining businesses interviewed were medium suggesting that this proposal may disproportionately impact small businesses. However, given that only a small number of mining businesses participated in the one-to-one interviews, it is not possible to draw a firm conclusion on this.

¹⁶⁸ ABS, 2015, *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014* (ABS release no: 8165.0), February 2015

18 Cost recovery and fee analysis

The purpose of this chapter is to:

- Assess the level of cost recovery under the OHS and EPS Regulations related to licensing, registration and exemption fees
- Propose options in relation to these fees.

Under the OHS and EPS Regulations, WorkSafe provides various licensing and registration services relating to: asbestos removal work; high risk work; hazardous substances; construction induction training; plant design registration; major hazard facilities; and prescribed equipment design registration. WorkSafe charges fees for those services (recoverable services), which were last set in the making of the 2007 OHS and EPS Regulations.

Analysis of fees and charges set out in the OHS and EPS Regulations differs from analysis of other parts of the Regulations, where it is the rationale for regulation that is being justified. While most of the fees proposed are not new, their impact must be considered in this RIS for the making of the 2017 OHS and EPS Regulations.

18.1 Cost recovery considerations

Cost recovery through fees occurs on the basis of a user-pays system, whereby those who utilise services are obliged to pay for the cost of those services, rather than having them funded by others e.g. from the workers compensation premium. Under full cost recovery, premium payers in general are not subsidising those who use the service for which costs are being recovered.

Cost recovery has the potential of advancing both equity and efficiency objectives, although in some cases these objectives may need to be balanced against each other. A requirement outlined in the *Victorian Guide to Regulation* and general government policy is that regulatory fees and user charges should be set on a full cost recovery basis to ensure that both efficiency and equity objectives are met.¹⁶⁹ Full cost represents the value of all the resources used or consumed in the provision of an output or activity. In particular:

- Full cost recovery promotes the efficient allocation of resources by sending the appropriate price signals about the value of all the resources being used in the provision of government goods, services and/or regulatory activity
- Full cost recovery ensures that those that have benefited from government-provided goods and services, or those that give rise to the need for government regulation, pay the associated cost. Those parties that do not benefit or take part in a regulated activity do not have to bear the costs.

¹⁶⁹ Government of Victoria, 2014, *Victorian Guide to Regulation*, Department of Treasury and Finance, Melbourne.

The principle of fully internalising the costs of regulation is supported by the Department of Treasury and Finance's *Cost Recovery Guidelines* (*Victorian Cost Recovery Guidelines*), which states that costs should be recovered directly where possible, "from those that benefit from, or whose actions give rise to the need for, the government good/service/activity".¹⁷⁰

The Victorian Guide to Regulation requires that, where regulations impose fees or charges, analysis of these regulations is aligned with the principles set out in the Victorian Cost Recovery Guidelines. The guideline identifies five key steps to cost recovery for fees RISs:

- Step 1 Identify the problem or issue
- Step 2 Specify desired objectives
- Step 3 Identify viable options to achieve the objectives
- Step 4 Assess the costs and benefits of the options
- Step 5 Identify the preferred option and describe its effect

18.2 Background

WorkSafe levies 18 types of fees under the existing OHS and EPS Regulations. The fees aim to recover WorkSafe's costs incurred from assessing applications to obtain or renew licences or registrations, or be exempted from certain regulations. Importantly, they do not seek to recover the broader costs to WorkSafe of enforcing regulations.

Some of these fees are levied on a per hourly basis capped at a maximum amount, while others are levied as a flat charge. This reflects that the assessment costs to WorkSafe can vary when comparing application types because the processing effort per application can either:

- Be standardised, whereby the same process is undertaken each time a licence application is assessed, and in some cases business rules allow the assessment to be automated for example, high risk work licence applications or renewals, or
- Fluctuate where the assessment process is complex and technical expertise is required to assess a licence application or renewal, or where the size of the assessment task differs for different applications for the same licence type- for example, major hazard facility licence applications or renewals.

In its 2014 *Review of Regulatory Efficiency and Cost Recovery*, the Victorian Competition and Efficiency Commission (VCEC) recommended that WorkSafe investigate the feasibility of the following cost recovery reforms:

- Restore the real value of OHS and EPS fees, and convert current fee amounts into fee units (to provide for automatic indexation)
- Fully recovering WorkSafe's administrative costs in assessing high risk work licence applications, and issuing construction induction training cards (as per the 2007 RIS)

¹⁷⁰ Department of Treasury and Finance, 2013, *Cost Recovery Guidelines*, January.

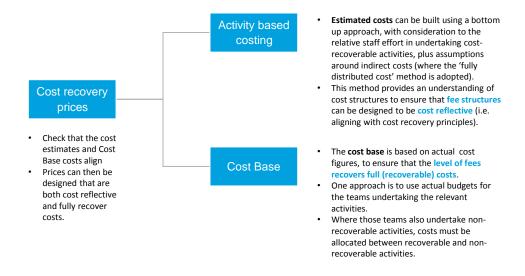
• Remove 'maximum payable' cap and fully recover all associated regulatory costs with respect to major hazard facility licences.

18.3 WorkSafe's recoverable costs

18.3.1 Cost recoverable activities

Deriving fees that align with cost recovery principles requires:

- Establishing a cost base to determine (or confirm) the level of fees to determine the degree to which fees recover costs
- An activity based analysis (where possible), to help determine fee relativities (for example, an activity that takes twice as long should have fees that are twice as expensive).



18.3.2 Cost base

WorkSafe has provided 2015-16 budgets (i.e. total expected costs) for the teams or divisions within WorkSafe which incur costs in assessing applications to obtain or renew licences or registrations, or be exempted from certain regulations – that is, those activities that are cost-recoverable under OHS and EPS Regulations. See Table 18.1.

Assuming that the budget remains static in real terms through to 2017-18, this would provide a cost base which we would reconcile against the activity based costing to determine the fee level.

Importantly, some WorkSafe teams and divisions undertake functions that are non-recoverable or not recovered from OHS and EPS licence fees, including:

- The Specialist Services division, which undertakes a broad range of activities that do not relate to the OHS or EPS licencing regimes
- The Major Hazards Facilities (MHF) team, which undertakes post licensing regulatory work
- The Licencing branch, which also undertakes Dangerous Goods Licensing.

Of activities undertaken by the **Licencing branch**, an estimated 97% of staff time is spent on OHS and EPS activities, and the remaining time is spent on Dangerous Goods Licences.

The **Specialist Services** division undertakes a broad range of activities, the majority of which relate to WorkSafe's regulatory role rather than the EPS and OHS licensing regimes. WorkSafe's regulatory role is funded through workers compensation premium revenue and other sources. These activities include:

- The **Occupational Hygiene team**, in addition to asbestos and scheduled carcinogens also regulates other occupational health hazards including lead, noise and confined spaces. The team also provides technical support for the development of compliance codes and other guidance materials.
- The Human Factors and Engineering team, in addition to the High Risk Work sub-team, includes sub-teams that undertake work in Ergonomics and organisational psychology that are non-recoverable under OHS or EPS licensing regimes.

The following **MHF** team activities are not recovered under OHS or EPS licensing regimes:

- Risk based post licencing oversight inspections
- Detailed targeted annual inspections.

These activities form part of Worksafe's regulatory role, ensuring that major hazard facilities are compliant with regulations and that the health and safety risks and risks to the public are being effectively managed under the licencing regime. This provides benefits to unrelated third parties in addition to the MHF operators themselves. A major incident at a MHF (e.g. an explosion) has the potential to cause serious injury to people both on-site and off. The community benefits from WorkSafe taking proactive steps (e.g. conducting regular inspections) to ensure appropriate safety measures are in place to prevent a major incident occurring.

Furthermore, charging operators for compliance activities such as site visits and inspections could make operators reluctant to cooperate with WorkSafe and encourage hostility during site visits. This would undermine WorkSafe's ability to fulfil its functions under s7 of the OHS Act - in particular, to monitor and enforce compliance with the Act and regulations (s7(1)(c)); and to monitor the operation of measures taken and arrangements put in place to ensure occupational health, safety and welfare (s7(1)(I)).

The table below compares the activity based cost estimates for WorkSafe's recoverable costs, with the budgets of the teams or divisions that undertake recoverable activities. The cost base for the relevant teams and divisions is around \$3.5 million higher than estimated costs for recoverable activities.

Worksafe confirmed that the difference between cost base and estimated costs of fees reflects activities that are:

- Recoverable under another licencing regime (Dangerous Goods)
- Activities unrelated to OHS or EPS licencing (such as Worksafe's regulator role) which have public good benefits and are therefore recoverable from Worksafe's broader revenue sources.

Area	Functions	2015-16 Total Budget (\$m)	Estimated recoverable costs (\$m)
Licencing team	Administrative part of licencing activities (including lost, stolen & destroyed documents ³)	4.462 ¹	
	HRW licences		3.950
Specialist services	Includes:	3.590	1.031
	Construction Induction cards compliance Audits		0.740
	Plant and Equipment Design review		0.212
	Assessment Asbestos licence applications		0.076
	Carcinogenic team (Occupational Hygiene team)		0.003
	Exemptions		0.165
Major Hazard Facilities	Major Hazard Facilities licencing	1.777	1.148
Total Cost Base		9.829 ²	6.293

Table 18.1: Cost Base compared to WorkSafe's estimated costs for recoverable activities

Notes: ¹Reflects 97% of the licencing Branch budget as Worksafe estimates that 97% of staff time is spent on OHS and EPS licences, and the remaining budget relates to administration of the Dangerous Goods licence regime. ²The cost base includes a number of activities that are not recoverable through WorkSafe fees. ³Lost stolen and destroyed documents relates to High Risk Work licences and Construction Induction Cards.

18.3.3 Methodology

WorkSafe's full annual costs of assessing licencing, registration and exemption applications has been estimated using the Full Distributed Costs methodology outlined in Victorian Cost Recovery Guidelines. This includes accounting for the total costs to WorkSafe, including direct (e.g. staff costs) and indirect costs (e.g. on-costs and overheads).

More specifically costs were estimated by WorkSafe by estimating the average time it takes WorkSafe staff for each activity type. Broken down, the approach taken to deriving revised fee values involves estimating the following assessment costs as outlined in the table below. Costs of any functions that are not a fundamental part of or directly related to the assessment process have been excluded from the estimated costs.

Table 18.2: Cost types

Cost type	Comments
A. Salary costs	
Licensing branch administrative and co	ompliance review
Licensing officer assessment	Includes average time/cost of a licensing officer processing new and renewal licence applications.
Quality assurance review	Includes average time/salary cost of a quality assurance review of the application assessment process undertaken.

Cost type	Comments
• Team leader review and sign off	Includes average time/salary cost of reviewing application assessment undertaken and approving the decision on the application.
Specialist/technical operational support	
Technical specialist review	Includes average time/salary cost of a technical/specialist review of the application.
Manager review and sign off	Includes average time/salary cost of reviewing technical review undertaken and recommendations to Licensing Branch for consideration.
B. Staff related on-costs	
On-costs incurred	Ratio supplied by Finance team and applied to staff costs to capture non-salary staff related costs including as superannuation, leave entitlements etc.
C. Other costs	
Operating expenses incurred	Ratio supplied by Finance team and applied to staff costs to capture operating costs including capital costs, accommodation, equipment etc.
 Outsourced/external provider services 	Includes average per application costs incurred (if any) in engaging an external third party provider to assist in the application process.
TOTAL:	A + B + C

Source: WorkSafe.

The most significant contributor to WorkSafe's recoverable cost base is the processing of HRW licences, an estimated 63 per cent of the cost base. As set out in previous chapters, a licence to perform HRW is required for those working with high risk equipment or plant. There are 29 classes of competency under the licence to perform high risk work.

Processing licence applications

The assessment of HRW licences is relatively straightforward, simple and inexpensive for WorkSafe to process. The majority of applications received are processed automatically as outlined in Table 18.3. In practice this means the costs of assessment are lower than they otherwise would have been because WorkSafe has reduced the number of applications that are manually processed.

Table 18.3: Number and share of High Risk Work licences processed automatically,2014-15

	Automatic	Manual	Proportion of total which are automatic
High risk work licence - total	49,319	32,090	61%

Source: WorkSafe.

Applications for new HRW licences, renewals and additions of classes are made at Australia Post outlets. Australia Post performs the 100 point ID check and checks that the name on the application is the same as that on the applicant's identification. The applications are then scanned and submitted to WorkSafe. Those applications that meet WorkSafe's business rules are automatically approved and a HRW licence is sent to the applicant. These applications have no input from WorkSafe.

The majority of costs incurred by WorkSafe relate to its contract with Australia Post, which receives and processes HRW licence and renewal applications at the retail point of sale stage of the application process. WorkSafe licensing officers only assess applications that rejected by the automatic application of the business rules. However, information provided by WorkSafe indicates that the vast majority of these 'manual' assessments (around 95 per cent) take WorkSafe staff between two to five minutes per application to assess and approve. While they typically relate to human error (i.e. the applicant fills out the form incorrectly), they can also relate to one of the following issues:

- The applicant may already exist on the system
- Licence has expired
- Postcode mismatch
- Scanning errors incorrect assessor identification, date misread etc.
- Applicant has an interstate address
- Applicant is under review.

High Risk Work licences - interstate applications and mutual recognition

Although the majority of HRW licences are standard in the process and time taken to assess, all mutual recognition licences are manually processed by WorkSafe. WorkSafe maintains these licences within the standard renewal category for the purpose of fees (rather than having separate higher fees for them).

HRW licences are currently recognised nationally—the model WHS Regulations provides that a reference to a HRW licence includes a reference to an equivalent licence granted under a corresponding WHS law. WorkSafe proposes to maintain mutual recognition licences in the renewals category because mutual recognition was established through a COAG agreement between Australian States and Territories with the intention of ensuring different licencing regimes across Australia do not act as a barrier to people seeking to work interstate. A higher fee for mutual recognition licence assessments would undermine the policy intent of mutual recognition. In addition, the model WHS Regulations provides that a HRW licence has a duration of five years (r. 92). If Victoria was to increase or decrease the duration of its HRW licence from the current duration of five years, it is possible that other jurisdictions would not recognise Victorian licences. This would affect Victorian operators who seek work in other states/territories. In the interests of mutual recognition of HRW licences, WorkSafe proposes to maintain the current 5-year life of its HRW licences.

18.3.3.2 Breakdown of activity based costing

Table 18.4 outlines the average time spent by WorkSafe in assessing each HRW licence and renewal application, and the corresponding cost components. These cost components sum up to form a fee amount that fully recovers WorkSafe's costs per application.

The figures in the table have been estimated on an average cost basis. Total costs incurred in a year have been divided by the number of HRW licence and renewal applications and based on the following approach and assumptions:

- The volume data used to calculate the average cost per application is the average of 2014-15 volumes and projected volumes for 2015-16 and 2017-18 for new applications and renewals¹⁷¹
- The cost of the Australia Post contract and the average cost of letter producer and mail storage were increased by the CPI
- Wages are assumed to grow by the current Victorian Public Service EBA to 2016-17 and extrapolated to 2017-18 using the four year historical average growth in the Victorian Public Service EBA.

WorkSafe estimates of on-costs and overheads have been used. On-costs include non-wage related staffing costs such as superannuation and leave entitlements. An on-cost multiplier of 1.27 has been applied to salary costs in this table. Overheads have also been added to these costs - a multiplier of 1.5 was applied to salary costs. Overheads include accommodation, equipment and other physical capital used in the process of assessing licence applications.

	New lice	ences	Rene	wals
Cost	Cost/Fee	Minutes	Cost/Fee	Minutes
Licensing officer assessment	\$3.93	5.85	\$2.97	4.43
Team leader review	\$0.18	0.18	\$0.13	0.13
Quality assurance review	\$0.40	0.53	\$0.30	0.40
Australia Post processing	\$52.53		\$39.86	
Letter producer - outsourced	\$0.71		\$0.63	
Mail storage services - outsourced	\$0.04		\$0.04	
On-costs	\$1.22		\$0.92	
Operating expenses	\$2.25		\$1.70	
Total estimated fee - 2017-18	\$61.26	6.56	\$46.56	4.97
Total estimated fee - Rounded to nearest 10 cents	\$61.30		\$46.60	

Table 18.4: Unit costs for High Risk Work licences, 2017-18

Source: WorkSafe.

¹⁷¹ This data was provided by WorkSafe

Impact of additional licence classes

The additional licence classes, the new two-tiered boiler licence system and reach stacker licences, are expected to have minor impact on cost of processing HRW licences due to the small number of licences it affects.

Together the boiler operation licences (basic, intermediate and advanced) make up less than two per cent of HRW licences, and the move to a two-tiered system will only affect a subset of these licences, so from a volume perspective the effect is expected to be minor. From a cost perspective for assessing licences, it is expected to have no impact because the process for assessing those licences remains the same as that outlined above; the applicant will simply fill out a different form. Changes to the licence class will only require an update to the processing system, which WorkSafe has advised has been factored in its implementation plan.

The introduction of reach stacker licences is also expected to have minor impact from a cost recovery perspective. Currently those operating a reach stacker either operate under a Slewing crane licence, or under an exemption (held by the employer).

- To the extent that when they are renewing their licences workers opt to get a reach stacker licence instead of a slewing crane licence, this will have no effect on volumes or revenue since it is simply a switch within the HRW licence category.
- Currently those who operate a reach stacker under exemption do not hold a licence. The exemption held by the employee allows employees without a licence to operate the equipment, as the employer must provide appropriate training.

Approach to estimating fees for other licences

The same approach was applied to estimate the cost recovery fees for other licences. After establishing the activities that are recoverable and non-recoverable (as discussed earlier), WorkSafe estimated how long assessments take (in partial FTE days) by staff level to estimate the licence unit cost. Total costs include wages plus on-costs and overheads, contract costs (in the cases of Australia Post for HRW licences) and the costs of WorkSafe assessing the suitability of registered training organisations who issue construction induction cards.¹⁷² Average cost per licence application was then estimated by dividing total costs by licence application volumes. This is a simplified approach - another approach to estimating this is to take a weighted average of wage costs (based on level of pay), although the resulting fees are broadly comparable.

18.3.4 Efficient costs

No evidence has been found to suggest that the cost recovery shortfall is a result of WorkSafe being inefficient or having poor administration practices. An Essential Services Commission review of the efficiency and performance of WorkSafe in 2013 did not identify

¹⁷² The majority of construction induction card application assessments are outsourced to Registered Training Organisations (RTOs). However, WorkSafe expends resources to assess the suitability of RTOs. Given RTOs play a significant role and are critical to establishing and maintaining the integrity of the CIC process, it is reasonable to recover the costs of assessing the suitability of RTOs.

any such issues, and specifically "found no apparent need for widespread systemic reform". $^{\rm 173}$

18.4 Nature and extent of the problem

18.4.1 Funding for government services

Best practice regulation aims to address failures pertaining to market outcomes at minimum cost to consumers and industry. In order to make a case for government intervention, it must first be established what problem the proposed Regulations are seeking to address.

In the case where regulations are due to sunset, the role of the RIS is to determine whether there remains a case for government intervention. That is, whether the problem for which the sunsetting regulations were established still applies.

In this context, assessing the nature and extent of the problem should consider the need for fees on a 'first principles' basis, that is, to consider whether fees are needed to recover WorkSafe's costs at all (as opposed to assessing whether they should be amended). The base case therefore is a scenario where the OHS and EPS Regulations remain active but where WorkSafe does not charge user fees for its activities associated with administering the licencing regime.¹⁷⁴ Under this scenario, WorkSafe would be required to make up the revenue shortfall through alternative, less efficient ways in order to remain operational, such as cross-subsidisation from the workers compensation premium or general taxpayer funded sources.

18.4.2 Ensuring cost recovery for regulated activities

Currently, fees are levied on the applicant who is applying for the licence, registration or exemption application. There is a strong case that fees should fully recover WorkSafe's assessment costs from applicants. This is primarily based on the argument that the assessment costs incurred by WorkSafe and the benefits to industry should be fully internalised by the industry that gives rise to the need for the regulation in the first place:

- Without licensing or registration requirements, it is more likely that health and safety issues would arise, placing the government's outcomes at risk.
- Many applicants also benefit from the process by receiving the licence, registration or exemption they applied for as the licencing regime creates a barrier for entry to the sector or activity – for example, individuals must hold a HRW licence to operate a forklift, and regulations restrict removal of asbestos to licensed removalists in most cases.

¹⁷³ Essential Services Commission (2013) Efficiency review of the TAC and VWA: Summary, available online http://www.esc.vic.gov.au/getattachment/b64d5ea8-b466-48a9-9fb7-8b2afdfd15d7/Efficiency-Review-of-the-TAC-VWA-Summary.pdf

¹⁷⁴ The rationale for the OHS and EPS Regulations themselves has already been addressed in the earlier chapters of this RIS.

In practice, WorkSafe's fees currently do not fully recover the costs associated with its services. The cost recovery analysis undertaken by WorkSafe as part of this RIS found that by 2017-18, its estimated costs for recoverable activities performed by WorkSafe under the OHS and EPS Regulations would be \$6.3 million per annum, while revenue from current fees is projected to be around \$5.3 million, see Table 18.5.

Fees	Revenue (current fees)	Estimated cost	Recovery
High Risk Work licences	\$3,836,000	\$3,950,074	-3%
Asbestos removal licences	\$40,308	\$76,363	-47%
Licences to use carcinogenic substances	\$1,116	\$2,580	-57%
Major Hazard Facility Licences	\$590,000	\$1,147,760	-49%
Registration of plant design	\$40,473	\$211,785	-81%
Construction Induction Card	\$802,206	\$739,812	8%
Exemption applications	\$4,450	\$6,280	-29%
Lost, stolen & destroyed documents*	\$0	\$158,400	-100%
Total	\$5,314,554	\$6,293,053	-16%

Table 18.5: Indicative estimated 2017-18 revenue and costs

Source: WorkSafe.

There are a number of reasons for the shortfall between costs and revenue. At the time fees were initially derived (2007), the following OHS fees were set at a level that did not fully recover administrative costs. One reason for under-recovery is that some fees were intentionally undervalued when fee values were initially derived in 2007, including:

- Construction induction card fee was set at \$27 (full cost recovery at the time was estimated at \$34) to facilitate take–up and acceptance of this scheme
- Licence to perform high risk work renewal and replacement fees were set at \$45 rather than \$60.

Further reasons for the projected under-recovery of fees include:

- Fee have not been indexed for inflation since the Regulations commenced in 2007
- The nature of the assessment task for WorkSafe has changed, with some licence/registration categories becoming more complex and time consuming to process than envisaged in 2007.

Further analysis by WorkSafe also shows an inconsistency in the level of cost recovery across different activities, with one fee over-recovering cost and all other fees under-recovering cost to varying degrees. The existence of this inconsistency is contrary to Victorian Government policy and requirements in the *Victorian Guide to Regulation* that cost recovery charges be set at a level that recover the 'efficient' (i.e. minimum) costs of providing the good/service at the required quality.

18.4.3 Risk from not charging fees to recover costs

The key risk of not recovering costs through fees is that WorkSafe will be unable to fully fund its licencing regime and related assessment activities.

Without the power to recover costs, the revenue shortfall would need to be made up from other, less efficient revenue sources in order for WorkSafe to continue to operate its

licencing functions. This option is unequitable, as it is based on cross-subsidisation from a group of individuals and businesses that do not all contribute to the costs required to be recouped by WorkSafe. It is also likely to be an unsustainable option over time.

18.4.4 Objectives of intervention

The Government's general policy is for regulatory costs to be recovered directly and fully through regulatory fees; and for the fee amount to be automatically indexed each year (by prescribing fees in 'fee units'), so that the value of those fees and fines is maintained over time.

Other indirect forms of cost recovery, for example raising revenue from broad sources such as workers compensation premium payers, should only be relied upon as a funding source when more direct charging options are not justified or practically feasible.

18.5 Options to achieve the objectives

As outlined in the *Victorian Guide to Regulation*, the range of different options required to be considered includes consideration of the following:

- Different levels of regulatory activity that are to be funded through fees and charges
- Different types of fee structures
- Different levels of cost recovery (including 100 per cent cost recovery).¹⁷⁵

Two alternative fee options that could be considered in this RIS include a fee schedule consisting of flat fees, and a schedule consisting entirely of variable fees. These options have not been pursued by WorkSafe in this RIS. WorkSafe's current and proposed fee schedule is a combination of flat and variable fees. More specifically, WorkSafe's fees are flat for those activities that are more standardised in nature (i.e. where the amount of time required to assess/administer/licence is predictable with little variation), while activities where there is more variability in WorkSafe's time and effort have variable fees attached.

WorkSafe's fee options focus on different fee *levels* that reflect the estimated costs owing to different licence durations (and therefore the frequency of assessments). Each option features the same structure of fees. WorkSafe has identified three options:

- 1. Maintain current fee levels
- 2. Cost reflective with a five year licence duration (preferred)
- 3. Cost reflective with a three or seven year licence duration

While Options 2 and 3 are set to fully recover costs in 2017-18 and are aligned to cost recovery principles, WorkSafe proposes to maintain fee caps on variable fees. This is discussed further under Option 2. WorkSafe also proposes that fees are converted to fee units for Options 2 and 3 so that they are automatically indexed annually to keep pace with inflation. To prevent over-recovery of costs over time, WorkSafe also proposes that the fee schedule is reviewed and reset every five years under all options, ensuring that fee revenue

¹⁷⁵ Department of Treasury and Finance, (2013), *Cost Recovery Guidelines*, January.

stays aligned to costs. In proposing fees, WorkSafe also considered equivalent fee levels in other states and territories.

18.5.1 Base case

As required by the *Victorian Guide to Regulation*, any analysis of options in a RIS for sunsetting regulations should be done relative to a base case of where no fees would be collected at all for services provided under the OHS and EPS Regulations.

In 2017-18 WorkSafe's projected estimated costs for administrative activities relating to the OHS and EPS Regulations is estimated to be \$6.3 million, which would need to be funded through alternate sources (such as cross subsidisation from the WorkCover premium revenue).

18.5.2 Option 1 – Maintain current fee levels

Option 1 is involves maintaining current fee levels and structures. As discussed above, the current schedule of fees is under-recovering costs from users of the OHS licence, registration or exemption application system.

The schedule of fees under the option to maintain current fee levels is provided below.

Regulation	Description	Current	Average cost	Recovery
		fee	2017-18	
r.6.1.2(1)(a)	HRW licence	\$60	\$61	-2%
r.6.1.40(1)	Renewal of HRW licence	\$45	\$47	-3%
r.6.1.2(1)(b)	Class A asbestos removal licence (and renewal)	\$507	\$1,030	-51%
r.6.1.2(1)(c)	Class B asbestos removal licence (and renewal)	\$469	\$877	-47%
r.6.1.17(1)(a)	Carcinogens licence, Schedule 1	\$68	Schedule 1 &	-37%
	(hourly rate) ¹		2:	
			\$108	
r.6.1.17(1)(b)	Carcinogens licence, Schedule 2 (hourly rate) ¹	\$77	\$108	-29%
	Carcinogens licence , Schedule 2	\$761	\$1,183	-36%
r.6.1.23(1)	MHF new licence and renewal	\$80	\$126	-37%
	(hourly rate)			
	MHF new licence and renewal (Maximum fee) ²	\$56,560	\$89,365	-37%
r.6.1.28(2)	Replacement of lost, stolen or destroyed licence documents	\$11 ³	\$5	n/a
r.6.2.2(c) & EPS	Application for registration of	\$52	\$272	-81%
r.802(4)(e)	plant design	μ	<i>ΥΥΥ</i>	-01/0
r.6.2.15c)	Application for registration to	\$27	\$25	8%
1.0.2.130	perform construction work	<i>γ21</i>	ŞΖJ	070
	(Construction induction card)			
r.7.2.17(2)	Application for exemption	\$74	\$105	-29%
. ,	(hourly rate)			
EPS r.107(7)	Application for exemption (EPS) (maximum fee)	\$445	\$628	-29%

Table 18.6: Option 1 Maintain current fee levels, schedule of fees

Source: WorkSafe.

Notes: ¹Variable rates are charged up to 11.3 hours. ²Variable rate applied to a maximum of 707 hours. ³While Regulations currently allow WorkSafe to charge a fee to replace Lost, stolen and destroyed licence documentation, in practice this fee is not collected.

WorkSafe's costs of assessing licensing, registration and exemption applications are estimated to exceed the current fees payable significantly if the OHS Regulations are remade in 2017-18 under the maintain current fee levels option (with the exception of construction induction cards which slightly over-recover costs).

Total fee revenue generated in 2017-18 is estimated to be \$5.31 million, whereas the projected estimated cost is \$6.29 million, representing under-recovery of 16 per cent, as shown below. Going forward, this shortfall would continue to grow since fees are not expressed in fee units and are therefore not indexed with inflation. See Table 18.5.

By not recovering costs through fees, WorkSafe would need to rely on funding from its other revenue sources such as workers compensation premium revenue. This option would exacerbate the current cross subsidy from those businesses that pay premiums only to applicants who effectively pay reduced fees for their licence, registration or exemption. This is the case because some premium payers are not required to be licensed, registered or exempted.

18.5.3 Option 2 (Preferred) – Cost reflective with a five year licence duration

Option 2 is the alignment of the fees charged under the OHS Regulations and EPS Regulations with the principles of cost recovery, with the exception of maintaining maximums (or caps) for the variable fees. It is the preferred option.

The total fee revenue generated in 2017-18 is estimated to be \$6.29 million under this option, equal to the estimated costs. While fees are proposed to be set to recover full costs, practically speaking, this option does not represent 'pure' cost recovery because it incorporates fee caps for a number of fees, including Carcinogens licences (Schedule 1 & 2) and MHF licences. For services subject to a variable fee, in the cases where assessments take longer than the prescribed maximum fees allow, fees will under-recover costs.

	Revenue		Estimated costs	Difference between
	Maintain current fee levels	Option 2		Option 2 and estimated costs
High Risk Work licences	\$3,836,000	\$3,950,074	\$3,950,074	-
Asbestos removal licences	\$40,308	\$76,363	\$76,363	-
Licences to use carcinogenic substances	\$1,116	\$2,580	\$2,580	-
Major Hazard Facility Licences	\$590,000	\$1,147,760	\$1,147,760	-
Registration of plant design	\$40,473	\$211,785	\$211,785	-
Construction Induction Card	\$802,206	\$739,812	\$739,812	-
Exemption applications	\$4,450	\$6,280	\$6,280	-
Lost, stolen & destroyed documents ¹	\$0	\$158,400	\$158,400	-
Total	\$5,314,554	\$6,293,053	\$6,293,053	-

Table 18.7: Option 2 - estimated revenue and costs

Source: WorkSafe and Deloitte Access Economics analysis.

Notes: ¹While Regulations currently allow WorkSafe to charge a fee to replace Lost, stolen and destroyed licence documentation, in practice this fee is not collected.

Table 18.8 shows that this option results in most fees increasing:

Table 18.8: Summary of fees

Increase – existing fees	Decrease – existing fees	New fees
Class A asbestos removal licence application and renewal	Construction induction card	Class B "specific" asbestos removal licence

Increase – existing fees	Decrease – existing fees	New fees
Class B asbestos removal licence application and renewal		Transfer of, amendment to or safety case applications made under MHF licence
High risk work licence replacement		
Major hazard facility licence		
Exemption application		
High risk work licence issue		
Registration of plant design		
Carcinogenic licence (Schedule 1)		
Source: WorkSafe.		

New fees

WorkSafe proposes two new fees to improve the cost recovery of particular categories of licences and application assessments - these activities are components of existing fee categories. These fees, which also apply to Options 2 to 4, include:

- Transfer of, amendment to or safety case applications made under MHF licence; and
- Class B "specific" asbestos removal licence.

Rationale for new MHF licence transfer fee

Under regulation 6.1.30 of the OHS Regulations, WorkSafe has the power to transfer an MHF licence to another person who is to become the operator of a MHF, provided that WorkSafe is satisfied the new person is capable of achieving an equivalent level of health and safety to the outgoing licence holder. However, WorkSafe cannot charge a fee to recover its costs of assessing the transfer application the current Regulations. Similarly, a fee is not charged under:

- Regulation 6.1.34 that allows for the amendment of a MHF licence at the request of the licence holder. Amendments may include addition of an extra material not listed on a current licence and therefore may require assessment by an analyst and on-site verification by an inspector (similar to a transfer) and can therefore be significant work
- Regulation 5.2.17(1)(a) and (3) As sub section (3) requires the MHF operator to provide the safety case to WorkSafe after a revision is made and this then needs to be assessed. In some cases this is straight forward but in others it may require considerable time and effort. An example of this would be following a major incident at a facility and WorkSafe needing to assure itself that the proposed new/additional controls are sufficient. Another example would be where a MHF adds new equipment (but doesn't need to amend the licence as no new chemicals are being introduced).

As is the case with MHF licence and renewal applications, the time WorkSafe takes to assess MHF transfer applications can vary depending on the complexity of the transfer. For example, in the case of a simple transfer of licence, the assessment can involve a name change only. In more complex cases (including where there are systems changes), WorkSafe needs to assess the transfer application more closely to consider whether it will impact systems and controls in the Safety Case. This could take several days including site verifications from the inspectors and safety analyst. By way of example, the most complex

licence transfer required extensive assessment, meetings and site verifications as it involved system and personnel changes. WorkSafe estimated that the effort this application took was equivalent to 2 months of a FTE. The MHF Unit has advised that transfer applications are becoming more frequent over recent years.

WorkSafe's proposed new fee for MHF licence transfer also addresses an inequity in the MHF licensing process whereby those applying for a new or renewed MHF licence pay a fee but those receiving a transferred licence do not.

Class B "specific" asbestos removal licence

These applications are a subset of the Class B asbestos removal licence activities but take WorkSafe less time to assess than the standard Class B applications.

In the context of the two Asbestos removal licence classes, regulation 6.1.24 allows WorkSafe to issue restricted licences for certain types of asbestos removal work. These are normally referred to as Class A or B 'specific' licences. In this case, the licence issued restricts the holder to removing only that type of asbestos specified in the licence. For example, Class B Specific Licences have commonly been provided to water authorities, which allows them to remove non-friable asbestos cement pits and pipes only.

As of 28 July 2014, there were four Class A specific and 119 Class B specific licensed asbestos removalists. In some instances, the granting of the Type B specific licence requires less work from WorkSafe to assess and process the application because of its limited nature.

To improve cost reflectiveness, WorkSafe proposes that an hourly fee be created for Class B Specific licences capped at a maximum of 9.5 .hours which is equivalent to the Class B licence fee A Class B Specific licence application will cost less when the time taken to assess it is less than the average time taken for a standard Class B application. It may also have the secondary benefit of discouraging unlicensed asbestos removal by reducing the cost of applying for a Class B Specific licence.

Proposed fees

Proposed fee amounts under Option 2 are shown in Table 18.9. The fee amounts in Option 2 reflect the estimated cost of providing the relevant services.

Regulation	Description	Proposed fee	Average cost
r.6.1.2(1)(a)	High Risk Work licence	\$61.30	\$61.30
r.6.1.40(1)	Renewal of HRW licence	\$46.60	\$46.60
r.6.1.2(1)(b)	Class A asbestos removal licence (and renewal)	\$1,030.00	\$1,030.00
r.6.1.2(1)(c)	Class B asbestos removal licence (and renewal)	\$877.40	\$877.40
r.6.1.2(2)	Application for HRW licence to under one or more certificates of competency	\$61.30	\$61.30

Table 18.9: Option 2 - Cost recovery and five year licence duration, schedule of fees

Regulatory Impact Statement for proposed Occupational Health and Safety Regulations 2017 and Equipment (Public Safety) Regulations 2017

Regulation	Description	Proposed fee	Average cost
r.6.1.17(1)(a), r.6.1.17(1)(b)	Carcinogens licence, Schedule 1 & 2 (hourly rate)	\$107.50	\$107.50
	Carcinogens licence , Schedule 1 & 2 (Maximum fee)	\$1,182.50	\$1,182.50
r.6.1.23(1)	MHF new licence and renewal (hourly rate)	\$126.40	\$126.40
	MHF new licence and renewal (Maximum fee) 1	\$89,364.80	\$89,364.80
r.6.1.28(2)	Replacement of lost, stolen or destroyed licence documents ²	\$5.00	\$5.00
r.6.2.2(c) & EPS r.802(4)(e)	Application for registration of plant design ³	\$272.10	\$272.10
r.6.2.15c)	Application for registration to perform construction work (Construction induction card)	\$24.90	\$24.90
r.7.2.17(2) and EPS r.107(7)	Application for exemption (hourly rate)	\$104.70	\$104.70
EPS r.107(7)	Application for exemption (EPS) (maximum fee)	\$628.00	\$628.00
New fee	Transfer of, amendments to or safety case applications made under a MHF licence (hourly rate)	\$126.40	\$126.40
New fee	Class B Specific Asbestos Removal License (hourly rate), capped at the Class B asbestos removal licence fee	\$92.50	\$92.50

Source: WorkSafe.

Notes: Under the option to maintain current fee levels, no fee is payable for adding an additional supervisor to an asbestos licence. ¹Maximum fee payable, and is based on capping the number of hours that the hourly fee amount applies to. The maximum number of hours that have been applied include: MHFs (707 hours), Carcinogens (11.3 hours for current and indexed fee amounts in 2018-19) and 11 hours (for fee based on full cost recovery in 2017-18), and Exemptions (6 hours). ²Despite having a fee established, in practice the fee is not charged by WorkSafe. ³WorkSafe proposes that a single fee be charged for a prescribed equipment design application (i.e. do not require fee under the EPS Regulations where an application has also been made under the OHS Regulations).

18.5.3.1 Maintaining the existing fee structure

WorkSafe is generally proposing to maintain the existing fee structure, with the exception of Carcinogenic Substance licences.

Carcinogenic Substance Schedule 1 & 2 licences are proposed to be combined into a single hourly fee and single fee cap because both application types involve a similar assessment process. A per hour of assessment charge is proposed by WorkSafe to allow for the considerable variation in the time taken to assess each application.

As discussed earlier in this chapter, WorkSafe proposes to maintain hourly fees for licence types that vary significantly in the time that they take WorkSafe to assess, and flat fees for licence types where the time to assess is fairly predictable and the process is more

standardised. To illustrate how WorkSafe approached the issue of flat versus variable fee structures, a summary of two licence types is provide in this section: MHF and HRW licences.

WorkSafe proposes to maintain an hourly fee for MHF licences because of the significant variation in the time needed to assess different applications based on facility size and complexity across Victoria. To illustrate this point, a sample of (anonymised) facilities with the time taken by WorkSafe to assess its application has been provided below. This sample is representative of both the variation in complexity and time it takes staff to assess Major Hazard Facilities in Victoria. This level of variability in time to assess different facilities is expected to persist over time for Major Hazard Facilities.

Table 18.10: Representative sample of time taken to assess Major Hazard Facility licence
applications

Facility	Hours
A	336.7
В	188.5
С	359.8
D	496.9
E	197.5
F	532.5
G	501.5
Н	478.5
I	317.5

Source: WorkSafe.

On the other hand, Worksafe proposes to maintain a flat fee structure for HRW licences as the majority of applications are processed automatically by Australia Post with no 'touch-time' from WorkSafe. Costs to WorkSafe for those applications are based on its (volumetric) contract with Australia Post.

As noted earlier, approximately 95 per cent of the licence applications manually assessed by WorkSafe take around two to five minutes per application to assess and approve.

Historical volume data from WorkSafe shows that the share of automatically processed applications has been relatively stable over the last five years. Furthermore, there are no known upcoming changes to WorkSafe's business rules around eligibility for automatic processing changes, which would change the share of applications that are automatically processed.

18.5.3.2 Maintain maximum payable fee

The fees that are currently variable (under the option to maintain current fee levels) are all subject to a fee cap. Under Options 2 to 4, WorkSafe proposes to continue to impose caps for these fees.

While there is merit, on the surface, to removing maximum fee payable caps on cost recovery grounds, this needs to be balanced against other objectives. For example,

maximum fee payable caps provide a degree of certainty to applicants. Furthermore, they also act as an incentive for WorkSafe to be efficient and timely in its assessment process. As a result, it is proposed that maximum fee payable caps be retained.

How were caps set?

Worksafe proposes to maintain fee caps for Carcinogenic Substances and MHF licences:

- Worksafe proposes to reduce the fee cap for Carcinogenic Substances licences from 11.3 hours to 11 hours. 11 hours is the maximum time taken by WorkSafe to complete a carcinogenic licence assessment over the last five years.
- There have been seven MHF licence applications that took longer to process than the MHF fee cap – WorkSafe have advised that these were in the first round of licence assessments after regulations were introduced in 2000, and reflect the fact that there were a number of large facilities being assessed for the first time. Since then the cap has not been exceeded.

Hence WorkSafe does not expect any under-recovery to result from the caps.

18.5.3.3 Fee exemptions for the nomination of additional asbestos removal supervisors

Asbestos is a significant public health and safety issue in Australia, which has one of the highest rates of asbestos-related disease and death worldwide.¹⁷⁶ Removalists are an important part of safely removing asbestos.

Under current asbestos licencing, when a supervisor is nominated as part of an application to obtain a new or renewed asbestos removal licence, the costs of the assessment are captured by the licence fee. The licence fee is based on the licence class, with Class A fees higher than Class B fees. However, no fee is charged and hence costs are not recovered when a nomination for additional asbestos removal supervisors is made after a licence has been awarded. Before the nomination for a supervisor is accepted the person's knowledge of the asbestos regulations and asbestos removal practices are assessed by WorkSafe. This involves a site visit and usually takes at least two hours.

A fee for nominating additional asbestos removal supervisors would allow WorkSafe to fully recover the costs of assessing these nominations, consistent with the principle of cost recovery. It would also introduce a price signal that may reduce inappropriate nominations being made. However, care would need to be taken not to dissuade licence holders from nominating additional supervisors. Asbestos removal supervisors are required to be appropriately trained and experienced and for non-friable removal jobs the supervisor must be readily accessible to the persons performing the asbestos removal work.

WorkSafe proposes that no fee be levied when a licence holder nominates additional asbestos removal supervisors after a licence has been awarded. The licence fee structure for Class A and Class B asbestos removal licences is maintained. An alternate approach would be to charge a base fee for each Class of licence with an additional fee per

¹⁷⁶ Australian Government, New Victorian Asbestos Eradication Agency welcomed, 21 March 2016. www.asbestossafety.gov.au/article/new-victorian-asbestos-eradication-agency-welcolmed

nominated asbestos removal supervisor. This alternate would be more cost reflective and would allow a fee to be charged when additional asbestos supervisor nominations are made. However, it would also introduce greater complexity into the asbestos removal licence fee and may lead to licence holders unduly limiting the number of asbestos supervisors they nominate. WorkSafe considers that the benefit of recouping a minor amount of revenue by charging for additional asbestos removal supervisor nominations does not compensate for the additional complexity. The total cost of assessing asbestos removal licences (both Classes A and B) is small compared to other licence types, at an estimated 1.2 per cent of WorkSafe's recoverable cost base.

18.5.4 Option 3 – Cost reflective with a three or seven year licence duration

WorkSafe has examined two alternative fee arrangements, based around shorter (three year) or longer (seven year) licence durations. The overall level of cost recovery is the same under a three or seven year licence as a five year licence. They key difference is that the licence fee will be higher for a three year licence (because the same costs are spread over a shorter timeframe), and lower for a seven year licence, than for the five year licence. For example, under Option 2 the licence fee for a five year high risk licence will be \$61.30; it will be \$44 for a seven year licence and \$102 for a three year licence.

These options are not preferred for reasons including the risk that Victorian HRW licences may not be recognised in other jurisdictions due to the longer licencing duration (seven year licence) or the higher fee that results (three year licence).

18.6 Impacts on small business

It is Victorian Government policy to specifically consider the impact of proposed amendments to legislative proposals on small business in RISs. Where the costs of compliance with regulations comprise a significant proportion of business costs, small business may be affected disproportionately by such costs compared to large businesses. Table 18.11 provides a summary of the likely groups that would be affected by the proposed fee changes.

Fee type	Applicant type	Annualised total cost to applicant over five years
HRW - new	Individuals	\$12.26
HRW - renewal	Individuals	\$9.32
Plant design	Businesses of various sizes	\$54.42
Class A asbestos licence	Most likely small business	\$206.00
Class B asbestos licence	Most likely small business	\$175.48
MHF licence	Very large businesses	\$10,431.37
Construction induction card	Individuals	\$4.98
Carcinogenic Substance Licence	Laboratories and universities	\$129.00
Exemptions	Combination of businesses and individuals	\$125.60
Lost, stolen, destroyed documents	Individuals	\$0.00

Table 18.11: Who is impacted by fee changes

The most significant fee impacts for small businesses will be the proposed increase in asbestos licencing.

It is likely that an asbestos removalist will pass on the fee increase directly to consumers. If a Class A removalist passes on the full increase in the first year (rather than spreading it over five years) it would equate to an increase in price of about \$20 per week. While this could deter some homeowners from using licensed removalists, it is probable that information about the risks of asbestos removal rather than a lower licence fee will influence home-owners decisions. An increase in licence fee is not expected to change the use of asbestos removalists by businesses as compliance with the OHS Regulations requires removalists to be used in the majority of situations.

There have been concerns about the capacity of the asbestos removal industry raised in other contexts, such as the removal of asbestos from education buildings. Consideration could be given to options for encouraging people to become asbestos removalists, such as subsidising training for removalists (as is occurring in Queensland). While another option to address this concern could be to not increase the licence fee, this is more likely to benefit current licenced removalists than increase the capacity of the industry. WorkSafe proposes a transition arrangement for asbestos licence fee increase.

WorkSafe proposes to phase in the asbestos licence fees increases over a period of five years to mitigate the impact to businesses by providing operators time to adjust to the increased costs. WorkSafe proposes that all licence fees be reviewed every five years to ensure that fees continue to reflect costs and do not over-recover.

WorkSafe noted that the proposed increased fee in Victoria is significantly lower than the fees charged in New South Wales and South Australia for Class A removalists (\$5,125 and \$22,140 respectively). These fees are in addition to the requirement to have a certified safety management system. This means that a South Australian removalist pays over \$40,000 to be a Class A licenced removalist. By comparison, WorkSafe's proposed fees do not appear unreasonable.

18.7 Competition assessment

It is Victorian Government policy that legislation which restricts competition will not be passed unless it can be demonstrated that:

- The benefits of the restriction, as a whole, outweighs the costs
- The objectives of the legislation can only be achieved by restricting competition.

In order to assess whether the proposed fee structure will restrict competition, and if so, if the above principles have been met, the following 'competition test' has been applied.

Table 18.12: Impacts of proposed fees on competition

Question	Assessment
Is the proposed measure likely to affect the market structure of the affected sector(s) – i.e. will it reduce the number of participants in the market, or increase the size of incumbent firms?	No
Will it be more difficult for new firms or individuals to enter the industry after the imposition of the proposed measure?	No
Will the costs/benefits associated with the proposed measure affect some firms or individuals substantially more than others (e.g. small firms, part-time participants in occupations etc.)?	No
Will the proposed measure restrict the ability of businesses to choose the price, quality, range or location of their products?	No
Will the proposed measure lead to higher ongoing costs for new entrants that existing firms do not have to meet?	No
Is the ability or incentive to innovate or develop new products or services likely to be affected by the proposed measure?	No

18.8 Implementation considerations and evaluation

Proposed fees largely retain the fee existing structure and therefore should continue to be understood by WorkSafe licence applicants. The collection method is also consistent with the existing arrangements, whereby fees are collected on a per activity basis (for example, application for licences, or exemptions). As is usual practice, WorkSafe will continue to publish fees on its website.

19 Increased national consistency option in detail

This chapter provides a detailed outline of the changes under the increased national consistency option (Option 3) and a discussion of the potential impacts based on the results of the one-to-one interviews with Victorian businesses.

19.1 Background

Option 3 involves a number of changes to the OHS Regulations to achieve greater national consistency within the scope of the OHS Act, but without a diminution in health and safety. The proposed changes are wide and varied and cut across most of the hazard areas in the OHS Regulations. The proposed changes are summarised as follows:

- Broaden the scope of fall prevention regulations
- Make the plant design registration process an approval scheme
- Introduce an absolute duty to have and test emergency plans
- Introduce a duty to provide an adequate level of first aid
- Prescribe a requirement to control the risk of falling objects
- Introduce a general requirement concerning the effective communication for remote or isolated workers
- Require the preparation of an asbestos management plan
- Introduce requirements concerning electrical safety in hostile operating environments

 residual current devices
- Introduce a licensing regime for independent asbestos assessors
- Reduce the value of the principal contractor duty threshold from \$350,000 to \$250,000
- Change provision for persons in training to carry out high risk work at a workplace
- Include cyclophosphamide as a scheduled carcinogen requiring a licence
- A range of other changes that are also proposed under Option 2.

The details of these changes and potential impacts on business are outlined in the following two sections.

As noted in Chapter 4, an option involving full alignment with the model WHS Regulations has not been pursued as it is contrary to Victorian Government policy and would entail adoption of the model WHS Act which is outside the scope of this review.

19.2 Identification of feasible options

19.2.1 Broadening the scope of fall prevention regulations

One key difference between the scope of the model WHS Regulations and the Victorian OHS Regulations is that the model WHS Regulations do not exclude certain activities and tasks which are excluded from the scope of the OHS Regulations. These are: riding a bicycle, motorcycle or all-terrain vehicle, rock climbing, abseiling or any other similar activity as well as tasks undertaken on parts of a building or structure (including stairs, fixed, ladders, ramps and balconies that comply with Australian Standards (AS) 1657 for design). Such exclusions are included in r. 3.3.1.

Under Option 3, it is proposed to broaden the scope of fall prevention regulations such that the following activities and tasks are not excluded from the scope of the OHS Regulations:

- Riding a bicycle, motorcycle or all-terrain vehicle
- Rock climbing
- Abseiling
- Tasks undertaken on parts of a building or structure (including stairs, ladders, ramps and balconies that comply with AS 1657 for design)
- Other similar tasks and activities.

As a result of these changes, a broad range of additional industries would need to consider and comply with the prevention of falls component of the OHS Regulations. These may include:

- Agriculture
- Sports and recreation activities
- Other industries that may have stairs, ladders, ramps or balconies in the workplace (such as Professional, Scientific and Technical Services).

As a result of the proposed changes to the scope of falls regulations under this option, affected industries would have to undertake compliance activities such as hazard identification and risk control.

19.2.2 Make the plant design registration process an approval scheme

Unlike the model WHS Regulations, plant design registration is not an approval scheme under the existing OHS Regulations. In addition, the OHS regulations provide WorkSafe with one month to either register the design or defer registration and request further information. Under the model WHS Regulations, if the regulator has not made a decision within 120 days of receiving the application or additional information requested under the regulations, the regulator is taken to have refused to grant the registration applied for. Reflecting that the Victorian scheme is not an approval scheme, under the existing OHS Regulations, a design is taken to have been registered if WorkSafe does not notify the applicant of registration or deferral of registration within the one month of application. Under Option 3, it is proposed to adopt a plant design approval scheme consistent with the model WHS Regulations. It is understood that the administrative costs to businesses associated with the approval scheme would be equivalent to those associated with the design registration scheme under the OHS Regulations.

19.2.3 Introduce an absolute duty to have and test emergency plans

The model WHS Regulations impose a general duty to prepare, maintain and implement an emergency plan for all workplaces. The requirement is prescriptive about the content of the plan. Comparatively, the Victorian OHS Regulations impose a duty to prepare, test and implement an emergency plan only for workplaces which are major hazard facilities and prescribed mines.

Under Option 3, it is proposed that the Victorian OHS Regulations be broadened such that the duty to prepare, maintain and implement emergency plans applies to all workplaces.

This proposed change to the scope of emergency plans is expected to affect all Victorian businesses, except for major hazard facilities and prescribed mines, for which such an obligation already applies. Workplaces would need to develop an emergency plan and regularly spend time updating it. As such, this change would impose additional administrative costs on a wide range of employers.

19.2.4 Introduce a duty to provide an adequate level of first aid

Victoria's regulations do not contain generic duties relating to first aid, and instead rely on the general duties of the OHS Act, accompanied by a Compliance Code on First Aid. Conversely, the model WHS Regulations impose a general duty to provide first aid at the workplace, ensure that all workers at the workplace have access to the first aid equipment, and ensure that an adequate number of workers are trained to administer first aid.

Under Option 3, it is proposed that a duty be introduced to the OHS Regulations that mandates the provision of first aid in the workplace, access to first aid equipment and the training of workers first aid.

This change has the potential to affect all businesses. However, as many businesses already voluntarily comply with the Compliance Code on First Aid, the overall impact may be somewhat moderated. Businesses who do not already comply with the Code would need to purchase first aid equipment and train workers in order to comply with this proposed requirement. As such, this change would impose additional compliance costs on some employers.

19.2.5 Prescribe a requirement to control the risk of falling objects

Currently in Victoria, the management of risk associated with falling objects is covered under the general duties of the OHS Act. Conversely, under the model WHS Regulations, employers have a specific duty to manage the risks to health and safety associated with falling objects. This requires employers to, so far as is reasonably practicable, eliminate the risk of falling objects at the workplace or, if this is not possible, provide a system of work to minimise the risk of an object falling on a person. Under Option 3, it is proposed to include a specific duty in the OHS Regulations that mirrors the model WHS Regulations provisions regarding falling objects.

The proposed change relating to falling objects is expected to impact employers across a range of industries including warehousing and storage services, wholesaling, mining and construction. As many employers in these industries likely already control for such risks as required by general duties under the OHS Act, the overall impact may be somewhat moderated. Those not currently complying with the general duties under the OHS Act would need to undertake compliance activities such as hazard identification and risk control. As such, this change would impose additional compliance costs on some employers.

19.2.6 Introduce a general requirement concerning the effective communication for remote or isolated workers

Currently in Victoria, the management of risk associated with remote or isolated work is covered under the general duties of the OHS Act, with the exception of mines. Conversely, the model WHS Regulations impose a general duty to manage risks to workers undertaking remote or isolated work. In doing so, a system of work must be provided that includes effective communication with the worker. Since remote or isolated work is defined with regard to the location and nature of the work and the time the work is undertaken, this duty could apply to night shift workers, as well as those working in remote and isolated workplaces, e.g. farm employees.

Under Option 3, it is proposed to include a specific duty under the OHS Regulations for employers to manage risks for workers undertaking remote or isolated work that mirrors the provisions under the model WHS Regulations.

This change is expected to affect employers across a range of industries including warehousing and storage services, retail and agriculture. As many in these industries likely already control for such risks as required by general duties under the OHS Act, the overall impact may be somewhat moderated. Those not currently complying with the general duties under the OHS Act would need to undertake compliance activities such as hazard identification and risk control. As such, this change would impose additional compliance costs on some employers.

19.2.7 Require the preparation of an asbestos management plan

Under the current Victorian laws, an asbestos management plan is not required. Instead, duty holders are required to identify, record and apply risk control measures in respect to asbestos found in the workplace. In addition, an asbestos control plan must be prepared by the licensed removalist. Conversely, under the model WHS Regulations, a person with management or control of a workplace where asbestos is present is required to prepare a detailed Asbestos Management Plan. The plan includes: reference to the asbestos register, the location of signs and labels, safe work procedures and control measures, procedures for detailing incidents and emergencies, and consultation, information and training responsibilities for workers carrying out work involving asbestos.

Under Option 3, it is proposed that the Victorian OHS Regulations include a provision to require persons in management or control of a workplace where asbestos is present to prepare an asbestos management plan.

This change is expected to affect employers across a range of industries including warehousing and storage services, manufacturing, construction and telecommunications services. Businesses affected by this change would be required to spend additional time preparing the Asbestos Management Plans. As such, this change would impose additional compliance costs on some employers.

19.2.8 Introduce requirements concerning electrical safety in hostile operating environments – residual current devices

Victoria's OHS Regulations impose no specific obligations on electrical safety. Instead, Victoria relies on a combination of the general duty under the OHS Act and specific electrical safety legislation administered by Energy Safe Victoria. Conversely, the model WHS Regulations include a requirement to fit residual current devices (RCDs) to sockets in hostile environments. This requires retrofitting of RCDs to existing workplaces or use of a portable device to protect sockets. It impacts on a large number of persons conducting a business or undertaking, including potentially a number of small businesses and home offices. The meaning of a hostile operating environment is broad and could potentially capture home offices.

Under Option 3, it is proposed that requirements are introduced to the OHS Regulations for businesses to fit RCDs in hostile operating environments.

This proposed introduction of residual current device requirements could potentially affect a broad range of businesses across all sectors, especially the manufacturing sector, and may also impact a number of small businesses and home offices. Affected businesses are expected to need to install or retrofit RCDs in their workplace. As such, this change would impose additional compliance costs on some employers.

19.2.9 Introduce a licensing regime for independent asbestos assessors

Independent assessors are required to be licensed under the model WHS Regulations, whereas the OHS Regulations only require an independent assessor to possess relevant qualifications.

Under Option 3, it is proposed that a licensing regime, similar to that for asbestos removalists, is introduced for independent asbestos assessors. The exact number of independent asbestos assessors is unknown. Asbestos assessors who undertake monitoring and issue clearance certificates for friable jobs (Class A) and large non-friable jobs (Class A or Class B) will be accredited by the National Association of Testing Authorities (NATA). A search of the NATA website identifies 22 laboratories/analysts approved to undertake asbestos identification and fibre counting in Victoria. However, assessors that undertake monitoring and issue clearance certificates for smaller non-friable jobs are not likely to be accredited and so are not listed on the NATA website.

Those impacted by the proposed introduction of a licensing regime for independent asbestos assessors are expected to incur the cost of any training required as part of the licensing as well as the cost of a licence. As such, this change would impose additional compliance costs on some businesses.

19.2.10 Reduce the value of the principal contractor duty threshold from \$350,000 to \$250,000

The threshold at which the principal contractor duties apply under construction-related regulations is \$350,000 in Victoria and \$250,000 under the model WHS Regulations.

Under Option 3, it is proposed to reduce the principal contractor duty threshold to \$250,000.

The reduction in the duty threshold would mean that more principal contractors would be required to comply with duties under construction-related regulations. It is unclear how many additional principal contractors would be affected by the decrease to the threshold. This proposed change would require more principal contractors to prepare and maintain a health and safety coordination plan, and display a sign with their contact details that can be clearly seen from outside the workplace. As such, this change would impose additional compliance costs on some businesses.

19.2.11 Change provision for persons in training to carry out high risk work at a workplace

The model WHS Regulations allow a person to carry out high risk work without a licence if the work is carried out in the course of training towards a certification in order to be licensed to carry out the high risk work. The person must be under the supervision of a person who is licensed to carry out the high risk work. This must be direct supervision except in prescribed circumstances.

Conversely, the OHS Regulations allow a person who is undertaking training for the purpose of obtaining a high risk work licence to perform high risk work without a licence at a workplace. The person must be under direct supervision except in prescribed circumstances and the direct supervisor of the trainee must be authorised by the employer to oversee the trainee and hold a relevant high risk work licence.

Under Option 3, it is proposed to adopt the WHS approach in respect to the allowance to undertake training at a workplace for the purpose of obtaining a high risk work licence. This change may reduce the flexibility for employers and trainees.

19.2.12 Include cyclophosphamide as a scheduled carcinogen requiring a licence

Under the model WHS Regulations, cyclophosphamide (a cytotoxic drug used to treat cancer) is listed as a restricted carcinogen requiring a licence to be obtained. Cyclophosphamide is used in a number of workplaces including hospitals and nursing homes.

The OHS Regulations do not require a licence for the use of cyclophosphamide. The model WHS Regulations do not exempt cyclophosphamide from coverage, meaning duty holders in states and territories subject to the model WHS Regulations are required to seek an exemption from the regulation or obtain an authorisation to use cyclophosphamide.

Under Option 3, it is proposed to include cyclophosphamide on the list of restricted carcinogens requiring a licence in Victoria. This change would impose additional administrative and licence costs on some businesses.

19.2.13 Change the definition of a fall to define risk of a fall as "from one level to another"

Refer to Section 8.5.3.1 for details.

19.2.14 A range of other changes that are also proposed under Option 2

In addition to the proposed changes outlined above, Option 3 includes select changes proposed under Option 2 that achieve greater national consistency. These are summarised as follows:

- Adopt the model WHS Regulations approach of modified GHS for hazardous substances in the OHS Regulations and remove reference to the Approved Criteria and the Hazardous Substances Information System
- Amend labelling requirements for agriculture and veterinary chemicals to mandate the inclusion of 'GHS hazard and precautionary statements' on labels approved by the Australian Pesticides and Veterinary Medicines Authority
- Remove the requirement that manufacturers need to review their MSDS if they have not supplied hazardous substances for at least five years since the last MSDS was prepared
- Consolidate list of hazards to be considered when identifying a mining hazard with the draft model WHS Mining Regulations list of principle mining hazards, retaining the remaining OHS factors Amend the requirement that prescribed mining operators ensure air is maintained at a safe level 'throughout the mine' to only 'areas in the mine in which persons work or travel'
- Permit employment of 16-18 year olds in mines in certain contexts. Allow persons under the age of 18 (excl. underground mines) and 16 (excl. underground and open cut mines) to work in certain contexts
- Amend the current duty that all mining operators must ensure, so far as is reasonably practicable, that there are available means for 'constant' communication with an employee who is working alone at an isolated location at a mine, so that the operator must instead provide an 'effective' means of communication
- Adjust the current three-tier boiler licencing scheme of "basic, intermediate and advanced" to align with the two-tier national boiler licencing scheme of "standard and advanced"
- Broaden the scope of work allowed under the bridge and gantry crane operation licence class and the vehicle loading crane operation licence class to include load estimation and slinging techniques to move loads

- Narrow the types of fork-lift trucks requiring a HRW licence by excluding low lift pallet trucks from the definition of fork-lift truck for the purposes of requiring a HRW fork-lift licence and narrowing the definition of an order-picking forklift truck licence so that only order-pickers lifting objects above 900 millimetres off the ground need to be licenced
- Remove the registration requirement for construction induction card which would align with the model WHS Regulations and include replacement provisions to prevent fraud involving construction induction cards
- Incorporate the Dangerous Goods Asbestos Order 2007 into Division 7 of Part 4.3 of the OHS Regulations
- Broaden the application of Divisions 5 and 6 of the asbestos regulations to apply regardless of whether there is fixed or installed asbestos present in the workplace
- Remove asbestos register requirements and demolition/refurbishment regulatory requirements for buildings that are built after 31 December 2003 and where no asbestos is identified or likely to be present from time to time
- Remove the requirement for a written risk control plan under r. 3.2.5 where implementation of a higher order of noise control is delayed by up to six months
- Amend the OHS Regulations to require that a confined space entry permit be retained until the work is completed and for two years in the event of a notifiable incident

The details of these changes are outlined in the relevant chapters of Part Two of this report.

19.3 Costs to employers of changes

19.3.1 Broadening the scope of fall prevention regulations

As a result of the proposed changes to the scope of falls regulations under this option, affected industries would have to undertake compliance activities such as hazard identification and risk control. However, based on a review of the proposed changes and subsequent discussions with WorkSafe, it was determined that affected businesses would be unable to provide estimates of substantive quantifiable costs or benefits.

Given the lack of cost data on the proposal, it is assumed that by increasing the scope of the regulations costs will increase, however it is not possible to estimate the total net cost of the proposed change.

19.3.2 Make the plant design registration process an approval scheme

Based on a review of the proposed change and subsequent discussion with WorkSafe, it is understood that the administrative costs to businesses associated with the approval scheme would be equivalent to those associated with the design registration scheme under the OHS Regulations, therefore there would be no additional cost to business. The change from a registration scheme to an approval scheme impacts on the regulator rather than on businesses.

19.3.3 Introduce an absolute duty to have and test emergency plans

Of the 65 businesses interviewed in relation to this proposal, 15 per cent reported that it would result in a cost to their business, 80 per cent reported that it wouldn't because they already comply and five per cent were unsure. Of those that said they would face costs, six businesses were able to estimate the cost and the average estimate provided was \$4,194 per year with estimates ranging between \$343 and \$10,000. When averaged across the sample of businesses that provided a cost estimate and after weighting the results according to business size, the average cost to the relevant population of businesses can be estimated at \$2,373 per year.

Of those interviewed in relation to this change (excluding those that said that they were unsure of the cost impact) 16 per cent said that they would face a cost as a result of this proposal. Assuming this proposed change has the potential to affect businesses across all industries and sizes, except mines and major hazard facilities, the total number of businesses impacted is estimated at 86,196 (i.e. 16 per cent of all businesses in Victoria excluding mines and major hazard facilities). Therefore, the total cost associated with this proposal is estimated at \$205 million per year relative to Option 1 (remake existing regulations).

Of those interviewed who said that a consistent approach across states and territories would result in a cost saving, the average estimate provided was \$218 per year, noting that this estimate was weighted according to size. Assuming that approximately one per cent of businesses in Victoria operate in multiple states and territories¹⁷⁷ and that all of these businesses would face a cost saving under this change, it is estimated that this would impact 5,351 businesses across the Victorian economy.¹⁷⁸ The total cost saving is therefore estimated at \$1.2 million per year relative to Option 1.¹⁷⁹

When asked about any changes in safety as a result of this proposal, 46 per cent of businesses anticipated that this change would result in a decrease illnesses and injuries. 44 per cent of those businesses expected a small impact, 23 per cent a moderate impact, 23 per cent a significant impact, and ten per cent were unsure.

A number of comments were made in relation to this proposal. Six businesses expressed concern that this proposal would increase costs for businesses other than their own, or an industry as a whole. Three of these businesses were particularly concerned about the impact on small businesses. One business argued that the change would be costly if it adds specific prescribed items over and above the general duty under the Act. It was also noted that the proposal may have a significant impact on the maintenance industry given that

¹⁷⁷ ABS, (2004), Australian Bureau of Statistics Business Register, Counts of Businesses - Summary Tables, Jun 2004, available online http://www.abs.gov.au/ausstats/abs@.nsf/mf/8161.0.55.001

¹⁷⁸ ABS, (2015), *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014* (ABS release no: 8165.0), February 2015

¹⁷⁹ A sensitivity analysis of the assumption that one per cent of businesses in Victoria operate in multiple state and territories was conducted. It found that if five per cent of businesses in Victoria operate in multiple state and territories the estimated cost saving per year relative to Option 1 would increase from \$1.2 million to \$5.8 million.

every job is carried out in a "workplace", inferring that multiple emergency plans would need to be prepared.

19.3.4 Introduce a duty to provide an adequate level of first aid

Of the 65 businesses interviewed in relation to this proposal, 17 per cent reported that it would result in a cost to their business, 83 per cent reported that it wouldn't because they already comply. Of those that said they would face costs, nine businesses were able to estimate the cost and the average estimate provided was \$9,388 per year with estimates ranging between \$70 and \$72,540. When averaged across the sample of businesses that provided a cost estimate and after weighting the results according to business size, the average cost to the relevant population of businesses can be estimated at \$589 per year.

Of those interviewed in relation to this change (excluding those that said that they were unsure of the cost impact) 17 per cent said that they would face a cost as a result of this proposal. Assuming this proposed change has the potential to affect businesses across all industries and sizes, and that the results of the survey are representative, the total number of businesses affected is estimated at 91,976 (i.e. 17 per cent of all businesses in Victoria). Therefore, the total cost associated with this proposal is estimated at \$54 million per year relative to Option 1.

Of those interviewed who said that a consistent approach across states and territories would result in a cost saving, the average estimate provided was \$121 per year, noting that this estimate was weighted according to size. Assuming that approximately one per cent of businesses in Victoria operate in multiple states and territories¹⁸⁰ and that all of these businesses would face a cost saving under this change, it is estimated that this would impact 5,351 businesses across the Victorian economy.¹⁸¹ The total cost saving is therefore estimated at \$648,180 per year relative to Option 1.¹⁸²

When asked about any changes in safety as a result of this proposal, 58 per cent of businesses anticipated that this change would result in a decrease in illnesses and injuries. 40% of those businesses expected a small impact, 26 per cent a moderate impact, 26 per cent a significant impact, and eight per cent were unsure.

A number of comments were made in relation to this proposal. Three businesses were concerned at the cost that this would create for other businesses, two of these highlighting small businesses as an example. One business commented that there should be a subsidy from the Government to cover the costs to businesses. Two businesses noted that this was a good proposed change and two commented that it would be very costly and not reasonably practicable. Finally, it was highlighted that if this were to apply to hospitals

¹⁸⁰ ABS, (2004), Australian Bureau of Statistics Business Register, Counts of Businesses - Summary Tables, Jun 2004, available online http://www.abs.gov.au/ausstats/abs@.nsf/mf/8161.0.55.001

¹⁸¹ ABS, (2015), *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014* (ABS release no: 8165.0), February 2015

¹⁸² A sensitivity analysis of the assumption that one per cent of businesses in Victoria operate in multiple state and territories was conducted. It found that if five per cent of businesses in Victoria operate in multiple state and territories the estimated cost saving per year relative to Option 1 would increase from \$648,180 to \$3.2 million.

nurses could be required to undertake first aid qualifications which would be a "cost with absolutely no additional benefit".

19.3.5 Prescribe a requirement to control the risk of falling objects

Of the 65 businesses interviewed in relation to this proposal, eight per cent reported that it would result in a cost to their business, 91 per cent reported that it wouldn't because they already comply or because they don't think it would be applicable to their business and one per cent were unsure. Of those that said they would face costs, two businesses were able to estimate the cost and the average estimate provided was \$2,596 per year, estimates provided were \$192 and \$5,000. When averaged across the sample of businesses that provided a cost estimate and after weighting the results according to business size, the average cost to the relevant population of businesses can be estimated at \$2,596 per year.

Of those interviewed in relation to this change (excluding those that said that they were unsure of the cost impact, and those from industries that did not face a cost) 28 per cent said that they would face a cost as a result of this proposal. Assuming this proposed change has the potential to affect businesses in select industries, and that the results of the survey are representative, the total number of businesses affected is estimated at 67,675 (i.e. 28 per cent of all businesses from the following industries: Agriculture, Forestry and Fisheries, Manufacturing, Retail Trade, Wholesale Trade, Mining, Construction, and Transport, Postal and Warehousing). Therefore, the total cost associated with this proposal is estimated at \$176 million per year relative to Option 1.

Of those interviewed who said that a consistent approach across state and territories would result in a cost saving, the average estimate provided was \$138 per year, noting that this estimate was weighted according to size. Assuming that approximately one per cent of businesses in the same industries listed above operate in multiple states and territories¹⁸³ and that all of these businesses would face a cost saving under this change, it is estimated that this would impact 2,436 businesses across the Victorian economy.¹⁸⁴ The total cost saving is therefore estimated at \$337,093 per year relative to Option 1.¹⁸⁵

When asked about any changes in safety as a result of this proposal, 46 per cent of businesses anticipated that this change would result in a decrease in illnesses and injuries. 30 per cent of those businesses expected a small impact, 40 per cent a moderate impact, 20 per cent a significant impact, and ten per cent were unsure.

A small number of comments were made in relation to this proposal. Specifically, two businesses noted that this could be costly but it would depend on the exact requirements of the change.

¹⁸³ ABS, (2004), Australian Bureau of Statistics Business Register, Counts of Businesses - Summary Tables, Jun 2004, available online http://www.abs.gov.au/ausstats/abs@.nsf/mf/8161.0.55.001

¹⁸⁴ ABS, (2015), *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014* (ABS release no: 8165.0), February 2015

¹⁸⁵ A sensitivity analysis of the assumption that one per cent of businesses in Victoria operate in multiple state and territories was conducted. It found that if five per cent of businesses in Victoria operate in multiple state and territories the estimated cost saving per year relative to Option 1 would increase from \$337,093 to \$1.7 million.

19.3.6 Introduce a general requirement concerning the effective communication for remote or isolated workers

Of the 65 businesses interviewed in relation to this proposal, 12 per cent reported that it would result in a cost to their business, 86 per cent reported that it wouldn't because they already comply or because they don't think it would be applicable to their business, and two per cent were unsure. Of those that said they would face costs, four businesses were able to estimate the cost and the average estimate provided was \$55,774 per year, with estimates ranging between \$6,800 and \$150,000. When averaged across the sample of businesses that provided a cost estimate and after weighting the results according to business size, the average cost to the relevant population of businesses can be estimated at \$7,461 per year.

Of those interviewed in relation to this change (excluding those that said that they were unsure of the cost impact and those from industries that did not face a cost) 18 per cent said that they would face a cost as a result of this proposal. Assuming this proposed change has the potential to affect businesses across select industries, and that the results of the survey are representative, the total number of businesses affected is estimated at 29, 537 (i.e. 18 per cent of all businesses from the following industries: Agriculture, Forestry and Fisheries, Manufacturing, Retail Trade, Wholesale Trade, Public Administration and Safety, and Health Care and Social Assistance). Therefore, the total cost associated with this proposal is estimated at \$220 million per year relative to Option 1.¹⁸⁶

Of those interviewed who said that a consistent approach across states and territories would result in a cost saving, the average estimate provided was \$96 per year, noting that this estimate was weighted according to size. Assuming that approximately one per cent of businesses in the same industries listed above operate in multiple states and territories¹⁸⁷ and that all of these businesses would face a cost saving under this change, it is estimated that this would impact 1,625 businesses across the Victorian economy.¹⁸⁸ The total cost saving is therefore estimated at \$156,090 per year relative to Option 1.

When asked about any changes in safety as a result of this proposal, 46 per cent of businesses anticipated that this change would result in a decrease in illnesses and injuries. 33 per cent of those businesses expected a small impact, 27 per cent a moderate impact, 30 per cent a significant impact, and ten per cent were unsure.

A number of comments were made in relation to this proposal. One business stated that it "wouldn't affect them directly but would be good for the industry [wholesale trade] and that risks are present in this area". A number of other businesses noted that this change could have some benefits but these may not outweigh costs. Another business argued that

¹⁸⁶ A sensitivity analysis of the assumption that one per cent of businesses in Victoria operate in multiple state and territories was conducted. It found that if five per cent of businesses in Victoria operate in multiple state and territories the estimated cost saving per year relative to Option 1 would increase from \$156,090 to \$780,448.

¹⁸⁷ ABS, (2004), Australian Bureau of Statistics Business Register, Counts of Businesses - Summary Tables, Jun 2004, available online http://www.abs.gov.au/ausstats/abs@.nsf/mf/8161.0.55.001

¹⁸⁸ ABS, (2015), *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014* (ABS release no: 8165.0), February 2015

this would be potentially very costly with a final noting that mobile black spots are a problem and work would need to be done with telecommunication companies to fix this.

19.3.7 Require the preparation of an asbestos management plan

Of the 31 businesses interviewed in relation to this proposal, 48 per cent reported that it would result in a cost to their business, 52 per cent reported that it wouldn't because they already comply or because they don't think it would be applicable to their business. Of those that said they would face costs, ten businesses were able to estimate the cost and the average estimate provided was \$9,404 per year with estimates ranging between \$19 and \$42,768. When averaged across the sample of businesses that provided a cost estimate and after weighting the results according to business size, the average cost to the relevant population of businesses can be estimated at \$59 per year.

Based on an analysis of industry subdivisions, it was estimated that up to 256,584 businesses have the potential for the presence of asbestos in the workplace. Under the assumption that the interviews are representative, we estimate that 48 per cent of these businesses (123,160) will face cost as a result of this proposal. Therefore, the total cost associated with this proposal is estimated at \$7 million per year relative to Option 1.

When asked about any changes in safety as a result of this proposal, 36 per cent of businesses anticipated that this change would result in a decrease in illnesses and injuries. 25 per cent of those businesses expected a small impact, 46 per cent a moderate impact, 21 per cent a significant impact, and eight per cent were unsure.

A small number of comments were made in relation to this proposal. Three businesses commented that this is a good idea, two said the costs would likely be very high without putting an estimate down, and two businesses noted that this isn't an effective way to reduce risk.

19.3.8 Introduce requirements concerning electrical safety in hostile operating environments – residual current devices

Of the 65 businesses interviewed in relation to this proposal, 17 per cent reported that it would result in a cost to their business, 81 per cent reported that it wouldn't because they already comply or because they don't think it would be applicable to their business, and two per cent were unsure. Of those that said they would face costs, eight businesses were able to estimate the cost and the average estimate provided was \$31,669 per year with estimates ranging between \$40 and \$250,000. When averaged across the sample of businesses that provided a cost estimate and after weighting the results according to business size, the average cost to the relevant population of businesses can be estimated at \$631 per year.

Of those interviewed in relation to this change (excluding those that said that they were unsure of the cost impact and those from industries that did not face a cost) 32 per cent said that they would face a cost as a result of this proposal. Assuming this proposed change has the potential to affect businesses across select industries, and that the results of the survey are representative, the total number of businesses affected is estimated at 59, 319 (i.e. 32 per cent of all businesses from the following industries: Agriculture, Forestry and Fisheries, Manufacturing, Construction, Transport, Postal and Warehousing, and Public

Administration and Safety). Therefore, the total cost associated with this proposal is estimated at \$37 million per year relative to Option 1.

Of those interviewed who said that a consistent approach across states and territories would result in a cost saving, the average estimate provided was \$119 per year, noting that this estimate was weighted according to size. Assuming that approximately one per cent of businesses in the same industries listed above operate in multiple states and territories¹⁸⁹ and that all of these businesses would face a cost saving under this change, it is estimated that this would impact 1,854 businesses across the Victorian economy.¹⁹⁰ The total cost saving is therefore estimated at \$221,298 per year relative to Option 1.¹⁹¹

When asked about any changes in safety as a result of this proposal, 36 per cent of businesses anticipated that this change would result in a decrease in illnesses and injuries. 25 per cent of those businesses expected a small impact, 46 per cent a moderate impact, 21 per cent a significant impact, and eight per cent were unsure.

A small number of comments were made in relation to this proposal. Two businesses thought that the costs of this proposal could outweigh the benefits.

19.3.9 Introduce a licensing regime for independent asbestos assessors

Five licenced asbestos removalists were interviewed as part of the one-to-one interviews. All five removalists interviewed said that they contract independent asbestos assessors to inspect their work but none of them said this proposal would result in costs to their business. Three businesses noted that any costs would not be met by them directly, instead one suggested that this would be met by the company doing the certificate of clearance. One company estimated that this licence would cost the independent assessors \$15,000, an estimate that was likely made from experience in another jurisdiction. In light of the fact that we were unable to speak to any independent assessors, the estimate of \$15,000 is included as an indicative cost.

Asbestos assessors who undertake monitoring and issue clearance certificates for friable jobs (Class A) and large non-friable jobs (Class A or Class B) are currently accredited by the National Association of Testing Authorities (NATA). The NATA publishes all of their approved accredited laboratories/analysts on their website. There are 22 laboratories/analysts approved to undertake asbestos identification and fibre counting in Victoria.

¹⁸⁹ ABS, (2004), Australian Bureau of Statistics Business Register, Counts of Businesses - Summary Tables, Jun 2004, available online http://www.abs.gov.au/ausstats/abs@.nsf/mf/8161.0.55.001

¹⁹⁰ ABS, (2015), *Counts of Australian Businesses, including Entries and Exits, Jun 2010 to Jun 2014* (ABS release no: 8165.0), February 2015

¹⁹¹ A sensitivity analysis of the assumption that one per cent of businesses in Victoria operate in multiple state and territories was conducted. It found that if five per cent of businesses in Victoria operate in multiple state and territories the estimated cost saving per year relative to Option 1 would increase from \$221,298 to \$1.1 million.

The average cost to businesses is therefore estimated to be \$330,000 per year relative to Option 1.

When asked about any changes in safety as a result of this proposal, four of the businesses anticipated that this change would result in a decrease in illnesses and injuries. One business expected a small impact, two a moderate impact, and one a significant impact.

Two businesses anticipated that the existence of a consistent approach to the OHS Regulations across Australian states and territories would result in cost savings to the business, however were unable to estimate by how much.

A small number of comments were made in relation to this proposal. Four businesses said this was a good proposal for varying reasons. One to improve independence, a second to improve standard of hygienists, a third because they support any harmonisation and the fourth was generally supportive.

19.3.10 Reduce the value of the principal contractor duty threshold from \$350,000 to \$250,000

The reduction in the duty threshold would mean that more principal contractors would be required to comply with duties under construction-related regulations. It is unclear how many additional principal contractors would be affected by the decrease to the threshold. As such, it is not possible to quantify the impact of this proposed change.

19.3.11 Change provision for persons in training to carry out high risk work at a workplace

Under the model WHS Regulations, a trainee is exempted from holding a HRW licence to carry out work if the work is carried out in a course of training. It is understood that this means trainees need to be enrolled in a course, whereas the OHS Regulations accept a trainee who is undertaking training for the purposes of obtaining a high risk licence (r. 3.6.3(1)(a)). In Victoria a trainee can develop some competency in their workplace before enrolling in a VET course for the relevant HRW licence. This change may reduce the flexibility for employers and trainees and has not been quantified.

19.3.12 Include cyclophosphamide as a scheduled carcinogen requiring a licence

Of the four businesses interviewed that deal with cyclophosphamide, three stated that this change would result in costs and the fourth was unsure. Taking into account that one business said they wouldn't have a cost, the average annual cost was estimated to be \$303 per business.

On the basis of the interviews, four out of five hospitals said that they deal with cyclophosphamide. Assuming that the results of this survey are representative, this suggests that 80% of hospitals would be impacted by this proposal. In 2015 there were 316 hospitals in Victoria suggesting that 253 would be impacted by this proposed change. On the basis of these figures the total cost is estimated to be \$76,589 per year.

Only one business believed that the change would result in a decrease in illnesses and injuries. No businesses indicated that a consistent approach would result in any cost savings.

No additional comments were made in relation to this proposed change.

19.3.13 Change the definition of a fall to define risk of a fall as "from one level to another"

Of the 36 businesses interviewed in relation to this option, 31 per cent reported that it would result in a cost to their business, 53 per cent reported that it wouldn't because they already comply and 17 per cent were unsure. Of those that said they would face costs, ten businesses were able to estimate the cost and one wasn't. The average estimate provided by the ten businesses was \$8,573 per year with estimates ranging from \$1,000 and \$36,650. After weighting the results according to business size, the average cost can be estimated at \$10,512 per year. Noting that small businesses reported higher costs on average relative to medium and large businesses, this adjustment for business size increases the estimate of average costs.

In order to provide an illustrative guide as to the overall impact of this option, data from the interviews was used to estimate the impact across all businesses. Based on an analysis of industry subdivisions, it was estimated that up to 246,312 businesses have the potential for the presence of falls hazards in the workplace. This was based on the same analysis of industry subdivisions where falls hazards are likely to be present as mentioned in Section 8.2.2, but also included some additional subdivisions that may be impacted by the increase in scope of the falls Regulations including subdivisions within retail trade, information media and telecommunications, education and training, and other services. Under the assumption that the interviews are broadly representative, it can be estimated that 41 per cent of the 246,312 businesses potentially affected actually have falls hazards in the workplace, and only 31 per cent of those actually faced a cost, suggesting that approximately 31,306 would face a cost as a result of this proposal. The total cost associated with this option can therefore be estimated at \$329 million per year relative to Option 1.

19.3.14 A range of other changes that are also proposed under Option 2

Refer to Section 4.2.3.2 for details.

Part Three – Implementation, evaluation and consultation

20 Implementation plan

This Section describes the activities to finalise the OHS and EPS Regulations following the public comment period and the implementation of the OHS and EPS Regulations once approved by the Minister for Finance.

20.1 Finalise new regulations

The release of the proposed Regulations and the RIS for a 60 day public comment period provides employers, employees, other interested parties and members of the public the opportunity to consider and provide feedback. At the conclusion of the public comment period WorkSafe will review and consider each submission, and take account of the feedback on both the proposed Regulations and the RIS in finalising the Regulations.

WorkSafe will prepare a formal Response to Public Comment document which will detail the comments provided in the Public Comment submissions and a response to those comments.

The Office of Chief Parliamentary Council (OCPC) will then review and settle the Regulations which will then be submitted to the Minister for Finance for approval as the Occupational Health and Safety Regulations 2017 (OHS Regulations 2017) and the Equipment and Public Safety Regulations 2017 (EPS Regulations 2017).

20.2 Implementing the Regulations

20.2.1 Communication

WorkSafe will communicate information about the new regulations to a broad range of stakeholders, including employers, employees, their representatives and the Victorian community.

Once the new regulations are in place, WorkSafe will undertake a range of communication activities to assist stakeholders and the general public to understand and comply with the new regulations. This will include:

- Notification of the making of new regulations through formal communication channels (e.g. the Victorian Government Gazette and a state-wide newspaper)
- The development of accessible information that explains the changes introduced by the new regulations
- The update of existing guidance and development of new guidance to support the new regulations.

WorkSafe will also continue to undertake a range of constructive compliance and enforcement activities, in accordance with its *Compliance and Enforcement Policy*. This includes the provision of information and guidance to assist duty holders to comply, and inspections and investigations, where appropriate, to ensure compliance with the new

regulations. The preparation for implementation will include updating of all relevant WorkSafe policies and procedures, information technology systems, forms and provision of training and/or information sessions to equip all relevant WorkSafe employees with the necessary knowledge of the new regulations and their impact on operational and legal requirements and stakeholders.

20.2.2 Compliance

Enforcement of the Regulations will be conducted pursuant to WorkSafe's Compliance and Enforcement Policy and carried out by WorkSafe Inspectors and Enforcement Group as discussed in Section 2.3.

21 Evaluation strategy

The following evaluation strategy has been developed to ensure the proposed OHS Regulations 2017 remain effective and that there is continuous improvement in health and safety in Victorian workplaces. The OHS Regulations are part of an integrated OHS framework and it can be difficult to separate the impact of OHS Regulations from other parts of the framework. Nonetheless is it is important to evaluate the effectiveness of the approaches taken to the specific hazards and industries covered by the OHS Regulations. This evaluation strategy will assess the effectiveness of the regulations as an integrated part of the OHS framework in meeting the objectives of the Victorian Government in respect of health and safety in the workplace.

21.1 Objectives

The Victorian Government's overall objectives and rationale for government intervention in respect of health and safety in the workplace, is to:

- Prevent injuries, illnesses and fatalities in the workplace; and
- Prevent a serious incident from occurring and impacting on the safety of people in the surrounding area of a workplace such as a major hazard facility or mine.

Evaluating the regulations means evaluating their effectiveness in terms of preventing injuries, illnesses and fatalities and preventing a serious incident occurring that impacts on the safety of people at a major hazard facility or mine.

WorkSafe influences the prevention of workplace injuries, illnesses and fatalities through encouragement and enforcement. Encouragement focuses on safety and prevention through:

- Inspections and advice to workplaces
- Information, education and awareness to workplaces and the community
- Financial incentives for employers.

Enforcement focuses on deterring poor performance and breaches of OHS law through:

- Inspections and enforcement improvement and prohibition notices
- Investigations and prosecutions.

A program logic highlighting the activities, outputs and outcomes underpinning the regulatory objectives is included in Figure 21.1 below. Given the difficulty in separating the varying effects of the OHS and EPS Acts, the OHS and EPS Regulations and different WorkSafe interventions aimed at reducing injuries, illness and fatalities in the workplace, the scope of this program logic framework includes a broad range of WorkSafe activities, not just the administration of the OHS Regulations. That said, this framework does not include activities relating to workers' compensation or return to work programs, neither does it include activities aimed at achieving Worksafe's other corporate objectives, including as they relate to service, sustainability and culture.

The EPS Regulations are not explicitly evaluated as data on incident notifications under the EPS Regulations are not separately identified from notifications under the OHS Regulations. The EPS Act and EPS Regulations impose duties on designers, manufacturers and suppliers of prescribed plant that is used in non-workplaces. These duties mirror the duties in the OHS Act and OHS Regulations and mean that the users of prescribed equipment are afforded the same health and safety protections in relation to design, manufacture and supply. There are limited circumstances where plant is used by someone who is not in a workplace and where upstream duty holders will design, manufacture and supply plant solely for use in non-workplaces. In WorkSafe's view the cost of collecting data separately to allow evaluation of the EPS Regulations is not warranted as evaluation of the OHS Plant Regulations is a reasonable proxy.

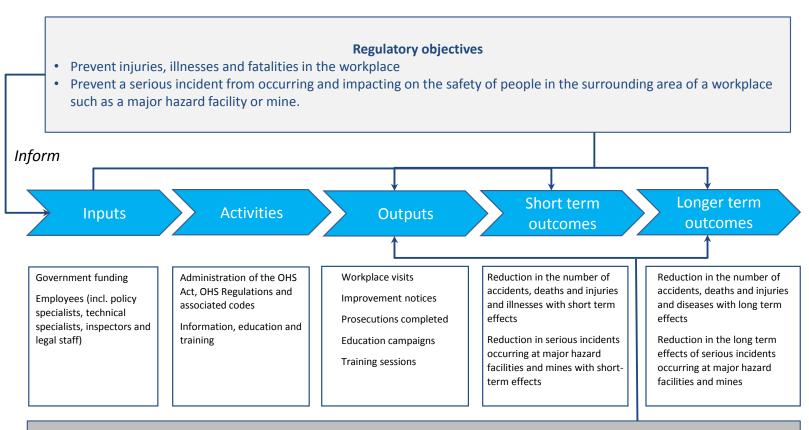


Figure 21.1: Program logic framework for the OHS Regulations 2017

External factors

• Other influences on workplace safety including changes in the structure of Victorian industry, technological changes, cultural changes around safety in the workplace and workers' compensation insurance premiums

21.2 Baseline data

Evaluating the effectiveness of the 2017 OHS regulations requires a baseline to be established. The headline measure of the effectiveness of the OHS framework is claims per million hours worked with a downward trend in the measure indicating an improvement in workplace safety. This measure is one of WorkSafe's key performance indicators and is reported in WorkSafe's Annual Report.

WorkSafe collects a range of data on aspects of the OHS framework which will be used to establish the baseline for evaluating the regulations. The claims and fatalities data is collected in accordance with national standards and will include:

- Number of deaths in the workplace in 2016-17
 - By cause of death
 - By industry
- Number of WorkCover injury and illness claims in 2016-17
 - By agency of injury
 - By period of absence
 - By industry
- Total cost of WorkCover claims in 2016-17
 - By agency of injury
 - By period of absence
 - By industry

The above data is collected separately for each of the Australian states and territories by Safe Work Australia.

In addition to the claims and fatalities data, WorkSafe collects information on the total number of serious incidents occurring at mines and MHFs over the period 2007-08 to 2016-17. This provides a baseline for the number of incidents at mines and MHFs.

There are some limitations in using this data to assess the effectiveness of the regulations for particular hazards and industries as discussed in the individual hazard chapters and summarised in Table 21.1 below.

	No. standardised claims (2014-15)	No. fatalities (2007-2015)	Hazard / Data correlation
Manual Handling	10,513	0	High
Construction	3,205	40	Med ¹⁹²
Plant and High Risk Work	2,390	81	High

¹⁹² An overlap exists with claims and fatalities data from other hazard areas (e.g. falls).

Falls	1,469 ¹⁹³	30	Med ¹⁹⁴
Noise	1,325	0	Low
Hazardous substances, scheduled carcinogens and lead	136	5	Med
Mines	46	1	Med ¹⁹⁵
Asbestos	18	24	Low
Confined spaces	-	2	Med ¹⁹⁶
Major hazard facilities	0	0	High ¹⁹⁷

Source: WorkSafe data.

The limitations arise because the data collected does not correlate neatly with the regulated hazard or because there is a separation in time between exposure to the hazard and the presentation of a claim. Construction and mines are listed as medium because while the claims and fatalities for the industry can be identified there is an overlap between these claims and fatalities and other regulated hazards such as plant and falls. Confined spaces is listed as medium because while the claims data does not capture the presence of a confined space, investigations into fatalities do identify when a confined space is involved.

When a hazard gives rise to an immediate injury, for example injuries associated with plant, the claims data for that time period captures the injuries. However when an illness takes time to develop, such as occupationally induced hearing loss or asbestos related disease, the claims in a given year typically relate to exposure many years prior and therefore do not provide information on the effectiveness of the current regulations with respect to that hazard. Injuries that take time to develop are common in relation to hazardous substances, scheduled carcinogens, lead, asbestos and noise. Asbestos and noise are listed as low as these claims take time to develop while hazardous substances, scheduled carcinogens, and lead are listed as medium as some of these claims can be immediate rather than take time to develop.

21.3 Key performance indicators

The OHS Act imposes the obligation to provide a safe work place. The proposed OHS Regulations primarily provide information on how to comply with the obligations in the Act rather than imposing new or additional obligations on duty holders.

Evaluating the performance of the proposed OHS Regulations separately from the performance of the other elements of the OHS framework (such as the OHS Act,

¹⁹³ Estimate based on the average annual number of claims over a seven year period as data for 2014-15 are not specifically available.

¹⁹⁴ Data does not differentiate height of fall and regulations apply to involuntary falls of more than 2 metres.

¹⁹⁵ An overlap exists with claims and fatalities data from other hazard areas (e.g. plant).

¹⁹⁶ Claims data does not identify whether an injury occurred in a confined space. Fatalities data also does not identify whether fatality occurred in a confined space. However WorkSafe data collected as part of the investigation into a fatality identifies if a confined space is involved.

¹⁹⁷ Claims data is not used to identify a major incident, other information is available so High is assigned on basis of

Compliance Codes, WorkSafe information, guidance, education, training and enforcement activity) is problematic given the interconnections between the elements of the framework. As such the performance of the regulations needs to be considered in the context of Worksafe's overall approach to improving health and safety in Victorian workplaces and its broader monitoring and evaluation framework.

The key performance indicator of the effectiveness of the OHS framework, including the OHS Regulations, is a reduction in the number and severity of workplace injuries, illnesses and fatalities. Data for this indicator is primarily captured from claims lodged under the WIRC Act. WorkSafe has in place targets for reduction in the number and severity (duration and cost) of claims as part of WorkSafe's corporate strategy. The corporate strategy measure is expressed as claims per million hours worked. This is an effective indicator of the overall performance of the OHS framework including the OHS Regulations and will be monitored and reported annually in the WorkSafe Annual report.

Reporting mechanisms in addition to WorkSafe's Corporate Strategy are included in Section 21.4 below. KPIs specific to select hazard areas are included in Table 21.2 below.

21.4 Methodology

The proposed methodology for the collection and analysis of data includes both qualitative and quantitative elements and varies depending on the indicator in question, as follows:

- Injury and illness claims
- Selected hazards
- Fatalities
- Regulatory compliance
- Serious incidents
- Level of cost recovery.

The methodology for these is discussed in more detail below.

21.4.1 Injury and illness claims

The OHS regulations are organised by hazard area. As such the evaluation strategy for every hazard would ideally review the effectiveness of the regulations in reducing the risks of these specific and regulated hazards or, to put it another way, to assess the effectiveness of the risk control measures in the regulations. The difficulty in undertaking this assessment for all of the hazards is that the available data for injuries and illnesses is not assigned to a regulated hazard in all cases. In addition claims data is only a proxy for the effectiveness of risk control measures as it provides no record of near misses or incidents that do not result in a claim being lodged.

Data is collected via the process of workers making claims for work-related injuries or illnesses to support the principal purpose of assessing and managing claims liabilities. The information systematically recorded does not assign a claim to a specific regulated hazard, rather it is assigned to the workplace industry type, occupation, mechanism and 'agency of

injury'. To date this data has been used as a proxy to assess the effectiveness of the regulations by hazards, including industry types, activities and types of events.

There are a number of barriers to making changes to this systematic data collection and recording to more adequately assess the effectiveness of the regulations by hazard type. The data collected is based on a national standard and changing the national standard would require agreement from other states and territories. Collecting additional information from employees and employers during the claims process would impose costs. In addition, as the information is not specific to the assessment and management of claim liabilities and support of injured workers, legislative change may be required to collect this information under the WIRC Act. Injury and illness claims data provides a reasonable measure of the effectiveness of the OHS framework including the OHS regulations for some hazards as detailed in Table 21.1 above, particularly for manual handling and plant where there is a high correlation between the claims data and the hazard. A downward trend in the number of claims for the hazard or regulated industry is an indicator of improved safety. The incidence and trends section of the hazard and regulated industry chapters in part 2 noted downward trends in the number of claims for: manual handling; construction (since 2011-12); plant; noise, hazardous substances, scheduled carcinogens and lead; and mines.

The claims data provides no measure of the effectiveness of the confined spaces regulations. However this is not considered a problem as the key indicator for confined spaces is an absence of fatalities. There have been no Victorian fatalities in confined spaces since 2007-08. It is not proposed to collect any additional data to identify injuries from work in confined spaces.

The claims data includes a category for slips, trips and falls. Manual review of these claims can identify claims that relate to a fall from height. This labour intensive review was undertaken as part of the process to remake the regulations and the data is reported in Chapter 8. However, in most cases the claims data does not identify how far the person fell meaning it is not possible to distinguish between the falls from height that are covered by the Prevention of Falls Regulations (involuntary falls of more than two metres) and those that are covered by the general duties in the Act. In WorkSafe's view altering the claim form to capture data on the height of a fall is not feasible so alternative approaches to capturing this information are proposed.

21.4.2 Selected Hazards

Assessments of injuries and illnesses by hazard will continue to be performed to the extent possible via quantitative analysis of the workplace industry, mechanism and agency of injury information currently obtained in the claims lodgement process. As there are limitations with using the claims and fatalities data for assessing the effectiveness of the OHS Regulations, WorkSafe will collect additional information for specific hazards as described below.

To assess the effectiveness of the OHS framework for the regulated hazards and industries in Table 21.1 a desk-top analysis of the qualitative workplace industry, mechanism and agency of injury information currently obtained in the claims lodgement process will be conducted on relevant claims. The qualitative assessment will enable the identification of quantifiable injury, illness and fatality data at a hazard level. Construction and mines are included as regulated industries. MHFs are excluded from this analysis because the focus is on the prevention of major incidents which is not measured by the claims data. Manual handling, plant, falls, and noise are selected because of the high number of claims. It is acknowledged that the noise claims relate to past noise exposures. This will occur in 2019-20 and 2024-25.

Hazard	Baseline data from 2016-17	Key Performance Indicator (KPI)
Manual Handling	Injury claims for MSD	Reduction in incidence and severity (duration) of MSD claims
Plant	Injury claims where the agency of injury was listed as machinery and plant, mobile plant and transport or powered equipment, tools and equipment	Reduction in incidence and severity (duration) of plant claims
Falls	Injury claims where the agency of injury was attributable to slips, trips and falls with desk top analysis to identify claims for falls from height	Reduction in incidence and severity (duration) of claims for falls from height
Construction	Injury claims in the construction industry	Reduction in incidence and severity (duration) of claims in the construction industry
Mines	Injury claims in the mine industry	Reduction in incidence and severity (duration) of claims in the mine industry
Noise	Injury claims related to hearing loss	Reduction in incidence of claims

Table 21.2: Approach to assessing the effectiveness of the regulations for selected hazards

Source: WorkSafe.

It is not intended to report the injury claims data for hazardous substances, scheduled carcinogens substances, lead, asbestos or confined spaces. The data is not available for confined spaces as discussed above. For the others, while data is available there are only a small number of claims and for a number of these claims the exposures relate to a previous time period.

In addition to the claims analysis above it is proposed to undertake analysis on the height of involuntary falls that result in injuries and the risk controls that are being used when working at heights. This may involve commissioning research and or undertaking surveys.

Manual handling is pervasive in workplaces and injuries from hazardous manual handling represent the largest single group of claims. WorkSafe will commission research to better understand the barriers to eliminating hazardous manual handling risks in the workplace.

WorkSafe will also undertake community surveys that will collect information from employees on their exposure and experience of various workplace hazards. The hazards covered by the OHS Regulations that will be included in the survey include manual handling, falls and plant (operating powered machines, tools or other equipment) because of the prevalence of these workplace hazards and the high number of claims. The survey will also include exposure to hazardous substances and high noise levels. The survey will collect information on exposure to the hazard and the risk control measures that are used in the workplace. Including hazardous substances and noise levels in the survey will indicate the level of exposure to these workplace hazards and the types of controls being used in workplaces. A trend to higher order controls (use of engineering controls rather than administrative controls or PPE) would indicate an improvement in safety. This would be expected to lead over time to a reduction in claims as safety becomes less reliant on behavioural factors.

21.4.3 Fatalities

Worksafe conducts a thorough investigation of all workplace deaths and where appropriate prosecutes identified breaches of the Act and Regulations. It is common for Safety Alerts or other information to be provided following a fatality to increase awareness of a particular hazard and to provide information on risk control measures.

The Coroners Court of Victoria also conducts investigations into certain types of deaths to consider ways that similar types of deaths may be prevented in the future. Where recommendations are received from the Coroners Court, including recommendations about regulatory responses, Worksafe considers and responds to these findings.

An additional analysis will be undertaken to assess the effectiveness of the regulations in preventing workplace fatalities. This will include an analysis of trends and changes in the nature of workplace risk and potential regulatory responses. This evaluation will be conducted at three year intervals by WorkSafe.

21.4.4 Regulatory compliance

WorkSafe inspections of workplaces focus on both education/information provision and enforcement activities. Inspectors' record information on their visits and issue improvement and prohibition notices where warranted. Reviewing this documentation from the perspective of evaluating the regulations is currently resource intensive as a person is required to read each report searching for themes and the reports are written for a different purpose.

Technological developments mean that data analytics could be used to scan and analyse these documents in the future which would allow information collected by inspectors to be more readily used to evaluate the effectiveness of the OHS framework, including the OHS Regulations. WorkSafe will investigate the use of data analytics for analysing the information collected by inspectors. This investigation will include reviewing and potentially revising the information collected by inspectors,

It is proposed that inspections of workplaces will be utilised to assess duty holder's awareness of and compliance with regulations and OHS framework. This information will be analys ed and combined with survey data to improve knowledge on compliance and the effectiveness of WorkSafe's interventions. The outcomes of these assessments will be published with the assessment of effectiveness in 2019-20 and 2024-25.

21.4.5 Serious incidents

Major hazard facilities and mines are required to notify Worksafe of incidents at their sites. Worksafe will continue to review the incidents reported with the frame of effectiveness of the regulations in reducing the risk of a serious incident. Further, Worksafe will continue to appraise documented Safety Management Systems provided by major hazard facilities and mines.

21.4.6 Level of cost recovery

WorkSafe will conduct a cost recovery review of its fees every five years to ensure costs are not over or under recovered, and make adjustments to fee levels as necessary.

21.5 Consultation Plan

The OHS Act establishes the Occupational Health and Safety Advisory Committee (OHSAC). The functions of OHSAC include advising the Board in relation to the operation and administration of the Act and Regulations. Worksafe will consult with OHSAC on the effectiveness of the regulations during their operation and the results of the evaluation approach described above.

21.6 Timelines

The various reporting mechanisms along with their corresponding timing are included in Table 21.3 below.

Table 21.3: Timelines for evaluation strategy

Indicator	Timing
The incidence and severity of workplace injury and illness claims will be monitored and reported in the Worksafe Annual Report	Annually
Workplace fatalities will be subject to detailed analysis in relation to the effectiveness of the regulations to identify potential improvements in the design and use of the regulations	3 year intervals
Cost recovery review of fees	5 year intervals
Assessment of the effectiveness of the regulations for the regulated hazards and industries using claims, fatalities and survey data	2019-20 and 2024-25
Assessment of effectiveness of education/information provision and enforcement activities published	2019-20 and 2024-25

21.7 Responsible agency

The agency responsible for the evaluation strategy is WorkSafe.

WorkSafe as the OHS regulator enforces the OHS laws, undertakes research to grow the state of knowledge and monitors performance against the overall aim of preventing injuries, illnesses and fatalities in the workplace. This evaluation strategy will contribute to

WorkSafe better understanding how injuries, illnesses and fatalities can be prevented in the workplace. The strategy will also improve WorkSafe's understanding of the role of the regulations within the OHS framework.

Appendix A – Detailed list of changes under Option 2

	Policy change proposals	
2007 Regulation number and title	Description of proposal	RIS Section Number
loise		
.2.4 Control of exposure to noise	Remove regulations that detail the matters an employer must consider when providing hearing protectors (such as the nature of the noise in the workplace and the duration of the exposure to noise).	7.4.1.1
.2.5 Written risk control plan	Remove the requirement for a written risk control plan where implementation of a higher order risk control measure (such as substituting the plant for quieter plant or processes) is delayed for six months.	7.4.1.2
.2.12 Audiological examinations	Clarify that the trigger for an audiological examination is a reduction in hearing level of 15db or greater over a two year period, regardless of how many tests are undertaken over the two year period.	7.4.1.3
revention of Falls		
.3.1 Application of Part	Retain the current provision and include a note to clarify that legislative obligations apply to the risk of falls below two metres.	8.4.1.1
onfined Spaces		
.4.4 Suppliers	Remove the duty on suppliers to eliminate the risks arising from the need to enter a confined space.	9.4.1.1
.4.15 Employer to retain entry permits	Remove the requirement for an employer to retain a 'confined space entry permit' for 30 days and replace it with a requirement for an employer to retain the permit: • until the work is completed; or • for 2 years in the event of a notifiable incident.	9.4.1.2
lant		
.5.5 Operator's controls .5.6 Operational stop controls and	Rely on 3.5.5 for design requirements for all operator controls, including operational stop controls.	10.4.1.1
mergency stop devices	Apply regulation 3.5.6 solely to emergency stop devices.	
.5.10 Records and information	No longer require a designer to keep copies of the information provided to the manufacturer	10.4.1.2
.5.10 Records and information (designer) .5.11 Record of standards or engineering rinciples used (designer) .5.14 Records and information manufacturer)	Reduce the time required to keep records from ten years to 7 years	10.4.1.2
.5.16 - General duties (suppliers of plant)	Remove the requirement for suppliers of plant to ensure that the hazard identification and risk control requirements	10.4.1.3

	placed on designers and manufacturers (of plant) have been carried out prior to supplying the plant.	
3.5.13 Information must be obtained and provided (manufactures) 3.5.17 Information must be obtained and provided (suppliers)	Remove the duties on manufacturers and suppliers of plant to obtain information and rely on their duties to provide information.	10.4.1.4
3.5.26 Operator's controls	Rely on 3.5.26 for employer requirements for all operator controls, including operational stop controls.	10.4.1.4
3.5.27 Operational stop controls and	Nely on 5.5.20 for employer requirements for an operator controls, including operational stop controls.	10.4.1.4
emergency stop devices	Make 3.5.27 a regulation that places requirements on employers solely in relation to emergency stop devices.	
Schedule 2	Remove the design registration requirement applying to the supporting structure or foundations of a tower crane and	10.4.1.5
Item 1.2 Tower cranes	replace with specific requirements for the design of the supporting structure or foundation.	
Schedule 2	No longer require design registration of lifts with that are designed for the transportation of goods alone and do not	10.4.1.6
Item 1.4 Service lifts	any operation controls within the lift.	
Schedule 2	Make further exclusions for jet packs, hover boards, rides or devices primarily used as a form of motor sports and	10.4.1.7
Item 1.8 Amusement structures	hovercrafts.	
High Risk Work		
3.6.10 Person may work while application is	Provide that a licence holder who applies for a licence renewal before the licence expires can continue to perform	12.4.1.1
being processed	work until a renewal is granted or until 14 days after a renewal is refused	
3.3.11 Authorisation to carry out	Explicitly provide that WorkSafe may impose conditions on an authorisation	12.4.1.2
assessments of competency		
Schedule 3	Clarify the requirement for a dogging licence by aligning the licence scope statement for a dogging licence (DG licence)	12.4.1.3
Part 1	with the definition of 'dogging'.	
Item 1 Definitions	In addition, the definition of 'dogging' is to be redrafted to provide clarity that a dogging licence is required if either of	
Dogging	the following applies:	
	 the activity requires the application of slinging technique (i.e. judgement); or 	
	 if the load is being moved outside the view of the operator. 	
Schedule 3	Amend the bridge and gantry crane operation licence to provide that the scope of work for a bridge and gantry crane	12.4.1.4
Part 2	operation licence includes the application of load estimation and slinging techniques to move a load with a bridge or	
Item 14 Bridge and gantry crane operation licence	gantry crane.	
Schedule 3	Introduce a new licence class for reach stackers.	12.4.1.5
Part 2		
Reach Stacker		

Schedule 3	Fuch de vellet trucke (leur lift) frem the definition of feat, lift truck	12.4.1.6
	Exclude pallet trucks (low lift) from the definition of fork-lift truck.	12.4.1.0
Part 2		
Item 9 Definitions		
Fork-lift truck		
Schedule 3	Provide that the scope of the work for a vehicle loading crane operation licence (CV licence) includes the application	12.4.1.4
Part 2	of load estimation and slinging techniques to move a load with a vehicle loading crane.	
Item 15 Vehicle loading crane operation	Make a consequential amendment to CV licence encompassments on the slewing mobile crane licence classes.	
licence		
Schedule 3	Remove the requirement for a HRW licence for order-picking forklift trucks where the lifting attachment is not	12.4.1.7
Part 2	capable of lifting 900mm or more.	
Item 27 Order-picking fork-lift truck		
operation licence		
Schedule 3	Consolidate and streamline boiler operation licences by adjusting the 3-tier boiler licence scheme to only 2 licence	12.4.1.8
Part 3	types (standard and advanced).	
Items 29, 30 and 31		
Boiler operation licence classes		
Schedule 4	Expand the exception for boilers with 4.6 square metres heating surface used in agriculture to all boilers up to five	12.4.1.9
Item 2.1 Boilers	square metres regardless of the industry in which they are used.	
Hazardous Substances		
1.1.5 Definitions	Align this definition with model WHS laws definition in regards to which revision of GHS to reference	13.4.1.2
GHS		
4.1 Hazardous substances	Remove references to the Approved Criteria/HSIS (and associated terminology), and replacing these with the	13.4.1.1
	equivalent GHS terminology.	
4.1.7 Review and revision of MSDS	Specify that MSDS does not need to be reviewed if the manufacturer or supplier of a hazardous substance has not	13.4.1.4
	supplied the hazardous substance to any person or premises for a period of five years since the MSDS was last	
	prepared.	
4.1.10 Recognition of other labelling	Amend the AgVet labelling requirements to align with the WHS approach. Currently this would involve continuing to	13.4.1.3
systems (AgVet labels)	allow for APVMA approved labels but requiring GHS hazard and precautionary statements.	
Scheduled Carcinogenic Substances		
4.2.3 Requirement to hold carcinogens	Clarify that the exemption is limited to suppliers who store these substances for short terms only.	13.4.1.5
licence	, , , ,	-
Asbestos		
Division 5 Asbestos in workplaces	Allow an employer or person who manages or controls a workplace to assume asbestos is not present if:	14.4.1.1
		_

Division 6 Demolition and refurbishment where asbestos is present	 the building, structure, ship or plant was built or made on or after 31 December 2003; and asbestos has not been identified; and asbestos is not likely to be present 	
Division 5 Asbestos in workplaces Division 6 Demolition and refurbishment where asbestos is present	Make Division 5 and Division 6 applicable regardless of whether there is fixed and installed asbestos present at the workplace. The Divisions will now apply to workplaces where asbestos is "present".	14.4.1.2
Division 7 Removal of asbestos	Incorporate the Dangerous Goods Asbestos Order 2007 into the Regulations.	14.4.1.3
Division 7 Removal of asbestos	Allow Class B removal of all forms of non-friable asbestos. Allow Class B removal of Asbestos- contaminated dust if the removal does not exceed ten minutes in total, and in a cumulative sense does not exceed one hour in seven days or, where an independent person determines that half the asbestos exposure standard is not likely to be exceeded during the removal process.	14.4.1.4
4.3.49 Provision of information about proposed asbestos removal work 4.3.90 Employers in immediate and adjacent areas to be informed	 Require a person who commissions asbestos removal work (licenced and limited non-licenced) to inform employers and other persons occupying premises in the immediate and adjacent areas of the removal work Clarify that in the context of limited asbestos removal work (r. 4.3.49) performed on a domestic premises, the person who commissioned the work is the employer or self-employed person Require an employer who has been informed that licenced removal work will be undertaken in immediate and adjacent areas to inform their employees (r. 4.3.90). 	14.4.1.5
1.3.59 Notice of medical practitioner 1.3.80 Notice of medical practitioner 1.3.111 Notice of medical practitioner	Remove requirements on duty holders performing asbestos removal work to notify WorkSafe of the name and contact details of registered medical practitioners engaged to undertake medical examinations.	14.4.1.6
I.3.61 Persons not to perform asbestos emoval work unless licensed Schedule 7 Information required to be ncluded in an asbestos control plan	Create flexibility by allowing a Class A asbestos licence holder to engage an independent contractor who operates an excavator. The contractor must be supervised by the licence holder and the asbestos removal supervisor. Consequential amendment to asbestos control plans to require the names of any contractors engaged by the licence holder	14.4.1.7
Schedule 8 Information required to be included in a notification of asbestos removal work	 Makes changes to Schedule 8 as follows: Remove item 12 (Details of training and experience of individual employees) and item 13 (Date of asbestos register) Include asbestos contaminated dust in item 7 (whether the asbestos is friable or non-friable) given incorporation of the DGO 2007 Include the number of persons in item 11 (number of employees) given the proposal to allow independent contractors (operators of excavators specifically) to perform asbestos removal work. 	14.4.1.8
Lead		
4.4.5 Medical examinations and biological monitoring	Remove the requirement for haematocrit correction during biological monitoring of lead.	13.4.1.6

4.4.4 Authority may determine lead process	Allow this item to be a reviewable decision	13.4.1.8
Construction		
(new) Emergency procedure	Add new provision which requires employers to develop emergency procedures where construction work is being undertaken and there is a risk of persons becoming engulfed by soil or other material.	15.4.1.3
Major Hazard Facilities		
5.2.9 Emergency plan	Add a new requirement to provide municipal councils involved in the preparation of the emergency plan with a copy of the parts of the emergency plan relating to the off-site consequences of a major incident occurring.	16.4.1.6
5.2.17 Review of Safety Case	Following revision of a safety case, provide flexibility to an operator to either send to WorkSafe a copy of only those sections that have been revised or a copy of the entire safety case. Add a new power to allow WorkSafe to request a revised safety case as a consequential amendment arising from the change.	16.4.1.3
5.2.27 Operators of certain facilities to notify Authority	Require a facility operator to notify WorkSafe where materials are present in a quantity exceeding ten per cent of their threshold (i.e. to remove the current 'upper limit' that requires notification above ten per cent but less than threshold).	16.4.1.2
Schedule 9 Materials at Major Hazard Facilities (and their Threshold Quantity)	Revise the list of materials and threshold quantities in Schedule 9 that determine whether a facility is defined as an MHF to accommodate GHS and ensure the list of materials and threshold quantities reflects the current state of knowledge of the risks associated with the mass storage and processing of materials.	16.4.1.1
Schedule 12	Amend clause 2.2 to remove the need for demographic information to be presented graphically.	16.4.1.5
Additional matters to be included in Safety Case	Insert a new requirement at clause 2.3 to provide seismic data where relevant to the risk of a major incident at an MHF.	16.4.1.4
	Expand clause 8 to require a summary of any notifiable incidents	
Mines		
5.3.2 What is a mining hazard?	Consolidate the list of hazards to be considered when identifying a mining hazard with the Model WHS Regulations list of principle mining hazards, retaining the remaining OHS factors.	17.4.1.1
5.3.11 Who may enter a mine	 Introduce flexibility for young workers by allowing: An apprentice or trainee over 16 years but under 18 years to work in an underground mine if they are under direct supervision (direct supervision will be defined) A person under the age of 16 years to work at the mine but not able to carry out work in any open cut workings or in an underground mine. 	17.4.1.2
5.3.18 Communication in the event of an employee working alone	Replace the requirement for an employer to ensure that there are available means for 'constant communication' to a requirement to have 'effective communication' available for employees who are working alone at an isolated location at a mine.	17.4.1.3
5.3.30 Working Environment	To redraft the requirement to ensure air is maintained at a safe level 'throughout the mine' to 'areas in the mine in	17.4.1.4

	which persons work or travel' (sub regulation (1) (a)).	
5.3.34 Emergency plan	Amend sub regulation (5) to also require mine operators to forward a copy of the emergency plan to any municipal	17.4.1.5
	involved in the preparation of the plan.	

	Technical, consequential and other proposals
2007 Regulation number	Description of proposal
and title	
Introductory Matters	
1.1.6 Determinations by the Authority	Add a determination of a prohibited hazardous substance for the purposes of regulation 4.1.13 and a determination of a hazardous substance for the purpose of regulation 4.1.14(1)(c)
Manual Handling	
3.1 Manual Handling	Change the title of the chapter to Hazardous Manual Handling
1.1.5 Definitions hazardous manual handling manual handling object	Redraft the definition to incorporate the definitions of 'manual handling' and 'object'. Streamline the definition by making the following proposed changes to the definition: • removal of the word 'sustained' in relation to movements (1.1.5 'hazardous manual handling'(a)(iii)) • removal of the reference to 'repetitive' in relation to posture (1.1.5 'hazardous manual handling'(a)(ii))
3.1.1 Hazard Identification	Remove the provision that specifies that an employer can identify tasks in a class, where the tasks are similar, and this does not result in any greater, additional or different risk to health and safety than if the identification were carried out for each individual task.
3.1.2 Control of risk	Amend the wording of 3.1.2(3) to specify that if an employer has complied with sub regulations (1) and (2) as far as reasonably practicable and a risk of MSD remains, the employer must reduce that risk by the use of information, instruction and training.
Noise	
3.2.8 Record of determinations	Amend 'as long as is applicable' in sub 2 to ' as long as it remains relevant
3.2.10 Acquisition of plant	Remove the provision for employers to have regarded to sound levels in new or additional plant.
3.2.14 Test results and exam reports	Amend 'as long as they are applicable' in sub 1 to 'while the employee is employed by the employer'
Plant	
3.5.41 Lifts	Remove sub regulation 3.5.41(3) and rely on the general duties imposed on employers by the OHS Act, supported by guidance in the proposed plant compliance code and/or other guidance material.
Schedule 2	Amend Schedule 2 as follows:

Plant Designs and Items of Plant to be Registered	- Reach stackers: explicitly exclude from requirement to design register.
hant besigns and items of hant to be registered	- Replace 'safe working load' terminology with 'rated capacity' where used in relation to gantry cranes, bridge cranes and
	mobile cranes, to reflect more current terminology.
High Risk Work	
1.1.5 Definitions	Update the definition of competency standard removing references to the 2006 National Standard and instead refer to the
competency standard	standard set under the unit of competency for the specified VET course for the licence.
3.6.7 How to obtain an assessment of competency	Include new definitions for the terms 'specified VET course' and 'VET course'
6.1.9 Additional information to be included in licence applications	Require a licence application to include a satisfactory notice of assessment and remove references to statement of attainment
3.6.5 Person in training to be under direct supervision	Clarify the responsibility of an employer to supervise trainees
3.6.3 Exceptions	Clarify the exceptions where a HRW licence is not required (exception to regulations 3.6.1 and 3.6.2)
Schedule 3	Include the operation of a reach stacker in a CN licence
Part 2	
Item 16 Non-slewing mobile crane operation licence	
Schedule 3	Each slewing mobile crane licence class to include the operation of a reach stacker.
Part 2	
ltems 17, 18, 19 & 20	
Hazardous Substances	
4.1.14 Application of Subdivision	Remove references to the HSIS, which is a data base of substances which are deemed to be hazardous. Require an employer to
	assess whether a substance is hazardous.
4.1.27 Atmospheric monitoring	Remove 4.1.27(1)(b) on the grounds that it duplicates the remaining 'catch all' trigger at 4.1.27(1)(a)
4.1.13 Prohibited hazardous substances	Remove reference to National Model Regulations for the Control of Workplace Hazardous Substances while retaining the
4.1.30 Health surveillance	current scope of the Victorian regulations.
	The National Model Regulations for the Control of Workplace Hazardous Substances (old model regulations) are referred to in
	the current Victorian OHS regulations. The old model regulations are referred to for the purposes listing substances which are
	prohibited hazardous substances (4.1.13) and listing substances requiring health surveillance for employees (4.1.30(1)(a)(i))
Asbestos	
Division 4 Prohibitions under the Dangerous Goods	The prohibitions in this Division are made under the DG Act.
Act 1985	OCPC have advised that the OHS Act does not appropriately empower the regulations to be made under any authorising Act
	other than the OHS Act. Amendments are proposed to address these concerns.
New regulation	Clarify that an independent person must not have a conflict of interest in carrying out their functions.
Independent person	
Lead	

1.1.5 Definitions	Propose to amend the blood lead level definition to display the concentration of lead expressed in both µg/dL and umol/L
Blood lead level definition	Including both units of measurement will improve consistency with Model WHS Regulations.
1.1.5 Definitions	Adopt WHS terminology – lead-risk work
Lead-risk job	
Construction	
1.1.5 insert definition	Move the definition of 'construction induction card' from 5.1.24(2), include in the definition section 1.1.5 of the regulations and
Construction induction card	make consequential changes resulting from removing the registration requirement
1.1.5 Definitions	Currently in regulation 5.1.2 "construction work" incudes demolition of a building or a structure. "High risk construction work"
Demolition	in regulation 5.1.3 includes construction work involving demolition. The definition of demolition in regulation 1.1.5 currently
	states "the complete or partial dismantling of a structure by planned and controlled methods or procedures".
	Make drafting changes to ensure better consistency and clarity.
	The definition of "structure" in the Construction Part of the regulations does not explicitly include a building. Building and
	structure are referred to separately in the OHS Act and throughout the existing OHS Regulations. To include a reference to
	'building' in the definition of structure may have unintended consequences so it proposed to change the definition of
	"demolition" in the regulations.
5.1.2 What is construction work?	Amend sub regulation (3)(b) and revise the example after sub regulation(2)(c) to make clear that it applies if the prefabrication
	of elements is done other than at a place specifically established for the construction project
5.1.5 What is a safe work method statement?	A minor change is proposed to update the terminology by replacing the words 'the manner in which with more modern
	language.
5.1.8 Review of risk control measures	Redraft subregualtion (1) to ensure consistent with duties under the OHS Act and other similar provisions within the
	regulations.
5.1.13 Application of Subdivision	Revise this regulation for greater consistency with section 11 of the Building and Construction Industry Security of Payment Act
	2002.
5.1.15 Signage of principal contractor	Redraft these duties to ensure consistency with duties under the OHS Act.
5.1.16 Health and Safety co-ordination plans	
5.1.17 Content of health and safety co-ordination	
plans	
5.1.18 Health and safety co-ordination plans available	
for inspection	
5.1.20 Construction induction training to be provided	Remove the requirement of a person needing to be registered and instead refer to a person being required to hold a CI card as
	evidence that they have completed construction induction training.
5.1.21 Requirement to be registered	The requirement that a person must not perform construction work unless they registered or taken to be registered will no
	longer apply and will be replaced by a requirement to hold a current induction card in order to perform construction work.

5.1.22 Employer must not allow an unregistered employee to perform construction work	The requirement that an employer must not allow a person to perform construction work unless they registered or taken to be registered will no longer apply and will be replaced by a requirement to hold a current induction card in order to be allowed to perform construction work.
5.1.23 Temporary exemption	In addition to the current exemptions the circumstances in which a person is currently taken to be registered under regulation 6.2.18 are now captured as circumstances in which a person is exempted from the requirement to hold a construction induction card under regulation 5.1.23.
5.1.24 Offence to refuse to accept a construction induction card	Amendments to this provision are necessary to reflect that workers will now be required to hold a construction induction Card, rather than be registered.
	Given the definition of construction induction card spans more than one regulation in Part 5.1 it is considered more appropriate to move it to regulation 1.1.5. It also requires an amendment to the definition so it no longer includes those circumstances specified in current sub-regulations 5.1.24(2)(b)-(d) which are now proposed to be included in the exemption regulation 5.1.23.
	As a result the provision has been redrafted so that an employer must recognise a current construction induction card (now defined in 5.1.23) as well as the information previous listed in 5.1.24(2)(b) to (d)
5.1.9 Safe work method statement required for high risk construction work	Re-drafting the provisions concerning safe work method statements in line with the drafting approach in the falls regulations in Part 3.3 to improve consistency and clarity
Division 4 Registration to perform construction work	It is proposed that the duties and powers specified in the current regulations 6.2.15 - 6.2.21 be moved to Part 5.1 - Construction with consequential amendments resulting from the removal of the requirement to be registered or taken to be registered to undertake construction work.
6.2.31 Evidence of registration to be kept available	It is proposed that the duties specified in the current regulations 6.2.31 be moved to Part 5.1 - Construction with consequential amendments resulting from the removal of the requirement to be registered or taken to be registered to undertake construction work.
New provisions	These new provisions ensure that equivalent duties and powers currently contained in Part 6.2 Division 6 and regulation 6.2.32
Authority may cancel a construction induction card	applying as a result of the registration process will be included in Part 5.1 - Construction. These duties and powers are
based on false and misleading information	associated with Registration generally (not specific to CI registration) so they have not been moved as they still apply to other
Authority may cancel a construction induction card on request	Registration processes.
Changes of information provided - construction	The propose new regulations mirror the regulations specified above with consequential amendments made as a result of the
induction	requirement to be registered or taken to be registered to undertake construction work being removed.
5.1 Construction	Consequential amendments arising from the removal of construction registration duties
Major Hazard Facilities	
1.1.5 Definitions	Amend the definition of 'threshold quantity' to make clear that it means either the threshold quantity of a specific material as

Threshold quantity	determined under clause 3 of Schedule 9, OR the aggregate threshold quantity of 2 or more materials as determined under
	clause 4 of Schedule 9.
5.2.5 Safety Management System	For ease of reference, consolidate the various requirements for a Safety Management System (SMS) into one place in Schedule
	10.
	Retain the core duty to establish and implement a SMS within the main body of the Regulations.
5.2.15 Content of Safety Case	For ease of reference, consolidate the various requirements for a Safety Case into one place in Schedule 12.
	Retain the core duties to prepare and revise a Safety Case within the main body of the Regulations.
Schedule 10 Additional matters to be included in SMS	Remove requirement to include a 'description' or 'statement', relating to procedures and principles, in the SMS and instead
	focus on the inclusion of the actual procedures and principles to ensure safe operation of the MHF.
Schedule 10 Additional matters to be included in SMS	Clarify the current cross-referencing requirement which exists to prompt MHF operators to consider the impact of any changes
	to the SMS on other obligations.
Schedule 11 Matters to be included in Emergency Plan	Amend the regulations to require the emergency plan to include Emergency planning measures for the protection of
	emergency personnel to improve safety outcomes.
Schedule 10 Additional matters to be included in SMS	Add SMS content requirements in 5.2.5(3)(d)(e) & (f) to Schedule 10
Mines	
5.3.1 What is a mine?	Consequential amendment to encompass prospecting and retention licences within the scope of regulation 5.3.1. These
	licences were introduced under a 2010 amendment to the Minerals Resources (Sustainable Development) Act 1990
5.3.34 Emergency plan	Redraft sub regulation (2) so that duty is for operators to 'immediately implement' the emergency plan in the event of an
	incident involving a significant risk of serious injury or death.
Licensing & Registration	
6.1.24 Authority may impose terms and conditions	Major Hazard Facilities
	Make explicit the ability for WorkSafe to impose terms and conditions on a transfer of a Major Hazard Facility licence to
	improve transparency.
6.1.1 Matters to be included in licence applications	Remove the mechanism for conversion of old certificates (i.e. certificates of competency and older certificates issued under
	former legislation) to current HRW licences. HRW licences replaced certificates of competency (CoCs) in 2007.
6.1.13 Additional information to be included in licence	Broaden the required information in an application for an asbestos removal licence to include a declaration as to whether or
application	not the applicant has ever been found guilty of an offence under relevant Environment Protection laws (where that offence
	relates to the transport or disposal of asbestos).
6.1.44 Grounds of suspension or cancellation	Clarify the circumstances in which WorkSafe can suspend or cancel a licence
Administration & Exemptions	
7.1.3 Specific notifications	Major Hazard Facilities: moves the notification duty in 7.1.3(1)(c) to Part 5.2 with the other MHF notification duties.
7.2.10 Notice of exemptions to be given to individual	Amend the exemption notice provisions to include a timeframe of 14 days to provide applicants with information and

applicants	documentation following a decision in connection with an exemption application, including:
7.2.13 Notice of refusal	a) providing a copy of the exemption to the applicant; or
7.2.14 Variation or revocation of exemption	b) notifying the applicant in writing of the reasons for the refusal to grant an exemption; or
	c) giving written notice of a variation or revocation of the exemption, to the person to whom the exemption applies.

Equipment (Public Safety) Regulations	
2007 Regulation number	Description of proposal
and title	
305 – Operator's controls and 306 – Operator stop	To set out the design requirements for emergency stops in a separate regulation.
controls and emergency stop devices	Replace the requirement for multiple controls to be of the 'stop and lock-off type' and for each stop control to be reset after a stop control has been activated, with a requirement that the emergency stop devices must be of the type that cannot be restarted after an emergency stop control has been used unless that particular device is manually reset and the start function is manually activated.
310 – Records and information	Remove the requirement on a designer to keep a copy of information provided to the manufacturer.
310 – Records and information, 311 – Record of standards or engineering principles used and 404 – Records and information	Decrease the time that designers and manufacturers are required to keep records from 10 years to seven years.
403 – Information must be obtained and provided and 603 – Information to be obtained and provided	Streamline the information process by removing the requirement on manufacturers and suppliers to obtain information.
403 – Information must be obtained and provided	Explicitly require a manufacturer to pass on any revised information that the designer provides to the manufacturer as a result of the manufacturer identifying a hazard during manufacturing process.
501(1) – General duties and 602(1) – Definitions	Remove the general duties imposed on importers and suppliers of prescribed equipment and rely on the general duties imposed by section 8 of the Equipment (Public Safety) Act 1994 (EPS Act). Note that it is proposed to retain the duties on importers and suppliers under 501(2) and 602(2).
607 – Supplier of lifts for domestic premises to notify Authority	Remove the requirement for suppliers to notify WorkSafe of lifts installed in domestic premises to align with the OHS Regulations which no longer require items of plant to be registered by WorkSafe.
Part 8 – Notification of prescribed equipment design	Insert a provision to expressly recognise a plant design registration under the OHS Regulations as equivalent to a prescribed

	equipment design notification.
Part 8 – Notification of prescribed equipment design	To further align the administrative provisions where appropriate, with those in the OHS Regulations, such as providing that a person making notification must include any proof of identity required by WorkSafe.
903 – Notice of dangerous consequence	For consistency with the OHS Regulations, include self-erecting tower cranes in the list of equipment covered by the notification requirement set out in this regulation.
905 – Preservation of site	More closely align the site preservation requirements with those under the OHS Act by requiring that a site is preserved if an incident results in death or serious injury
Schedule – Prescribed equipment designs to be notified	 Explicitly specify that self-erecting tower cranes are prescribed equipment requiring design notification consistent with Schedule 2 of the OHS regulations and align with the following proposed changes to Schedule 2: service-type lifts (i.e. lifts with lift cars that are designed for the transportation of goods alone and which do not have any operational controls within the lift car); reach stackers; further amusement structures - jet packs; hover boards; rides or devices primarily used as a form of motor sports; and hover crafts; the base of a tower crane and crane ties. Note: Design registration will continue to apply to the tower crane itself.
Roll-over protection on tractors	Include a supplier duty in relation to roll-over protection on tractors that is equivalent to regulation 3.5.18 of the OHS Regulations.

Appendix B – Stakeholder consultation

Overview of WorkSafe's stakeholder engagement

In July 2013 WorkSafe established ten stakeholder reference groups (SRGs) to support the review of corresponding chapters within the OHS Regulations, which relate to specific safety topics and hazards.

The SRGs were convened to provide WorkSafe's key stakeholders with the opportunity to have input into the development of the Regulations and Codes, and provide a mechanism for WorkSafe to gather, understand and consider stakeholder feedback during the development process.

The SRGs are comprised of employee, employer and government representatives drawn from WorkSafe's established OHS Stakeholder Reference Group, and relevant Victorian government agencies.

WorkSafe has undertaken a significant amount of stakeholder engagement throughout the review, including over 220 hours of face to face engagement with stakeholders through 61 topic specific SRG meetings.

An additional 73 stakeholder organisations have been engaged throughout the review to raise their awareness and provide an opportunity to comment on their experience with the current regulations and suggestions for their improvement.

A dedicated public SRG website was established to provide SRG members with information about the progress of the review and regulatory change proposals throughout the life of the project.

The purpose of the topic-specific SRGs is to provide key stakeholders with the opportunity to provide input into the development of the regulations and codes and to enable WorkSafe to gather, understand and consider feedback during the development of the regulations and codes.

Membership of the SRGs was determined according to the following principles:

- Tripartite representation including employee, employer and WorkSafe representatives.
- Membership may also include individuals invited at the request of WorkSafe, who have relevant experience in the subject area being considered by the SRG.
- Representatives should be selected on the basis of the expertise that they have to contribute to the topic.

WorkSafe invited WorkSafe's OHS stakeholder coordinators from the Victorian Trades Hall Council (VTHC) and the Victorian Congress of Employer Associations (VCEA) to each nominate up to five members to represent employee and employer organisations, through

a mechanism agreed amongst themselves, with a maximum of one member representing each organisation.

The role of the SRG members was to:

- Comment on the effectiveness and workability of proposals
- Make comments on proposals for WorkSafe's consideration
- Suggest alternative proposals where appropriate
- Contribute constructively
- Advise when a personal position, rather than an organisational position, is being expressed.

Matters raised by stakeholders during SRG meetings

General matters

The General Matters SRG was established for the purposes of reviewing Chapter 1 -Introductory matters, Chapter 2 -General Duties and Issue Resolution, Chapter 6 -Licensing and Registration, and Chapter 7 -Administrative Matters and Exemptions of the OHS Regulations, as well as any overarching matters.

General Matters SRG members:

- Australian Nursing and Midwifery Federation of Victoria (ANMF)
- Master Builders Association of Victoria (MBAV)
- The Australian Industry Group (AiGroup)
- VCEA
- Victorian Employers Chamber of Commerce and Industry (VECCI)
- VTHC.

Two meetings were held on the following dates:

- 5 February 2015
- 19 March 2015.

Key matters raised during these meetings include:

- General duties
- Generic hierarchy of control and Generic review of risk control
- Overarching duty to identify hazards
- Involving health and safety representatives in consultation
- Issue resolution
- Requirement for persons to 'meet'
- Licensing and registration
- Five year licences Carcinogens licence, MHF licence, Asbestos removal licence, High risk work licences
- Administrative matters and exemptions
- Exemptions.

Manual Handling

The Manual Handling (OHS Regulations Reform) SRG was established for the purposes of reviewing Part 3.1 – Manual Handling Regulations of the OHS Regulations.

Manual Handling (OHS Regulations Reform) SRG members:

- VTHC
- VCEA
- ANMF
- Australian Workers Union (AWU)
- Australian Manufacturing Workers Union Vehicles division (AMWU)
- Australasian Meat Industry Employees Union (AMIEU)
- Civil Contractors Federation (CCF)
- Housing Industry Association (HIA)
- Maritime Union of Australia (MUA)
- AiGroup
- Victorian Automobile Chamber of Commerce (VACC)
- VECCI.

Eight meetings were held on the following dates:

- 8 July 2013
- 30 July 2013
- 27 August 2013
- 10 September 2013
- 8 October 2013
- 29 October 2013
- 27 July 2014
- 29 October 2014.

Key matters raised during these meetings include:

- Scope of the manual handling chapter
- Meaning of 'task'
- Identifying a 'class of tasks'
- Risk factors.

Prevention of Falls

The Prevention of Falls SRG was established for the purposes of reviewing Part 3.3 - Prevention of Falls of the OHS Regulations.

Prevention of Falls SRG members:

CCF

- Construction, Forestry, Mining & Energy Union Construction and General Division Victorian Branch (CFMEU)
- Electrical Trade Union (ETU)
- Health & Community Services Union (HACSU)
- MBAV
- Plumbing Trades Employees Union (PTEU)
- AiGroup
- VECCI
- VCEA
- VTHC.

Two meetings were held on the following dates:

- 19 March 2015
- 19 August 2015.

Key matters raised during these meetings include:

- Definition of fall
- Terminology used in hierarchy of control and ranking of controls
- Working alone.

Confined Spaces

The Noise and Confined Spaces SRG was established for the purposes of reviewing Part 3.2 – Noise Regulations and Part 3.4 – Confined Spaces Regulations of the OHS Regulations.

Noise and Confined Spaces SRG members:

- Air Conditioning and Mechanical Contractors' Association (AMCA)
- AWU
- CCF
- CFMEU
- AiGroup
- VECCI
- VCEA
- VTHC.

Four meetings were held on the following dates:

- 20 August 2014
- 1 October 2014
- 10 December 2014
- 26 February 2015.

Key matters raised during these meetings include:

• Compliance costs versus safety benefits

- Entry permits record keeping requirements
- Supplier duties.

Plant and HRW

The Plant and High Risk Work SRG was established for the purposes of reviewing Part 3.5 – Plant Regulations and Part 3.6 – High Risk Work Regulations of the OHS Regulations.

Plant and High Risk Work SRG members:

- AMCA
- AMWU
- CCF
- CFMEU
- AiGroup
- MBAV
- VTHC
- VCEA.

Eight meetings were held on the following dates:

- 28 November 2013
- 27 February 2014
- 15 April 2014
- 29 May 2014
- 26 June 2014
- 5 August 2014
- 16 October 2014
- 11 December 2014.

Key matters raised during these meetings include:

- Plant design registration
- Suppliers of plant
- Information and record-keeping
- Control of risks to people travelling in lifts
- Operator's controls and emergency stop devices
- Guarding
- HRW requiring a licence
- Relevant competency standards
- Integrity of the HRW licencing scheme.

Hazardous Substances, Scheduled Carcinogenic Substances and Lead

The Hazardous Substances, Scheduled Carcinogenic Substances and Lead SRG was established for the purposes of reviewing Parts 4.1 - Hazardous Substances, 4.2 - Scheduled Carcinogenic Substances and 4.4 - Lead of the OHS Regulations.

Hazardous Substances, Scheduled Carcinogenic Substances and Lead SRG members:

- AMC
- AMWU
- Plastics and Chemicals Industries Association (PACIA)
- AiGroup
- VECCI
- VCEA
- VTHC.

Six meetings were held on the following dates:

- 22 November 2013
- 5 February 2014
- 19 March 2014
- 7 May 2014
- 26 August 2014
- 22 October 2014.

Key matters raised during these meetings include:

- The method of classifying hazardous substances
- Labelling requirements for agricultural and veterinary chemicals
- Overlap with regulation of dangerous goods (storage and handling)
- Scope of restricted hazardous substances
- Blood lead removal levels and workplace exposure standards
- Explored opportunities to reduce regulatory burden
- Requirement to hold carcinogens licence exception.

Asbestos

The Asbestos (OHS Regulations Reform) SRG was established for the purposes of reviewing Part 4.3 – Asbestos of the OHS Regulations.

Asbestos (OHS Regulations Reform) SRG members:

- AWU
- Construction, Forestry, Mining & Energy Union Construction and General Division Victorian CFMEU
- HIA
- MBAV

- Master Plumbers & Mechanical Services Association of Australia (MPMSAA)
- PTEU
- VECCI
- VCEA
- VTHC.

Six meetings were held on the following dates:

- 3 September 2014
- 10 December 2014
- 18 February 2015
- 25 March 2015
- 3 June 2015
- 25 June 2015.

Key matters raised during these meetings include:

- Incorporating the Dangerous Goods Asbestos Order 2007
- Removal by Class A removalists only One licence class structure
- Limited non-licensed asbestos removal
- Independence and competence of independent persons issuing clearance certificates
- Asbestos registers
- Independent contractors.

Construction

The Construction SRG was established for the purposes of reviewing Part 5.1 – Construction of the OHS Regulations.

Construction SRG members:

- CCF
- CFMEU
- Housing Industry Association (HIA)
- MBAV
- PTEU
- AiGroup
- VCEA
- VTHC.

Six meetings were held on the following dates:

- 28 August 2014
- 28 October 2014
- 12 February 2015
- 24 March 2015

- 4 June 2015
- 6 August 2015.

Key matters raised during these meetings include:

- Scope of Part 5.1 construction regulations
- Threshold for principal contractor duties
- Falling objects
- Safe Work Method Statement duties for high risk construction work
- Construction Excavation Duties
- Emergency response plans
- Construction induction (CI) training and CI cards.

Major Hazard Facilities

Two Major Hazard Facilities SRGs were established to review Part 5.2 - Major Hazard Facilities of the OHS Regulations.

Major Hazard Facilities SRG members:

- AWU
- PACIA
- AiGroup
- VCEA
- VTHC.

Major Hazard Facilities SRG (Government and Emergency Services) members:

- Country Fire Authority (CFA)
- Metropolitan Fire and Emergency Services Board (MFESB)
- Police Association of Victoria (PAV)
- Victoria Police
- VCEA
- VTHC
- Victoria State Emergency Service Authority (VSESA)
- Victorian Water Industry Association.

Five meetings were convened for both SRGs on the following dates:

- 11 November 2013
- 16 February 2014
- 12 March 2014
- 8 May 2014
- 29 April 2015.

Key matters raised during these meetings include:

• Currency and scope of Schedule 9 — Major Hazard Facilities

- Re-notification obligation
- Clarification of 'intermediate temporary storage'
- Registration after a licence refusal
- Scope of emergency planning requirements.

Mines

The Mines SRG was established for the purposes of reviewing Part 5.3 – Mines of the OHS Regulations.

Mines SRG members:

- VTHC
- VCEA
- AWU
- CFMEU
- Minerals Council of Australia (MCA)
- National Gypsum Miners Association (NGMA)
- Prospectors and Miners Association of Victoria (PMAV)
- AiGroup.

Four meetings were held on the following dates:

- 18 November 2013
- 13 February 2014
- 26 March 2014
- 15 May 2015.

Key matters raised during these meetings include:

- Scope of the OHS Mines regulations
- Risk assessment for mining hazards
- Emergency plans.

WorkSafe's consultation on the Equipment and Public Safety Regulations

To support the review of the EPS Regulations, WorkSafe approached relevant stakeholders to seek written feedback on 14 policy change proposals in April 2015.

Stakeholder feedback was invited from:

- Australian Association of Live Steamers
- The Victorian Farmers Federation
- Community Clubs Victoria
- Showman's Guild of Australasia
- VTHC

• VCEA

Deloitte's consultation on the Regulatory Impact Statement

Deloitte undertook consultations with a number of businesses and stakeholders to gather information for the development of the Regulatory Impact Statement (RIS). WorkSafe attended these consultations in an observer capacity.

Deloitte conducted interviews were held with 148 businesses across the state to talk about the impacts of potential changes to the OHS Regulations on their business (including costs and benefits).

A web-based survey has also been completed by a further 167 businesses.

Deloitte conducted two focus groups in metro Melbourne and regional focus groups were held in Geelong, Ballarat and Traralgon. The focus groups were presented with the preliminary analysis of the regulatory impact on Victorian businesses associated with the OHS and EPS Regulations and considered the reasonableness of the preliminary findings and the assumptions adopted.

Appendix C – Applicability of market based instruments

Consideration was given to the inclusion of an option involving the use of market-based instruments. However, as discussed in Section 4.1, upon reviewing the possibilities for such an option, no viable approaches could be identified.

Importantly, a market-based approach to managing occupational health and safety risks already exists to a certain extent in the form of the Victorian workers' compensation insurance scheme. This is akin to a market-based instrument as it provides financial incentives for employers to manage health and safety risks in the workplace.¹⁹⁸ Nevertheless, consideration was given as to whether any other market-based approaches could be adopted in addition to Victoria's workers' compensation insurance scheme.

The Victorian Guide to Regulation, Toolkit 1, gives the following examples of market based instruments: taxes on undesirable activities, subsidies for desirable activities, user charges, tradeable permits and procurement. The common use of each is outlined below along with a short rationale on the appropriateness or otherwise of each as a form of intervention to address the existence of hazards in key areas of Victorian workplaces. The definitions and examples are drawn from the *Victorian Guide to Regulation*, Economics of the Public Sector,¹⁹⁹ Intermediate Public Economics²⁰⁰ and Regulation of Health, Safety and Environmental Risks.²⁰¹

Taxes are often imposed in order to internalise a 'negative externality' (such as pollution) and to ultimately change behaviour or investment decisions. They are commonly used for reducing the production or consumption of undesirable activities such as smoking tobacco or consuming alcohol. Taxes are not considered as a feasible approach for meeting the objectives of the OHS Regulations as it is not possible to conceive of an employer activity that could be the subject of a targeted tax that would directly incentivise efforts to identify and manage hazards in the workplace – that is, beyond the incentive mechanism offered by workers compensation insurance premiums.

Subsidies have a similar impact as taxes except they target desirable activities to internalise 'positive externalities' (such as from immunisation programs) and where public goods exist (such as in relation to public roads and airports). Common examples are government

¹⁹⁸ In theory, employers with a good track record face lower insurance premiums and vice versa. In practice, however, this relationship is less evident for smaller employers as their premiums are set based on the historical performance of groups of similar employers rather than the individual employer. Nonetheless, premiums for larger employers do typically take into account their own historical performance (or claims experience) so a strong financial incentive exists for these larger employers to manage health and safety risks.

¹⁹⁹ Stiglitz (2000)

²⁰⁰ Hendriks and Myles (2006)

²⁰¹ Viscusi (2006), Harvard Law School

support of tertiary education or industry research and development. Subsidies are not considered a feasible approach for meeting the objectives of the OHS Regulations because the focus of intervention in this case is to influence and reduce behaviour that results in 'negative externalities' rather than promote 'positive externalities'.

User charges are typically applied to recover the costs of government-provided goods and services or regulation and to encourage the efficient allocation of resources. In the context of market-based instruments, examples of user charges include congestion 'charges' to manage transport congestion. WorkSafe has in place cost recovery arrangements for its licencing activities. Beyond this, user charges are not considered feasible for the same reasons outlined above for taxes.

Tradeable permits are used to achieve efficient allocation of resources and/or to internalise 'negative externalities' (as an alternative to taxation). Common examples are tradeable carbon emission permits and tradable water rights. In this case, such an approach could involve capping the overall number of workplace injuries, illnesses and deaths, assigning permits to employers and allowing those with good safety outcomes to sell permits to those with poor safety outcomes. Such an approach is not considered appropriate for meeting the objectives of the OHS Regulations for a wide range of reasons, including that such an approach would be morally questionable and may result in greater extremes in safety standards among workplaces, with associated risks to workers.

Rewarding good behaviour is another government intervention aimed at changing the behaviour of individuals, organisations or businesses, particularly regulated entities. An example is provided by the Environment Protection Authority's (EPA) 'earned autonomy pilot program'. The program has a range of benefits available to organisations that are considered 'better performers'. Benefits awarded include access to a more streamlined approvals process, fewer planned EPA inspections and being encouraged to apply for amendments to licence conditions that enable innovation.²⁰² WorkSafe already has in place a system of awards for champions of workplace safety (annual WorkSafe Awards).²⁰³ Beyond this, such an approach is not considered feasible for meeting the objectives of the OHS Regulations as the incentives that could be offered by the potential for reduced inspections is not considered significant enough to encourage meaningful changes in behaviour. Further, it is not possible to conceive of any existing licence conditions or duties on employers that could be reduced for 'better performers' without reducing safety standards.

Therefore, on the basis of the above discussion there are no market-based approaches beyond worker's compensation insurance that are feasible or appropriate to meet the objectives of the OHS Regulations. Accordingly, no such option is included in this RIS.

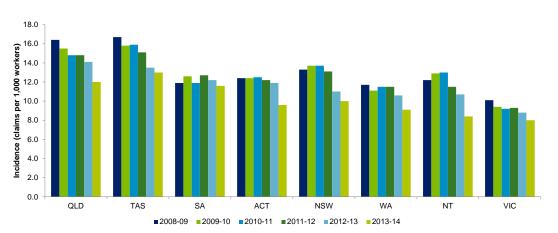
²⁰² http://www.epa.vic.gov.au/business-and-industry/guidelines/licensing-and-works-approvals/earned-autonomy-pilot

²⁰³ See: http://www.worksafe.vic.gov.au/promo/awards-2015#start

Appendix D – Explanatory notes on comparative performance

Chart 3.8, which is reproduced below, compares the incidence of serious injury and disease claims across Australian States and Territories.

Chart 3.8: State and Territory comparison of serious injury and disease claims 2008-09 to 2013-14



Source: Safe Work Australia, Comparative Performance Monitoring Report 17th Edition. Note: This chart should be considered in the context of several explanatory notes, these are provided in Appendix D – Explanatory notes on comparative performance.

Because data is not always defined and collected consistently across Australian States and Territories, it is important to understand the basis upon which the data is collected and prepared. This information is set out in Safe Work Australia's 17th edition of the *Comparative Performance Monitoring Report*, and key matters to be aware of include:

- The data includes all accepted workers' compensation claims involving temporary incapacity of one or more weeks compensation plus all claims for fatality and permanent incapacity
- It is likely to exclude many contractors and self-employed workers
- In analysing trends over time, consideration needs to be given to any changes to jurisdiction-specific legislation and administrative processes during the period concerned, further details of which should be sought from the states and territories.
- As employers do not always provide WorkSafe (and the South Australian equivalent regulator) with information on claims lasting fewer than ten days, an adjustment factor was applied in order to compare claims. To calculate the Victorian and South Australian under ten day excess impact, the percentage of claims between one and two weeks duration for Victoria and South Australia was compared with the percentage of one to two weeks claims for other Australian states and territories. From this comparison, the number of Victorian and South Australian claims between one and two weeks was increased by a factor so that the percentage of such claims was similar to the Australian average. The analysis was undertaken at the industry division level to allow for a

greater degree of homogeneity in respect of claim duration in Victoria. The application of the factors has increased the claims supplied by Victoria by 14 per cent (from 20,507 to 23,371) and for South Australia by 12 per cent (from 7,878 to 8,838).

Limitation of our work

General use restriction

This report is not intended to and should not be used or relied upon by anyone other than WorkSafe and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of assessing the regulatory impacts of the existing and proposed Occupational Health and Safety Regulations as part of WorkSafe's OHS Regulations Reform Project. You should not refer to or use our name or the advice for any other purpose.

Contact us

Deloitte Access Economics ACN: 149 633 116

550 Bourke St Melbourne VIC 3000

Tel: +61 3 9671 7000 Fax: +61 3 9671 7700

www.deloitteaccesseconomics.com.au

Deloitte Access Economics is Australia's preeminent economics advisory practice and a member of Deloitte's global economics group. For more information, please visit our website www.deloitteaccesseconomics.com.au

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/au/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings worldclass capabilities and deep local expertise to help clients succeed wherever they operate. Deloitte's approximately 200,000 professionals are committed to becoming the standard of excellence.

About Deloitte Australia

In Australia, the member firm is the Australian partnership of Deloitte Touche Tohmatsu. As one of Australia's leading professional services firms. Deloitte Touche Tohmatsu and its affiliates provide audit, tax, consulting, and financial advisory services through approximately 6,000 people across the country. Focused on the creation of value and growth, and known as an employer of choice for innovative human resources programs, we are dedicated to helping our clients and our people excel. For more information, please visit our web site at www.deloitte.com.au.

Liability limited by a scheme approved under Professional Standards Legislation.

Member of Deloitte Touche Tohmatsu Limited

© 2016 Deloitte Access Economics Pty Ltd