



**MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT**  
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## Summary of Submissions

*Seeking Proposals for Additions to the Schedule 2 List of Occupational Diseases under the Accident Compensation Act 2001*

19 June 2023

ISBN: 978-1-991092-50-2 (online)



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# 1 Introduction

## 1.1 Purpose

In April 2023, the Ministry of Business, Innovation and Employment (MBIE) released the discussion document *'Seeking Proposals for Additions to the List of Occupational Diseases under the Accident Compensation Act 2001'* for public consultation.

In August 2022, Cabinet approved a review framework for the list of occupational diseases in the Accident Compensation Act 2001 (AC Act). The list is contained in Schedule 2 of the AC Act, so is referred to as Schedule 2. The review framework aims to:

- ensure the occupational diseases listed are relevant to the experiences of working New Zealanders,
- enable it to be kept up to date with modern medical and epidemiological evidence,
- improve claimants' access to Work-Related Gradual Process, Disease or Infection (WRGPD) cover and,
- address gaps in our understanding of how occupational diseases impact different population groups in New Zealand.

The discussion document invited people to submit their proposals for additions to Schedule 2. The discussion document is available on [MBIE's website](#).

Public consultation closed on 17 May 2023. MBIE received 20 submissions and will use these submissions, as well as the International Labour Organization List of Occupational Diseases (ILO List)<sup>1</sup> and SafeWork Australia's List of Deemed Diseases<sup>2</sup>, to inform a list of proposed additions to Schedule 2.

Submitters should be aware that a disease being on either of these lists, or submitted as a suggestion through this consultation, does not guarantee its inclusion in Schedule 2.

Proposed changes to Schedule 2 must still be assessed independently by experts against the technical criteria to inform recommendations. The experts will use a gender-sensitive approach to inform their recommendations and understand how the diseases impact different population groups in Aotearoa New Zealand, to the extent that is possible.

MBIE will then consider the recommendations in the context of the objectives of the review, cost estimates and the type of cover provided under the AC Scheme.

All submitters were notified that their submission or the content included in the summary or other report could be made public. Making a submission was considered consenting to making the submission public unless the submitter clearly specified otherwise. One submitter specified they did not consent to have their submission, or a summary of their submission, published on MBIE's website.

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<sup>1</sup> [ILO List](#)

<sup>2</sup> [Deemed Diseases List](#)

## 1.2 List of submitters

MBIE received submissions from 20 submitters. The names of submitters are set out below, apart from two who requested to remain anonymous.

Figure 1: List of submitters

No.	Name of submitter	Type of submitter
1	Anonymous A	Individual
2	Anonymous B	Individual
3	AIA New Zealand Limited	Organisation
4	Cancer Society of New Zealand	Organisation
5	Dr Bronwen McNoe	Individual
6	Dr Paul Skirrow	Individual
7	Envirocom (NZ) Limited	Organisation
8	Fire and Emergency New Zealand (FENZ)	Organisation
9	Ia Ara Aotearoa Transporting New Zealand Incorporated	Organisation
10	Mel Hollis	Individual
11	New Zealand Professional Firefighters Union (NZPFU)	Organisation
12	Perioperative Nurses College of the New Zealand Nurses Organisation (NZNO)	Organisation
13	Robyn Tattley	Individual
14	Southern Cross Health Society	Organisation
15	The Employers and Manufacturers Association (EMA)	Organisation
16	The New Zealand Institute of Safety Management (NZISM)	Organisation
17	The Royal Australasian College of Physicians (RACP)	Individual members of the organisation
18	United Fire Brigades' Association (UFBA)	Organisation
19	Whaikaha	Organisation
20	WorkSafe	Organisation

## 2 Summary of submissions

### 2.1 Submission analysis

Overall, from the 20 submitters, MBIE received a range of suggestions for diseases and corresponding factors which are not included in Schedule 2 of the AC Act, as well as suggestions to expand some of the existing factors to capture more expansive or specific WRGPDI's.

Most of the submitters did not raise gender or population considerations in their submissions, with only Envirocom and UFBA making explicit mention to Schedule 2 cover for women.

To avoid duplication, MBIE will not provide diseases and factors which are already included in Schedule 2 to the health experts; nor will MBIE provide suggestions which are clearly outside the scope of Stage 2 of the Schedule 2 review.<sup>3</sup>

MBIE cannot determine if diseases or factors included in the public submissions will be added to Schedule 2 at this stage. Any additions will need to be examined against clinical and epidemiological

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<sup>3</sup> Out of scope submissions are covered on pages 12-14.

evidence by a panel of health experts to ensure they meet technical criteria for inclusion in Schedule 2. The findings from the health experts will then be considered against cost estimates and other policy considerations before proposals are taken to the Minister for ACC. Ultimately, the final decision on additions will be undertaken by Cabinet for an Order in Council.

The following section is not an assessment of the suggested additions or an indication of whether they will be included in Schedule 2. The figures are simply a summary of the diseases and factors that MBIE received suggestions for over the consultation period. These submissions will be used to inform the list of suggestions which will be sent to the independent health experts.

## 2.2 Proposed additions

The suggested diseases have been grouped into broader categories as per the ILO List and SafeWork Australia's List of Deemed Diseases. This grouping is for ease of reading and is not a final categorisation.

### Cancers

Figure 2 outlines cancers and suggested corresponding factors.

Figure 2: Summary of cancer proposals

Submitter(s)	Type of Cancer	Corresponding factor
Cancer Society of New Zealand  Southern Cross Health Society	Melanoma	Intense intermittent exposure to excessive ultraviolet radiation; UVA and UVB exposure; high-risk occupations include, but are not limited to: outdoor construction workers, agriculture, horticulture, aquaculture, mountain guiding, landscaping or roading
Dr Bronwen McNoe  Cancer Society of New Zealand	Non-melanoma skin cancers (keratinocytic) including, but not limited to: basal cell carcinoma and squamous cell carcinoma	UVA, UVB, and excessive UVR exposure
Cancer Society of New Zealand	Rarer malignancies of the skin	UVA and UVB exposure
UFBA	Non-Hodgkin's lymphoma	Firefighting
UFBA	Testicular cancer	Firefighting
UFBA	Prostate cancer	Firefighting
UFBA	Kidney cancer	Firefighting
UFBA	Bladder cancer	Firefighting; exposure to amines and other named chemical exposures
UFBA	Colon cancer	Firefighting
UFBA	Myeloid leukaemia	Firefighting
UFBA	Female reproductive cancers	Firefighting
UFBA	Thyroid cancer	Firefighting
UFBA	Oesophagus cancer	Firefighting
UFBA	Mesothelioma	Firefighting

AIA	General occupational cancer	Firefighting; work as other emergency personnel
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### *Heart diseases*

Figure 3 outlines two types of heart disease and their suggested corresponding factors.

Figure 3: Summary of heart disease proposals

Submitter	Heart disease	Corresponding factor
UFBA	Ischaemic heart disease	Firefighting
UFBA	Other interstitial pulmonary diseases	Firefighting

### *Lung diseases*

Figure 4 outlines the four types of lung disease and their suggested corresponding factors.

Figure 4: Summary of lung disease proposals

Submitter(s)	Lung disease	Corresponding factor
UFBA	Occupational Asthma	Exposure to sensitising agents as a firefighter
WorkSafe	Obliterative bronchitis	Manufacturers in food production
WorkSafe	Extrinsic allergic alveolitis	Workers in mushroom farms, vegetable storage, and wood processing
AIA	Lung and respiratory disease (with specific reference to Pneumoconiosis)	Working as a nail technician or working in close proximity of where nail technicians perform their work (such as a beauty salon); working in the green space and landscaping sector; exposure to <i>Pneumocystis jirovecii</i> (PCP) by working in the timber industry

### *Other diseases, illnesses, or injuries*

Figure 5 outlines other disease, illnesses or injuries and suggested corresponding factors.

Figure 5: Summary of other diseases, illnesses or injuries

Submitter(s)	Other disease, illness or injury	Corresponding factor
Envirocom UFBA WorkSafe	Hepatitis (A, B & C)	Firefighting (professional and volunteer); rescue activities (including medical first response); healthcare workers or other workers in contact with bodily fluids
Envirocom UFBA	Covid-19 (including Long Covid)	Firefighting (professional and volunteer)
WorkSafe	Human Immunodeficiency Virus	Healthcare workers / other workers in contact with bodily fluids

WorkSafe	Tuberculosis	Healthcare workers / other workers in contact with bodily fluids
WorkSafe	Influenza A	Those working in healthcare settings
Dr Paul Skirrow	Chronic Traumatic Encephalopathy (TCE)	Repeated traumatic blows to the head suffered by professional athletes in contact sports
Southern Cross Health Society	Occupational varicose veins in the lower extremities	Engaged in prolonged standing/walking at work; high risk occupations include, but are not limited to: nurses working in emergency care and operative rooms
Southern Cross Health Society	Campylobacteriosis	Working with live animals or their carcasses; recognised high-risk occupations including, but not limited to: dairy cattle farmers, poultry workers, wildlife animal workers, and slaughterhouse workers
UFBA	Stroke	Firefighting

### *Musculoskeletal disorders*

Figure 6 outlines the range of musculoskeletal disorders and their suggested corresponding factors.

Figure 6: Summary of musculoskeletal disorders

<b>Submitter(s)</b>	<b>Musculoskeletal disorder</b>	<b>Corresponding factor</b>
Envirocom UFBA Robyn Tattley AIA	Musculoskeletal disorders including, but not limited to osteoarthritis; and other conditions of the shoulder, hip, back, and knee	Firefighting; Funeral director / embalmer; work in the green space or landscaping sector; fruit market workers; long-distance truck or bus drivers; construction workers, agriculture or aquaculture workers, manual patient handlers such as geriatric nurses
WorkSafe Southern Cross Health Society	Bursitis: Olecranon bursitis Prepatellar bursitis	Prolonged pressure of the elbow region Prolonged stay in the kneeling position
WorkSafe	Osteonecrosis	Occupational diving
Southern Cross Health Society	Radial styloid tenosynovitis	Repetitive movements, forceful exertions and extreme postures of the wrist
Southern Cross Health Society	Chronic tenosynovitis of the hand and wrist	Repetitive movements, forceful exertions and extreme postures of the wrist
Southern Cross Health Society	Epicondylitis	Repetitive forceful work



Southern Cross Health Society	Meniscus lesions	Extended periods of work in a kneeling or squatting position
Southern Cross Health Society	Carpal tunnel syndrome	Extended periods of repetitive forceful work, work involving vibration, extreme postures of the wrist, or a combination of the three

***Proposed “Diseases of a type” and their corresponding factor***

Figure 7 outlines the range of proposals relating to “diseases of a type generally accepted by the medical profession as caused by...” that were included in submissions.

Figure 7: Summary of proposals for “diseases of a type”

<b>Submitter(s)</b>	<b>Broader diseases of a type</b>
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by fluorine and its compounds
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by asphyxiants like carbon monoxide, hydrogen sulphide, hydrogen cyanide or its derivatives
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by oxides of nitrogen including, but not limited to: nitric oxide, nitrogen dioxide, nitrogen monoxide, and nitrogen pentoxide
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by mineral acids including, but not limited to: hydrochloric acid, nitric acid, phosphoric acid, and sulphuric acid
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by pharmaceutical agents including clandestine lab drugs and precursor chemicals
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by corneal irritants and including all EPA-assessed Class 6.4A substances
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by ammonia
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by pesticides and including agrichemical and other toxicants generally including Classes 6.1A-E, 6.5A&B, 6.8A-C & 6.9A&B including narcotic effect and 2.1.7 sensitising asthma Class 6.5A
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by sulphur oxides including, but not limited to: sulphur dioxide and sulphur trioxide
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by chlorine
Envirocom UFBA	Diseases of a type generally accepted by the medical profession as caused by extreme temperatures

### *Proposed additions of corresponding factors*

Figure 8 outlines the proposed additional agents, dusts, compounds, substances, radiation or things, along with suggestions of diseases that they may cause included in the submissions.

Figure 8: Summary of additional corresponding factors

<b>Submitter(s)</b>	<b>Agent/Compound/Exposure</b>	<b>Disease (if applicable)</b>
NZISM UFBA	2, 3, 7, 8-tetrachloro dibenzo-para-dioxin	Diseases of the type associated with exposure including, but not limited to: lung cancer, non-Hodgkin's lymphoma, sarcoma; all cancer sites combined
NZISM	Benzene	Leukaemia
NZISM	Benzo(a)pyrene	Cancers of the lung, bladder, and skin
NZISM	1,3-Butadiene	Blood cancers
NZISM	Radioactivity (gamma activity)	All cancer sites combined
NZISM	Radionuclides (both alpha-particle-emitting and beta-particle-emitting)	All cancer sites combined
NZISM	Food manufacturing with fine dust particles including, but not limited to flour	Bakers' lung, and broader coverage for asthma
Anonymous A	Gases, materials and toxins in the course of firefighting	Occupational cancers including, but not limited to: lung cancer, skin cancer, thyroid cancer, and leukaemia
NZNO	Surgical smoke plume	Asthma
WorkSafe	1,2-Dichloropropane	Cholangiocarcinoma
WorkSafe	Lindane	Non-Hodgkin's lymphoma
WorkSafe	Pentachlorophenol	Non-Hodgkin's lymphoma
WorkSafe	Ultraviolet light (from welding)	Ocular melanoma
WorkSafe	Welding fumes	Lung cancer
Robyn Tattley	Embalming fluid	Central nervous system damage
UFBA	PFAS firefighting foams (historical use and current use as Legacy foams)	N/A
UFBA	Aromatic hydrocarbons including chronic solvent-induced encephalopathy	N/A
WorkSafe	Isocyanates used in polyurethane material	N/A
AIA	2-hydroxy ethyl methacrylate agent (Hema)	N/A

### Proposals to expand existing agents/compounds/dusts

Three submitters also proposed expanding or specifying the diseases associated with agents/compounds/dusts that are already included on the Schedule 2 list. Figure 9 displays the five agents/dusts/compounds with proposed amendments included in submissions.

Figure 9: Expansion of corresponding factors already included in Schedule 2

Submitter	Corresponding factor	Existing linked diseases in Schedule 2	Suggested additions
NZISM UFBA	Asbestos	Lung cancer and mesothelioma	Cancers of the larynx and gastrointestinal tract
Envirocom UFBA	Pesticides	Peripheral neuropathy	Diseases of a type generally accepted by the medical profession as caused by pesticides and including agrichemical and other toxicants generally including Classes 6.1A-E, 6.5A&B, 6.8A-C & 6.9A&B including narcotic effect and 2.1.7 sensitising asthma Class 6.5A
Envirocom UFBA	Sulphur oxides	Laryngeal carcinoma	Diseases of a type generally accepted by the medical profession as caused by sulphur oxides including, but not limited to: sulphur dioxide and sulphur trioxide
NZISM	Benzene	Diseases of a type generally accepted by the medical profession as caused by benzene or its toxic homologues.	Leukaemia

NZISM	Radioactivity (gamma activity) Radionuclides (alpha and beta-particle emitting)	Diseases of a type generally accepted by the medical profession as caused by ionising radiations.	All cancer sites combined
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### *Maintaining status quo*

Both the EMA and Ia Ara Aotearoa Transporting New Zealand Incorporated proposed no changes are made to Schedule 2. Whaikaha did not have any proposed suggestions.

EMA proposed maintaining the current list on the basis that additions to the list would have financial impact on employers. They noted that any additions to Schedule 2 would need to balance social costs with costs to businesses.

### *Use of ILO List and List of Deemed Diseases*

Individual respondents within RACP’s submission suggested the Government adopt the List of Deemed Diseases as a whole. The AC Scheme and Australian Workers Compensation Schemes are distinct systems and will have different mechanisms for work-related gradual process cover.

As MBIE mentioned in the discussion document, the Deemed Diseases List is useful in informing a review of Schedule 2. The List of Deemed Diseases works similarly to Schedule 2 in that it is designed as a streamlined route to workers’ compensation claims. This compares with an alternative process of demonstrating a multi-factorial disease is more likely to be caused by work than non-work factors, similar to the AC Act three-step test.

However, the Deemed Diseases List was produced for the context of Australian workers’ compensation systems. The Schedule 2 review framework includes criteria for inclusion in Schedule 2 which differ from those used for the List of Deemed Diseases. Mental injury is also included in the scope of the List of Deemed Diseases. Under the AC Act, work-related mental injury is covered separately from WRGPDI injury and will not be considered in this review.

### *Existing coverage*

The proposed agents, dusts, compounds, substances, radiation or things included in the public submissions outlined in Figure 10 are already included in the Schedule 2 list. These will not be included for consideration in the next stage of the review.

Figure 10: Proposals that are already included in Schedule 2

<b>Agent, dust, compound, substances, radiation or things</b>	<b>Associated disease or infection</b>
Cadmium	Lung cancer
Silica (crystalline)	Lung cancer
Formaldehyde	Naso-pharyngeal cancer

Sulphuric acid, sulphuric acid mist or organic solvents respectively and/or in combination	Laryngeal cancer
Occupational dermatitis	Exposure to sensitising agents

### 2.3 Gender/population group considerations in submissions

Both Envirocom and UFBA referred to gender considerations in their submissions. Envirocom argued that firefighters of both genders should be covered in regard to all their proposed additions. Additionally, the UFBA proposed that female reproductive cancers resulting from occupational exposure as a firefighter should be covered in Schedule 2.

AIA strongly supported the inclusion of gender considerations in the Schedule 2 review, and suggested requirements go further. They raised that diseases which predominantly impact women are less likely to be assessed as occupational, and this factor should be considered when reviewing evidence on diseases as it will likely underrepresent women.

On the contrary, both the EMA and Respondent 2 for the RACP were uncertain of how a gendered consideration in the review would operate in practice. EMA argued that any such considerations will require “sound research and evidence-based decisions.” Respondent 2 for the RACP disagreed that Schedule 2 is an avenue for rebalancing access to ACC for women, as they are unaware of what could be on the list that is being declined for women.

### 2.4 Out of scope

MBIE received a wide variety of out of scope recommendations and suggestions for both Schedule and the AC Scheme as a whole. These are out of scope and have not been considered as part of the review, as they did not provide suggestions of diseases or corresponding factors to include in Schedule 2.

The out of scope recommendations have been summarised in figure 11 to provide transparency on the topics raised during the review process.

Figure 11: summary of out of scope recommendations

Topic	Comment
<p><i>Suggestions to change the review framework</i></p> <p>MBIE received two submissions on the design of the Schedule 2 review framework, of which the consultation closed on 28 April 2022. Submitters were given the opportunity to make a submission on additions to Schedule 2.</p>	<p>This submission was not related to suggested additions to the actual Schedule 2 list.</p>
<p><i>Changes to section 30 of the AC Act</i></p> <p>NZPFU suggested that further amendments to section 30 of the AC Act are needed to enhance</p>	<p>This submission concerns a different part of the AC Act and expansion of the AC Scheme.</p>

the efficacy of Schedule 2 as a mechanism for cover.	
<p><i>Expand the AC Scheme to cover health conditions which are not work-related</i></p> <p>Respondent One for the RACP suggested cover for all cases of mesothelioma as a result of asbestos exposure, citing the main source of asbestos exposure being that of residual asbestos in the home.</p>	<p>This submission concerns expansion of the AC Scheme.</p> <p>This falls out of scope of the review as it is not related to an occupation or specific occupational exposure. Health conditions which occur predominantly because of non-work factors are appropriately supported under the health system.</p>
<p><i>Expand the AC Scheme cover of mental injuries</i></p> <p>Four submitters included discussion around, or direct proposals for, mental injuries in Schedule 2 or the AC Scheme more widely. This was particularly focused on cover for PTSD.</p>	<p>This submission concerns expansion of the AC Scheme.</p>
<p><i>Expand the AC Scheme to cover health conditions of volunteer firefighters</i></p> <p>Envirocom, UFBA, NZISM, and Anonymous A all recommended volunteer firefighters have access to cover under AC Scheme.</p>	<p>This submission concerns expansion of the AC Scheme.</p>
<p><i>Introduce presumptive legislation for firefighters</i></p> <p>NZPFU and FENZ propose the introduction of a presumptive cover clause for firefighters, regarding it as a more effective mechanism for firefighters to access cover than Schedule 2. supported presumptive legislation as an effective mechanism to provide firefighters with access to ACC coverage.</p>	<p>This submission concerns expansion of the AC Scheme.</p>
<p><i>Change the AC Act to investigate a claim 'to a reasonable extent'</i></p> <p>Mel Hollis proposed a word change in the AC Act to clarify the extent to which ACC can investigate a claim. Mel believes that more appropriate wording on this topic would remove the word necessary and, instead, would focus on investigation of a claim 'to a reasonable extent.'</p>	<p>This submission concerns a different part of the AC Act.</p>
<p><i>Changing definition of employment</i></p> <p>AIA suggest redefining the definition of 'employment' in the AC Act to include unpaid employment to address the "inherent bias against women or Māori who are overrepresented in unpaid work in and outside the home."</p>	<p>This submission concerns expansion of the AC Scheme.</p>

<p><i>Implementation of government monitoring programmes</i></p> <p>NZNO suggested that ACC should implement a monitoring programme to safeguard healthcare workers against smoke plume toxins.</p>	<p>This submission concerns operational decision making on injury prevention investment.</p>
<p><i>Vaccine injuries and hyperimmunization</i></p> <p>Anonymous 2 proposed the addition of vaccine injuries to Schedule 2. They focused on hyperimmunization caused by the tetanus vaccine, but also included hyperimmunization caused by the Covid-19 vaccine. In the rare situation where ACC could provide support for someone injured by a vaccination, the route for cover would be through section 32 Treatment Injury of the AC Act.</p>	<p>This submission is related to treatment injuries which is a different section of the AC Act.</p>
<p><i>Other correspondence</i></p> <p>MBIE also received (and responded to) two emails regarding personal experiences with illnesses and ACC cover.</p>	<p>These submissions were not related to suggested additions to Schedule 2.</p>