



# Health and Safety Law from the Industrial Revolution to the New Zealand Health and Safety at Work Act 2015

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## Abstract

This article reviews the development of work health and safety legislation from the late 18th century to the New Zealand Health and Safety at Work Act 2015.

## Keywords

history; legislation; Robens; Health and Safety at Work Act;

## The First Industrial Revolution

In 1760, the first Industrial Revolution commenced, changing the way in which work was conducted, with new developments in manufacturing processes and machinery enabling mass production and seeing the implementation of mills and factories across Europe and the United States (Geraghty, 2007). The revolution was aided by new sources of energy such as coal and steam spurring the invention of machinery which aimed to increase production and decreased the use of human and animal labour.

### Legislation to protect children in cotton mills

The Health and Morals of Apprentices Act (1802) applied to textile mills and factories that employed three or more apprentices or 20 employees. There was no regulator, and the enforcement of the Act was undertaken by magistrates. The Act focused on the work and moral welfare of workers and required the ventilation of factories by providing sufficient windows and cleaning of the ceilings and walls (Statutes at Large: Statutes of the United Kingdom 1801-1806, 1822). The Act was also concerned about the religious education of apprentices and required that they be examined by a clergyman at least once a year.

In 1784, the health and welfare of children in cotton mills was being raised by members of the medical profession and they expressed concerns in a report on an outbreak of 'putrid fever' in a mill owned by Sir Robert Peel. As a result, Sir Robert Peel introduced the Health and Morals of Apprentices Act 1802 which addressed indentured children's welfare, leaving those who were not under apprenticeships unregulated.

### Further legislative change 1819-1850

Between 1819 and 1831 further Acts were passed, some in response to significant industrial incidents, and addressed night working (it was forbidden for workers under 21); hours of work were limited to 12 hours per day up to the age of 18 and the onus was placed on the employer to show that no under-aged workers were employed. However, these requirements were largely unenforceable as complaints needed to be pursued within three months of the incident or breach occurring.

In 1833, the UK Parliament passed the Factory Act, which prohibited workers under the age of 9. The Act also restricted the working day in textile mills to 12 hours for persons aged 13 through 17 and to 8 hours for those aged 9 through 12. That Act also established the professional Factory Inspectorate; this was an important step because before 1833 enforcement had been left to local magistrates who largely left the mill owners to manage their own compliance.

The 1833 Act saw the commencement of the UK inspectorate with the appointment of four male inspectors. The Inspectors were tasked with ensuring compliance with the new legislation was monitored and they were equipped with the same powers as magistrates allowing them to create regulations but no right of entry to premises. However, it was not until 1893 that the first two female inspectors were appointed.

During this time the public was becoming more concerned regarding workplaces and conditions. Charles Dickens drew attention to the plight of women and children; his famous tale *A Christmas Carol* started off as a pamphlet titled "An Appeal to the People of England on Behalf of a Poor Man's

Child” (Hawksley, 2017). Dickens was, as he described, “stricken down” when reading Dr Thomas Southward Smith’s report into the health of Britain’s children who worked in factories, mills, and mines.

The Factory Act 1844 saw Inspectors being given the right to access factories and workplaces (Hutchins & Harrison, 1911); however, the trade-off was the Inspectors had their magistrate powers removed. This Act also saw a duty imposed on employers to guard machinery in areas accessed by children or young people. Accordingly, the focus of the inspectorate became the adequacy of guarding (Hutchins & Harrison, 1911).

The Factories Act 1847 (which became known as the Ten Hours Act), along with subsequent amendments in 1850 and 1853 to remedy defects in the 1847 Act, addressed the issue of work hours and the demands of mill workers for a 10-hour day. These Acts also provided for ventilation, hygiene practices and guarding and were again focused on the working conditions for children. By the 1860s the Factory Act was extended to industries such as mining and other workplaces.

Legislative reform continued throughout the late 1800s. This was not without opposition from factory owners and employers, with protests occurring and significant opposition being levied against proposed changes. Charles Dickens again raised concerns about workers being harmed in the workplace, amidst the proposed changes to legislation and increased needs for worker protection from harm. This was criticised by Harriet Martineau, an English Social Theorist, who said (Martineau, 1856) “If men and women are to be absolved from the care of their own lives and limbs, and the responsibility put upon anybody else by the law of the land, the law of the land is lapsing into barbarism.”

### **Sidney Webb’s review of Factory Legislation**

The first significant review of factory legislation was conducted by Sidney Webb in 1910 who concluded:

*We began with no abstract theory of social justice or the rights of man. We seem always to have been incapable even of taking a general view of the subject we were legislating upon. Each successive statute aimed at remedying a single ascertained evil. It was in vain that objectors urged that other evils, no more defensible existed in other trades, or among other classes, or with persons of ages other than those to which the particular Bill applied. Neither logic nor consistency, neither the over-nice consideration of even-handed justice nor the Quixotic appeal of a general humanitarianism, was permitted to stand in the way of a practical remedy for a proved wrong. That this purely empirical method of dealing with industrial evils made progress slow is scarcely an objection to it. With the nineteenth century House of Commons no other method would have secured any progress at all.*

(Hutchins & Harrison, 1911)

### **A need for change**

Further changes to legislation occurred in the 1930s through to 1961 with successive Factories Acts being enacted. Drivers for change included (1) cases taken by the regulator resulting in failed prosecutions and low fines/sanctions being imposed and (2) common law claims for injury failing because the harm did not occur in a factory as defined.

Coal mining often resulted in serious health and safety incidents with multiple fatalities. Fires were also prevalent with both workers and emergency responders being killed in incidents. Worker health was significantly impacted by dermatitis, pneumoconiosis (CWP), and exposure to asbestos, and other hazardous dusts and substances (Lyddon, 2012; Williams, 1960)

A series of significant workplace incidents in the 1960s and 1970s brought health and safety to the forefront in the minds of the public and to those in Parliament, these included:

- a) the Aberfan disaster in 1966 which killed 116 children and 26 adults when slurry from a mine made its way downhill to a primary school in Wales (Davies et al., 1967; Eves, 2010)
- b) the James Watt Street fire in Glasgow which killed 22 workers (Anon, n.d.; Hansard, 1968)
- c) a lead poisoning outbreak at the Avonmouth smelting plant (Bonnell, 1973).

In the 1960s mining and quarrying deaths alone totalled 150 workers per year, which (according to the HSE) was equal to the current death toll across all industries in Britain.

In 1967 the Labour government reviewed the Factories Act 1961 and the Offices Act 1963 and the need for reform, recommending legislative change (Lyddon, 2012) leading to the Robens Report.

### The Robens Report

The inquiry into Aberfan identified the failures of systems and the apathy of businesses regarding worker safety, spurring the need to inquire into whether the legislation of the time was effective and appropriate.

Between 1970 and 1972 a committee, appointed by the Right Honourable Barbara Castle MP and chaired by Alfred Lord Robens, investigated health and safety in the UK and presented what would come to be known as The Robens Report (Lord Robens et al., 1972). Lord Robens had been on the National Coal Board and subject to an inquiry in respect of Aberfan.

The report called for a less prescriptive legislative model and addressed the need for unified legislation and administration of health and safety through a new regulatory agency and unified inspectorate (the Health and Safety Executive). A regulatory system for the management of risks and hazards was to be established with new regulations, guidance documents and statutory duties for health and safety to be implemented by duty-holders.

### The UK HSWA enacting Robens

The Robens Report was accepted by the Conservative government and as a result it introduced the draft bill in January 1974 (a month before the general election). The UK Labour government, as soon it was formed post-election, reintroduced the Bill that became the UK Health and Safety at Work Act (HSWA, 1974), receiving the Royal Assent on 31 July 1974. John Locke, the first Director General of the Health and Safety Executive described the Act as being “a bold and far-reaching piece of legislation”.

The UK HSWA was and remains a unified piece of legislation that requires employers and other stakeholders to comply with general duties for health and safety through the use of processes of identification, risk analysis and controls to eliminate, isolate, and mitigate hazards in the workplace (Sirrs, 2016). The 1972 Robens Report also inspired legislative change in Commonwealth nations, including Australia and New Zealand.

Spence (2022) (retired Health and Safety Executive statistician) reported that Britain’s safety record has seen significant improvement since the Act came into force, with the rate of workplaces fatalities falling 88% between 1971 and 2019/2020. His comparative analysis of pre-Robens and post-Robens is summarised in Table 1.

**Table 1. Changes in fatal injuries, non-fatal injuries, and lost days 1961-2020**

Annual average percentage changes (3-year averages)	Pre-Robens (1961-70)	Post-Robens	
Rate of fatal injuries	-3.5%	(1974 to 2019/20)	-4.8%
Rate of non-fatal injuries	+1.2%	(1986/87 to 2019/20)	-4.0%
Working days lost per worker	+2.3%	(1990 to 2019/20)	-1.9%

In June 1974, a month before Royal Assent to the UK HSWA 1974, another sad reminder of the need for health and safety reform occurred, when a massive explosion ripped through the Nypro (UK) Ltd plant at Flixborough. The dangerous gas cyclohexane escaped, ignited, and exploded killing 28 workers and seriously injured 36 others. The plant was destroyed (Venart, 2007; Whittingham, 1999).

### Influence of HSWA UK and the Robens Report on New Zealand Law

Until 1992 New Zealand had followed the path of the UK by introducing Factories Acts and prescriptive regulations and legislation that attempted to address industrial conditions in New

Zealand, with the first industrial inspectors being appointed to regulate safety in factories under the Factories Act 1891 (Peace et al., 2019).

In 1896, there was an explosion in the Brunner mine killing 65 miners (Grayland, 1957, pp. 83-88). Despite successfully suing the mine company the widows and their children were left with meagre compensation or income (Armstrong, 2016; Campbell, 1996). This led to the Workers' Compensation for Accidents Act (1900) and, eventually, the Woodhouse (1967) report and the current ACC scheme. This legislative emphasis on compensation for injury appears to have taken precedence over prevention of injury (Peace et al., 2019).

In 1990, 17 accidents per week were investigated by the then Department of Labour (DOL); 5 workers were killed at work every fortnight; 5 workers were left with life-changing injuries; and 200 workers per week were unable to work due to work-related injuries. It was widely accepted that NZ health and safety legislation was scattered across a "plethora of legislation" that was inefficient, unduly complex, and that attempted to cover a wide range of subject matter in too much detail (Deeks & Perry, 1992; Lamm, 1994).

During the 1980s several attempts were made to modernise legislation in NZ, eventually leading to the Health and Safety in Employment Act 1992. The Minister for Labour, Bill Birch, when introducing the Health and Safety Bill, acknowledged the "mish mash" of legislation and the benefits of having one dedicated statute. On 27 October 1992, the Health and Safety Employment Act 1992 received the Royal Assent and went on to be administered by the then Department of Labour which was also responsible for regulating employment law. The new Act, however, failed to address the significant health and safety issues and concerns and led to much fruitless discussion about the difference between 'hazard' and 'significant hazard' (Peace et al., 2019).

### **Pike River mine, the Royal Commission and Independent Taskforce**

The New Zealand public and Parliament's attention was drawn again to health and safety on 19 November 2010 when the first methane gas explosion occurred at Pike River Mine. Another explosion occurred on 24 November; at that point the explosions were presumed to have killed the 29 miners who were trapped after the first explosion.

A Royal Commission was appointed on 29 November 2010, with the terms of reference requiring findings on the cause of the explosions, why the tragedy occurred, the effectiveness of search and rescue operations, the adequacy of New Zealand mining law and practice and the effectiveness of its administration, and to undertake a comparison with other jurisdictions (Royal Commission on the Pike River Coal Mine Tragedy, 2012). The Royal Commission made 16 recommendations which included:

- a) a new Crown agent focusing on health and safety be established
- b) an effective regulatory framework for underground coal mining be established under urgency
- c) regulatory agencies need to collaborate to ensure that health and safety is considered as early as possible and before permits are issued
- d) the Crown minerals regime should be changed to ensure that health and safety is an integral part of permit allocation and monitoring
- e) the statutory responsibilities of directors for health and safety in the workplace should be reviewed to better reflect their governance responsibilities.

The Government also appointed an Independent Taskforce on Health and Safety (the Taskforce). The Taskforce undertook a robust process, including extended engagement with stakeholders and interested parties and provided its report to the Minister of Labour on 30 April 2013 (Jager et al., 2013). One of the Taskforce's findings was that the HSE Act fundamentally failed to implement properly Robens law in New Zealand noting: "...The performance-based Robens Model of Health and Safety legislation, which underlies the existing legislation is sound ... however, New Zealand's implementation of the Robens model has been weak."

The Taskforce found that, while there was no single critical factor behind New Zealand's poor health and safety record, the system had significant weaknesses across the full range of components of the workplace health and safety system that needed to urgently be addressed. There was a clear need to drive major improvements and to raise expectations. The Taskforce made 15 recommendations focused on improving health and safety in New Zealand including:

- a) strengthened government leadership
- b) a legislative focus on prevention

- c) obtaining a balance and proportionality for small businesses
- d) a new legislative framework with appropriate regulations, guidance, enforcement, obligations/duties, worker participation, and flexibility to work for both low and high risk sectors
- e) a well-resourced regulator with a firm stance, targeted enforcement, robust data and monitoring, reporting and analysis
- f) partnership and collaboration between government agencies
- g) work between the regulator and industry to create professional standards.

### The WorkSafe Act 2013 and the Health and Safety at Work Act 2015

On 16 December 2013, WorkSafe New Zealand commenced operations, having been established by the WorkSafe New Zealand Act (2013). WorkSafe initially operated under the Health and Safety in Employment Act 1992, until 4 April 2016 when the NZ Health and Safety at Work Act (2015) came into force. The Ministry of Business, Innovation and Employment (MBIE) sought to implement the recommendations of the Royal Commission and the Independent Taskforce and HSWA. New regulations were intended to implement the recommended changes, including on Asbestos, Hazardous Substances and New Organisms, General Risk, Mining, Major Hazard Facilities, Adventure Activities, and other activities.

Significantly, the aiding and abetting provision found in the Health and Safety in Employment Act 1992 was removed in favour of the section 44 due diligence duty and a new concept of person conducting a business or undertaking (PCBU) was introduced. Section 22 of HSWA codified what the Courts had over time interpreted the test of what was “reasonably practicable” and fines increased six-fold, with the maximum fines for the strict liability offence (\$1.5 m) and recklessness (\$3m) sending a strong message to PCBUs.

*Stumpmaster v WorkSafe New Zealand & Ors* [2018] NZHC 2020, as was the case with *Hanham & Philp*, provided guidance from the full bench of the High Court on how sentencing bands should be applied and then confirmed the sentencing process: how to deal with reparation, the existence or absence of insurance, assessment of starting points/culpability, and application of reductions under the Sentencing Act 2011.

Reparation has increased significantly since the commencement of WorkSafe. In *Department of Labour v Icepak Coolstores & Anor* the reparation ordered in 2009 was \$175,000 in circumstances where a fireman was killed and seven others were injured. The recent sentencing decision in *Whakaari Management Limited* saw WML being ordered to pay reparation, as its portion of the overall reparation orders, of \$5m.

WorkSafe’s recorded fatalities, which also include deaths that occurred due to the December 2019 Whakaari eruption, are in Table 2

**Table 2. work-related fatalities in New Zealand, 2014-2023**

Year	Number of fatalities	Notes
2014	65	
2015	59	
2016	74	
2017	80	
2018	62	
2019	110	This includes the Whakaari deaths
2020	69	
2021	64	
2022	59	
2023	37	Part year (January 2023-June 2023)

Source: <https://data.worksafe.govt.nz/graph/summary/fatalities>

The industries with the highest number of fatalities are Transport, Postal and Warehousing (12.77%) and Agriculture (10.49%) per 100,000 people in employment. New Zealand’s statistics are sobering when considered against workplace fatality rates within the OECD. For example, twice as many people die at or because of work in NZ as do in Australia, and four times as many as do in the UK.

## The current review

Currently the Health and Safety at Work Act is being consulted on, with the period for consultation commencing on 14 June 2024 and closing on 31 October 2024 (MBIE, 2024). The Minister for Workplace Relations and Safety, Hon Brooke van Velden, has concluded that

*New Zealand's workplace fatality rate is far too high, yet organisations and workers are still spending huge amounts of time and resource complying. It is clear the current approach to health and safety is not achieving the results most New Zealanders would expect.*

The review is focused on the effectiveness of the legislation and the regulator, it will be seen whether it considers the unique factors, attitudes to safety/psychosocial factors, and other characteristics of the New Zealand workforce and workplaces when comparing other jurisdictions. Drivers for change historically have been driven by significant health and safety failures with multiple fatalities, they have been reactive and have been driven by public outrage and concerns of the Government of the time.

The review is timely; however, the hope would be that the Robens Model would not be forgotten and the need to encourage ownership, responsibility, and overall concern for the wellbeing of workers in New Zealand should not be traded off to simply reduce compliance costs. As the Independent Taskforce noted, the balance must be achieved, and the regulator must be resourced appropriately to ensure that injuries and fatalities are reduced. The HSWA is not broken but there is certainly room for refinement and change in the supporting Regulations and approved codes of practice; Robens should not be pushed aside. We should not embark on legislative change that sets us back to a time where there was an overly prescriptive legislation that did not allow for innovation in workplace health and safety.

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