MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

WORKPLACE RELATIONS AND SAFETY POLICY
HEALTH AND SAFETY POLICY

Unclassified

Summary of Submissions

Implementing the Health and Safety at Work Act 2015: Better Regulation

Plant, Structure and Working at Heights

New Zealand Government

Section 1: Introduction

On 15 July 2019, the Minister for Workplace Relations and Safety launched a public consultation to support the implementation of the Health and Safety at Work Act 2015 (HSWA). The consultation sought feedback on the development of new regulations setting out the requirements for *Plant*, *Structures* and *Workings at Heights*.

The Discussion Paper was published on the Ministry of Business, Innovation and Employment's (MBIE) 'Have your say' webpage. It was also sent to a number of stakeholders who were asked to share it across their networks. Advertising about the consultation was also delivered through multiple channels, including via the initial media launch, on the MBIE's website, and using social media. WorkSafe and other external partners (such as Dairy New Zealand and Construction Health and Safety New Zealand) also assisted by promoting the consultation in industry communications and publications.

There were 16 public and sector-focussed meetings held across New Zealand, from Auckland to Invercargill. MBIE's Health and Safety (H&S) Policy team also met with upwards of 20 organisations and individuals with an interest in the consultation and proposals for the new regulations over the course of the consultation period and immediately following.

The consultation was undertaken to support the implementation of HSWA. Consultation was also necessary as the Royal Commission of Inquiry on the Pike River Coal Mine Tragedy and the Independent Taskforce on Workplace Health and Safety found that regulations and guidance for health and safety at work were ad hoc, weak, outdated in places, contained gaps, were hard to understand, and did not support businesses to fulfil their obligations.

The proposals for the new regulations included options to better manage the health and safety risks associated with the use of machinery, equipment, tools, vehicles, structures and structures at work. They also included proposals for working at heights or undertaking excavations.

It is important that changes to the current regulations (along with guidance material and workplace practice) are made as, for example, machinery, equipment, tools and structures are involved in 79 per cent of fatal injuries at work (across 2008-2019). Fatalities and injuries are prevalent in New Zealand's most risky sectors – agriculture, forestry, construction and manufacturing.

One hundred and seventy-two submissions were received from organisations, businesses and individuals representing a range of interests and sectors. They are summarised in this *Summary of Submissions* to inform stakeholders of what was submitted and the views of others.

This summary is part of a suite of published reference documents, which includes MBIE's Regulatory Impact Analysis of the changes being made. It purely reproduces what submitters have said, and does not provide any discussion of MBIE's views on the matters raised. Additional supporting documents should be referred to for further information on MBIE's views on specific matters.

This summary document provides information on the number of submitters who responded to individual questions. It indicates the sectors which submitters identified as belonging to and lists some of the submitters by name. This is to provide the reader a sense of who was submitting.

Where relevant, the summary will indicate those submitters in support of a proposal, those against and those "unsure". The key themes that were apparent in submitter's comments are recorded, along with some key quotes that are indicative of those themes. Not every submitter and every submission is quoted in detail. Some businesses asked to remain confidential and private submitters are not named for privacy reasons. Their views were still recorded and some of their quotes were still used, without attribution.

At the end of each section of the Discussion Paper and the end of the online questionnaire, submitters were asked for their views on the impact of proposals. Some directly answered these questions, and this has been recorded and summarised. In other cases where relevant, submitter's views were also recorded against these questions so that their views were accounted for and considered.

How the analysis was undertaken

Approximately half of the submissions received (90 submissions) were in electronic form; eight of these were incomplete but contained sufficient information to be included in this analysis. Electronic submissions that were started, but contained no substantive information, being no answers to any question in sections two to eight of the Discussion Paper, were discarded (after attempts were made to contact the submitter).

There were 82 written submissions sent to the H&S Policy team. These submissions were saved and the submitter's details were recorded. Information was extracted from the written submissions and recorded under the relevant section and question posed in the Discussion Paper. In some cases, the written submitters identified the questions that they were responding to. In other cases, the H&S Policy team linked their responses to relevant questions. Where relevant, the H&S Policy team also linked responses to the summarising questions at the end of each section. These questions asked generally about the costs and/or benefits of the proposals in a section.

This submissions analysis summarises the number of submitters that responded to each question, noting the sectors the submitters described themselves as representing, or the sector identified by the H&S Policy team where the submitter did not provide that information. The names of some of the submitters from each sector are then noted (where the submitters did not otherwise request to remain confidential). This list of submitter's names is not exhaustive. It is intended to be illustrative of the range of submitters only and a number of significant organisations and businesses asked for their view to remain confidential.

The number of "yes"/"no"/"unsure" responses to each question was recorded. In many cases, a submitter recorded information against a question without selecting or providing a yes/no/unsure response. Where it was absolutely clear that a submitter was for or against a proposal, then "yes" or "no" was recorded against their answer for the purpose of recording these numbers. Where this was not the case, their submission was still analysed. The written responses were used to record key themes, where these were evident in the responses. In some cases, quotes from submitters were used to illustrate these themes, so that the submitter's voices were heard. Quotes are credited where the submitter gave permission. Where they are not credited, the submitter wished to remain confidential.

Some of the key themes identified in the submissions

The analysis of the risks and issues was generally endorsed

The analysis of the risks and issues presented in the Discussion Paper was generally endorsed by submitters, with poor quality imported plant and deficient guarding, maintenance, and risk management practice being a particular focus of many submissions.

Some submitters did, however, question if there were other "root" causes to injuries and fatalities in New Zealand, and suggested further information and analysis was needed.

There was broad support for the proposals and the clarity they would provide

The consultation process also demonstrated that there is broad support for the proposals for plant, structures and working at heights, and broad acceptance by stakeholders that the Australian Model Regulations offer the best foundation for new regulations. There were a few submitters that were outliers and who were generally opposed to the proposals. These submitters, in summary, expressed a preference to rely on a risk management approach to identifying risks and hazards, and mitigating them.

The additional clarity and detail about the obligations of Persons Conducting a Business or Undertaking (PCBUs) was of broad appeal, across business and worker groups alike. For example, the New Zealand Council of Trade Unions submitted that:

> *"Our submission is in support of a strong framework of regulation for plant, structures, and working at heights…Our concern is that when health and safety practices are left to the industry to develop*

in isolation from guiding regulation, then codes of practice and guidance will often serve business interests over the health and safety of those in the system".

The Council of Trade Union's submission was echoed by E tū Union:

"E tū members generally prefer clear rules over general duty requirements which are open to interpretation. Often workers are not able to contribute to the decision-making process by the PCBUs for various reasons. Clear rules have the advantage to provide more certainty".

The Northern Branch of the Employers and Manufacturers Association (EMA) feedback:

"This review is both timely and needed. Business needs clarity and objectiveness in Regulations to enable them to undertake their business while at the same time work with and inside the legal constructs that pertain to them and their sector. This clarity will then assist in determining a "level playing field" for all and weed out those who plan to flout the intentions and letter of the law."

A number of other submitters, from the construction industry in particular, also expressed support for clearer rules.

For some, the proposals were consistent with their status quo

There were also frequent comments from submitters - especially by those that have responsibility for high-risk plant - that "we do this anyway". It was clear that where a sector had a strong and effective representative body, or a business was big enough to have its own health and safety capability, the proposal broadly represented the status quo. In some cases, these submitters expressed some doubt about the necessity of regulations or detailed regulations setting out detailed obligations and requirements.

The proposals did not appear to be the status quo for some businesses, with particular concern emerging in the agricultural sector about the impact of the changes, especially with regard to aged plant. The model engineering sector was also concerned about the imposition of any changed or new requirements, and mustered 23 submissions (largely direct replicas of each other).

There is concern about health and safety competency, and access to advice

Worker and operator training and competency requirements were discussed by many submitters, and some provided detailed commentary on possible changes in their sectors – with the competency requirements of forklift operators and scaffolders receiving particular attention. Many noted that training did not always equal competency and conflating the two matters could lead to risk. Other submitters recognised the need to build health and safety competency across all levels within a business. For example, Auckland Council submitted:

"Health and Safety competence of managers, especially senior managers and directors needs to be addressed. There is an increasing focus on the qualifications of health and safety practitioners, using competent people for inspections and as designers etc. but no requirement for any level of training or competence of the people who set up businesses or control the decision making and thus adherence to legislation, regulation etc. within the business"

The ability of businesses to access necessary health and safety advice, and specialist advice, to support their risk identification and management was commonly cited as an issue. Submitters were also concerned about the availability of those who might deliver inspection and certification services, with one sector suggesting there was only a single specialist accessible to them, also nearing retirement.

Reformed regulations must be supported by up-to-date guidance materials

A significant number of submitters referred to current Approved Codes of Practice (ACoPs) and other guidance materials being incomplete or out of date. Some submitters expressed the view that updated or otherwise improved ACoPs and guidance was more important than new regulations, and a significant number stressed the need for developing new or updated guidance to support new regulations.

There is also the need to be aware of, and align with other changes

There was a sense that a number of sectors, and the organisations and business operating within them were struggling with "consultation fatigue" due to the wide range of matters that the Government is consulting on. A number submitted that it was necessary to be aware of the scope of changes and seek to align with them. For example, Engineering New Zealand submitted:

> *"While we agree with proposed changes to regulation under the Health and Safety at Work Act 2015, these changes cannot be made in isolation of the Government's intent to regulate engineers undertaking safety-critical work. As outlined further in this submission, we have serious concerns about the lack of clarity regarding the 'competent person' who can install, assemble, construct, commission, decommission or dismantle plant, particularly high-risk plant. A regulatory regime for engineers working on safety-critical work would remove this ambiguity and improve public confidence and safety".*

Motor Industry Association also raised this concern:

> *"As mentioned as part of our introduction to this submission, the Government has also consulted on the new proposed 10-year road safety strategy – Road to Zero. That draft strategy included reference to safety in work related vehicles. This HSW discussion paper is also about work related vehicles but makes no mention of the other government proposals or any attempt to align them. This matter needs to be made clear before any proposed changes are considered".*

Sector-specific feedback and the need for ongoing engagement

A number of submitters provided constructive, technical advice on how the regulations could best cater to the specifics of different industries or classes of equipment. MBIE's H&S Policy team will make use of this advice at the drafting stage of formulating regulations and engage further where required. This was something many submitters noted they were keen to see done, for example, KiwiRail submitted:

> *"KiwiRail notes that much detail about the workability of the regime will depend on regulations expected to be in force in 2021, as well as any safe work instruments, codes of practice or guidance developed to support these policy developments. KiwiRail encourages ongoing consultation on these and welcomes all opportunities to engage with MBIE as matters progress. In particular, we welcome MBIE's use of the Australia Model Regulations as a base for best practice. The Australian Model Regulations reflect many similar practices and problems as those experienced by industry in New Zealand. In our view, the Australian experience will help ensure that the policy developed by MBIE to achieve an improved health and safety regime will be balanced and evidenced".*

Section 2: Protections for people working with plant

The Health and Safety at Work Act 2015 (HSWA) defines plant as:

- any machinery, vehicle, vessel, aircraft, equipment, appliance, container, implement or tool
- any component of these things
- anything fitted or connected to these things.

Feedback on proposals for improving the management of risk from plant is detailed below. Feedback specific to mobile plant is at ***Section 3*** and for high-risk plant is at ***Section 5***. The proposals for the management of risks from plant in this section included:

Summary of submissions received

Set a mandatory requirement for plant to be guarded

2.1	Should there be a default hierarchy of controls for guarding?
2.2	Should there be a mandatory requirement to ensure appropriate guarding?

Question 2.1

There were 71 submitters who answered this question. This included three from the agriculture sector, three from the forestry sector, 12 from the construction sector, three from the manufacturing sector, four from the engineering sector, two from the transport and freight sector, three from fisheries, four from the amusement and theme parks sector, five from the energy sector, along with two territorial authorities.

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand, Universal Homes Ltd, Oji Fibre Solutions, Recreation Safety Engineering, the Ports of New Zealand, the New Zealand Fishing Health and Safety Forum, Regional Facilities Auckland, Auckland and Dunedin City Councils. The Council of Trade Unions and E tū Union also submitted.

Fifty-nine of the submitters responded "yes" in support of the proposal that there be a default hierarchy of controls for guarding. Submitters for the proposal included a number of sector representatives such as the Agricultural Leaders' Health and Safety Action Group and Federated Farmers, along with the Meat Industry Association. It was also supported by Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand and Construction Health and Safety New Zealand. The Forestry Industry Safety Council also submitted in support.

Of those in support, the rationale included that "*good PCBUs do this anyway*" and that it was a good or sensible approach. Three referenced the Australia/New Zealand Standard AS/NZS:4024 *Safety of machinery Part 1503: Safety-related parts of control systems – General principles for design* and two regulation 208 of

the Australian Model Regulations[1]. A number of submitters referenced the need for good guidance on how the controls could be applied to make their application as easy as possible.

Four submitted "no" against the proposal, including Contact Energy which commented, "*A default hierarchy of guarding implies that one type of guard is better than another. This is not necessarily true, in that a robust mechanical guard, may be better on one machine type than an electronic sensing guard and vice versa. PCBUs should be encouraged to select the best type for the application. Contact supports a list of guarding with a requirement to select the best type for a given application*". A similar sentiment was submitted by the construction company that was against the proposal.

Question 2.2

There were 75 submitters who answered this question. This included four from the agriculture sector, two from the forestry sector, fourteen from the construction sector, four from the manufacturing sector, six from the engineering sector, three from transport and freight, three fisheries, eight from the amusement and theme parks sector, seven from the energy sector, along with four territorial authorities.

Submitters included Federated Farmers, Civil Contractors New Zealand Inc, Engineering New Zealand, Recreation Safety Engineering, Ports of New Zealand, the New Zealand Fishing Health and Safety Forum, AJ Hackett Bungy New Zealand, Genesis, Mercury and Contact Energy, Methanex, and the Council of Trade Unions and E tū Union.

Fifty-six of the submitters responded "yes" in support of the proposal that there be a mandatory requirement to ensure appropriate guarding. Of those in support, four mentioned the AS/NZS:4024 *Safety of machinery Part 1503: Safety-related parts of control systems – General principles for design*. A number also commented that the obligation could only be "as fair as reasonably practicable" and how "appropriate" might be defined, commenting that guidance would be needed. There was also concern was expressed about the application of such a requirement in relation to older equipment. These comments were similar to those who submitted against the proposal (outlined below).

The Council of Trade Unions submitted in support commenting:

> "*PCBUs* [Person Conducting a Business or Undertaking] *have a duty to ensure that any controls introduced to the workplace do not create new risks – this applies to guarding. With a mandatory requirement to ensure that guarding is appropriate PCBUs have an even playing field as to guarding requirements. This would assist worker certainty that guarding controls introduced are safe and fit for purpose in any workplace*".

Four submitted against the proposal and three were unsure. The main rationale given was, in summary, that section 30 of HSWA requires a PCBU to eliminate risk in so far as is reasonably practicable, and that mandatory guarding might not always be reasonably practicable. One of these submitters was an engineer who commented, "[*T*]*here are likely to be many examples where guarding doesn't provide a significant decrease in risk or perhaps even creates additional risks so therefore the wording would need to allow for alternative solutions where they can be demonstrated to provide equivalent or better risk reduction overall*".

There were also 12 submitters who did not record a yes/no/unsure answer but recorded a comment. These also generally expressed a concern that mandatory guarding might not always be possible or appropriate. For example, the New Zealand Fishing Health and Safety Forum submitted:

> *"The Forum supports regulation to ensure that machine guarding is appropriate, but is concern that the generic standard is not suitable for much on the on-board machinery on fishing vessels".*

[1] https://www.safeworkaustralia.gov.au/system/files/documents/1902/model-whs-regulations-15-january-2019.pdf, accessed 30 October 2019

Presence-sensing safeguarding systems

2.3	Should record-keeping be required for presence-sensing safeguarding systems?

There were 59 submitters who answered this question. This included three from the agriculture sector, two from the forestry sector, 10 from the construction sector, three from the manufacturing sector, four from the engineering sector, three from transport and freight, three fisheries (including one worker), three from the amusement and theme parks sector, six from the energy sector along with four territorial authorities.

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, the Ports of New Zealand, Genesis, Mercury and Contact Energy, Methanex, and the Auckland, Christchurch and Dunedin City Councils. The Council of Trade Unions and E tū Union also submitted.

E tū Union submitted that, "[R]ecords must show evidence that worker engagement in the risk management process has taken place and that health and safety representatives have been consulted. Records must show that ergonomic, human factor and occupational health risk have been taken into account especially in the design stage". A similar submission was made by the Council of Trade Unions.

Thirty nine of the submitters responded "yes" in support of the proposal that recording keeping should be required for presence-sensing safeguarding systems. Of those in support, the rationale included that such measures were important to understand the use of machinery, testing and maintenance. The New Zealand Institute of Safety Management commented:

> *"The current guidance is clear that safety devices should be regularly checked and tested, and records kept. This should include all guarding with adequate record keeping for maintenance and inspection. There have been prosecutions where PCBUs have failed to do so. We think this duty could be made more explicit in sector guidance - with clear illustrations of frequency and type of inspection and test required -for example on a press or guillotine".*

Eight submitted against the proposal and three were unsure, including two private individuals. Of those who did not support the proposal, there was no discernible theme to their disagreement but one submitter noted that, "records won't protect against injury". The Meat Industry Association echoed this sentiment submitting:

> *"We have concerns that a simple requirement to keep records may become a bureaucratic "tick-box" exercise. Such an administrative process may not provide increased safety. The focus should be on the identification of risk and could be linked to higher risk plant".*

Emergency stops, operational controls and warning devices

2.4	Should there be requirements for emergency stop controls, operational controls, and warning devices on plant, and a requirement to ensure proper use of plant?

There were 73 submitters who answered this question. This included four from the agriculture sector, four from the forestry sector (including three contractors), 16 from the construction sector (including three identifying as workers), three from the manufacturing sector, five from the engineering sector, three from transport and freight, three from the fisheries sector, four amusement and theme parks, seven from the energy sector along with four territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Forum, Federated Farmers of New Zealand, the Forestry Industry Safety Forum, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Engineering New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design, Ports of New Zealand, AJ Hackett Bungy New Zealand, Genesis, Mercury and Contact Energy, Methanex, the

Auckland, Christchurch and Dunedin City Councils. The Council of Trade Unions and E tū Union also submitted.

Fifty-three of the submitters responded "yes" in support of the proposal that there should be a requirement for emergency stop controls, operational controls, and warning devices on plant, and a requirement to ensure proper use of plant. Of those in support, the rationale included the proposed requirement would support existing guidance, and three references were made to AS/NZS:4024 *Safety of machinery Part 1503: Safety-related parts of control systems – General principles for design* and/or existing standards, and two the Australian Model Regulations. There was also commentary about the need to consider aged plant, or plant where an emergency stop could cause damage.

Of the two submitters who did not support the proposal, only Oji Fibre Solutions commented on their rationale, that the requirement should be part of the Prescribed Risk Management Process. This was also the view of the Meat Industry Association, who along with 15 others did not indicate a yes/no/unsure answer but provided written commentary. These submitters included the Ports of New Zealand which commented:

> *"The Emergency Stop function is one of those deceptively simple concepts that have managed to get very complicated over time. Not every machine needs or can benefit from an emergency stop. In some cases, it may lead to an unreasonable expectation of safety from the user".*

Of the three submitters that were unsure, some concern was expressed about the practicality and cost of the proposed requirement.

Ensure guarding and safety features manage risks during cleaning and maintenance

2.5	Should there be requirements for guarding and operational controls to ensure the safety of people cleaning and maintaining plant?

There were 70 submitters who answered this question. This included four from the agriculture sector, three from the forestry sector, 14 from the construction sector, three from the manufacturing sector, five from the engineering sector, three from the transport and freight sector, three from the fisheries sector (including one identifying as a worker), four amusement and theme parks, seven from the energy sector along with four territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, Federated Farmers of New Zealand, the Forestry Industry Safety Council, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Universal Homes Ltd, Oji Fibre Solutions, Engineering New Zealand, the Ports of New Zealand, Genesis, Mercury and Contact Energy, Methanex, the Auckland, Christchurch and Dunedin City Councils. The Council of Trade Unions and E tū Union also submitted.

Fifty-nine of the submitters responded "yes" in support of the proposal but there was reference to the practicality of it in all situations. Oji Fibre Solutions commented, "[Y]es in principle but this should be addressed using the Prescribed Risk Management approach, especially as the range of different guarding and cleaning/maintenance scenarios means it will be difficult to prescribe a standard approach". The New Zealand Association of Metal Recyclers referenced Standard Operating Procedures.

E tū Union submitted, "[W]e support the use of emergency stop controls, operational controls, and warning devices on plant, and a requirement to ensure proper use of plant".

Two submitted against the proposal, including a company from the fishing sector which did not provide a comment as to why. The other was a private individual in the agricultural sector who commented, "Clear LOTO [lock-out, tag-out] requirements would be better". A similar comment was made by Dunedin City Council, Civil Contractors New Zealand In and Contact Energy.

One submitter who requested confidentiality was unsure about the proposal noting that, "[S]ome circumstances for aerial ropeways maintenance, especially in old plant, require the machinery to be operating in order for inspection/maintenance to take place".

Better manage risks from plant throughout its lifecycle

2.6	Should there be requirements on PCBUs to address the risks from installing, constructing, commissioning, and decommissioning and dismantling plant?
2.7	Should there be a requirement to manage the risks of plant that is not in use?

Question 2.6

There were 71 submitters who answered this question. This included four from the agriculture sector, three from the forestry sector, 15 from the construction sector (including three workers), three from the manufacturing sector, five from the engineering sector, three from the transport and freight sector, three from fisheries, three amusement and theme parks, seven from the energy sector along with four territorial authorities.

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, Oji Fibre Solutions, Engineering New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, AJ Hackett Bungy New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, the Auckland, Christchurch and Dunedin City Councils. The Council of Trade Unions and E tū Union also submitted.

Fifty-nine of the submitters responded "yes" in support of the proposal that there be requirements on PCBUs to address the risks from installing, constructing, commissioning, and decommissioning and dismantling plant. Supporters included the Council of Trade Unions and E tū Union. E tū Union submitted:

> *"We support the PCBU managing or controlling the plant to ensure that maintenance, inspection and testing of the plant is carried out by a competent person. It is important however to clearly define a competent person and we would support the definition used in the Australian Model Regulations".*

The need to define who is a competent person was also referenced by an energy sector representative. Of the thirty-three submitters that recorded comments in support of the proposals, the other themes emerging that were:

- the proposed obligations also existed through the general obligations imposed under HSWA. This was noted by, for example, AJ Hackett Bungy New Zealand and the New Zealand Institute of Safety Management.
- there were overlapping duties, and that roles and responsibilities would need to be clarified. This was, for example, the view of Construction Health and Safety New Zealand.

Of the two submitters who did not support the proposal, a contractor from the forestry sector submitted that the obligations were the manufacturers. The two submitters that were unsure included a private individual and an energy sector submitter that wished to remain anonymous. The energy sector submitter commented:

> *"In isolation, this proposal does not distinguish between fixed plant and mobile plant; this needs to be defined. We support this proposal for fixed plant, e.g. moulding machine, transformer. We do not support this for mobile plant, e.g. excavator, MEWP* [mobile elevated work platforms] *which is commissioned by the manufacturer/ supplier".*

Engineering New Zealand was one of nine submitters that did not record a yes/no/unsure answer and submitted that further guidance was needed to clarify who was a "competent person". The Forestry

Industry Safety Council submitted that regulations were not necessary as the matter was already dealt with under the general duties in HSWA (echoing the view of some other submitters).

Question 2.7

There were 66 submitters who answered this question. This included four from the agriculture sector, four from the forestry sector, 14 from the construction sector, three from the manufacturing sector, four from the engineering sector (three being private individuals), two from transport and freight, three from the fisheries sector, three from the amusement and theme parks sector, seven from the energy sector along with four territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Oji Fibre Solutions, Recreation Safety Engineering, the Ports of New Zealand, Genesis, Mercury and Contact Energy, Methanex, the Auckland, Christchurch and Dunedin City Councils. The Council of Trade Unions also submitted.

Forty-three of the submitters responded "yes" in support of the proposal that there be a requirement to manage the risks of plant that is not in use. Thirty of those submitters left a comment, most of which re-enforced their positive response. AJ Hackett Bungy New Zealand and Genesis Energy both commented on duties that already existed under HSWA. Two submitters, including the Ports of New Zealand and one construction sector submitter supported the approach in the Australian Model Regulations. Two other submitters made specific reference to high-risk or hazardous plant. For example, Scaffolding, Access and Rigging New Zealand submitted:

> *"SARNZ agrees there should be a requirement to ensure high risk plant (For example, suspended scaffold, mast climbing scaffold) that is not in use, should so far as reasonably practicable be protected from unauthorised use or interference".*

There were six submitters against the proposal, including Federated Farmers of New Zealand, and submitters from the forestry, construction and fisheries sectors that wished to remain anonymous. If there was a theme to be drawn from these submitters' feedback, it was that obligations should only be imposed if a decision was made to use the plant again. This was also the view of the Motor Industry Association.

There was also no clear theme from the four submitters who recorded "unsure"; two questioned the need for the obligation. The Forestry Industry Safety Council did not record a yes/no/unsure answer but also asked for clarification about the scope of the proposal submitting:

> *"…providing clarity about what "not in use" means would be helpful. Is "not in use" time bound or is it plant that has been decommissioned, put in storage or disabled in some way? We would consider a piece of stationary mobile plant that is idling is in use. In providing this comment, risks considered included hazardous substance release/spill or release from height of an object (eg: an excavator boom attachment). In forestry, all mobile plant attachments are lowered to the ground when not in use. Log yarder ropes are lowered overnight/weekend".*

Expand on the general obligation on PCBUs in HSWA to maintain plant

2.8	Should there be a requirement to ensure plant is maintained, inspected and tested by a competent person and to the manufacturer's recommendations or otherwise according to a competent person?

There were 74 submitters who answered this question. This included four from the agriculture sector, three from the forestry sector, 17 from the construction sector (including three workers), three from the manufacturing sector, five from the engineering sector (three being private individuals), four from transport and freight, four from the fisheries sector, three from the amusement and theme parks sector, seven from the energy sector along with four territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Universal Homes Ltd, Oji Fibre Solutions, Recreation Safety Engineering, the Ports of New Zealand, the Road Transport Forum New Zealand, the New Zealand Fishing Health and Safety Forum, Genesis, Mercury and Contact Energy, Methanex, the Auckland, Christchurch and Dunedin City Councils. The Council of Trade Unions and E tū Union also submitted.

Forty-eight of the submitters responded "yes" in support of the proposal that there be a requirement to ensure plant is maintained, inspected and tested by a competent person and to the manufacturer's recommendations or otherwise according to a competent person. Thirty-five provided some comment as to their rationale. A key theme arising was that there was a need to be clear about who was a "competent person". This was referenced by 10 submitters including Recreation Safety Engineering and Civil Contractors New Zealand Inc. It was also referenced by:

- one submitter who wished to remain anonymous that did not support the proposal; saying that there was no way to assess competency for ropeway maintenance in New Zealand.
- two submitters that were unsure, one from the forestry sector and one from the energy sector that wished to remain anonymous.
- five submitters that otherwise left a comment including the Council of Trade Unions and E tū Union along with the New Zealand Institute of Safety Management.

There were nine submitters in total that did not support the proposal. Federated Famers of New Zealand submitted that the proposal would not add anything to the general duties under HSWA and the Meat Industry Association submitted that it should be based on risk. Risk was also referenced by one of the five submitters that were "unsure" about the proposal. Two of these submitters expressed some concern about the implementation of the proposal, with one construction sector submitter recording:

> *"This has the potential to create a whole new industry checking all plant. Need to be careful with the definitions / requirements to not tie industry up in red tape for little benefit. Most people could check the handles / guarding on a grinder – this doesn't need a formal competency or mechanic".*

Some concern was expressed about including the manufacturer's recommendations in the obligation. This was referenced by Contact Energy, Oji Fibre Solutions and Hoist and Garage Equipment. Contact Energy was concerned that manufacturers' recommendations could be too generic and Oji Fibre Solution was concerned that they might set a different or lower standard. Hoist and Garage Equipment submitted:

> *"Should be to a competent person, provided that the competent person has accredited skills or meets industry standards. It does not work to "assess based on manufacturers specifications because too often those specifications fall well short of the relevant NZ/Australian specifications".*

There were at least three submitters that suggested the proposed obligation would need to be supported by some of Approved Code of Practice or guidance, including Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand.

Ensure alterations and modifications do not create risks to health and safety

2.9	Should there be a requirement to ensure health and safety risks from plant are not created or increased by using plant for new purposes or altering it?
2.10	Is it necessary to require a competent person to assess whether or not the proposed new use increases risks to health or safety?

There were two options presented for managing the risk presented by alterations and modifications of plant. They were:

- Option 1 – Follow the approach in the Australian Model Regulations
- Option 2 – Enhance education and guidance

Question 2.9

There were 74 submitters who answered this question about whether there should be a requirement to ensure health and safety risks from plant are not created or increased by using plant for new purposes or altering it. This included four from the agriculture sector, four from the forestry sector, 16 from the construction sector, four from the manufacturing sector, five from the engineering sector, four from transport and freight, three from the fisheries sector, four from the amusement and theme parks sector, seven from the energy sector, along with four territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, Federated Famers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Universal Homes Ltd, Layher Ltd, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, the Ports of New Zealand, the Road Transport Forum, AJ Hackett Bungy New Zealand, Genesis, Mercury and Contact Energy, Methanex, the Auckland, Christchurch and Dunedin City Councils. The Council of Trade Unions and E tū Union also submitted.

There were only three submitters against the proposal. Two of them commented that such a requirement was already in place – one of these submitters referenced the general duties in HSWA. Federated Farmers of New Zealand (which did not record a response but left a comment), and AJ Hackett Bungy New Zealand (which recorded "yes"), also referenced HSWA in their responses. Federated Farmers submitted:

> *"It is unclear what additional specificity would add to the broader yet encompassing requirements outlined under section 36 of the Health and Safety at Work Act 2015. We support greater guidance around these requirements as they relate to the maintenance, inspection and testing of plant as an alternative".*

One submitter who wished to remain anonymous (which submitted against the proposal) said alteration should be dealt with through a risk assessment process:

> *"This doesn't need to be covered as an explicit requirement. It should be part of a normal risk assessment for use of equipment, eg assess risks and apply suitable controls. You may 'increase' H&S risks for that specific plant by using the plant for a new purpose, but it may actually result in lower H&S risks than using existing equipment to complete the task. Risks may be created, but may be lower risk than existing plant".*

The Meat Industry Association and Oji Fibre Solutions both specifically referenced the Prescribed Risk Management Process. They were two of the 14 submitters that left comments without recording a yes/no/unsure answer. These submitters' comments were broadly similar to those of the fifty-four submitters that responded "yes" in support of the proposal (of whom 36 left a comment). The key themes in their comments:

- highlighted the importance of undertaking a new risk assessment where alternations were made (six submitters who largely wished to remain confidential).
- made reference to change management practices, with one noting that, "[C]hange management is often not done at all or poorly thought out: (six submitters, largely private individuals).

With regard to change management practices, E tū Union submitted:

> *"Alterations are made to fit the purpose and guarding is either non existing or not satisfactory. Often older plant is noisy and noise reduction is not considered. Workplaces are often in poor state of repair and management skills are lacking".*

Three submitters clearly indicated their support for the Australian Model Regulations. They were the Ports of New Zealand, Auckland Council and the Council of Trade Unions.

Four submitters including Scaffolding, Access and Rigging New Zealand, Layher Ltd and the Motor Industry Association suggested that plant should not be altered, or only altered consistent with the manufacturers' specification or upon advice from a competent person. Layher Ltd's submission is representative:

> *"We believe the PCBU should NOT be permitted to alter plant or authorise the use of altered plant unless in accordance with the manufacturer's instructions or assessed by a New Zealand Chartered Professional Engineer (CPEng) with experience in that field".*

Question 2.10

There were 72 submitters who answered this question. This included four from the agriculture sector, four from the forestry sector, 16 from the construction sector (including three workers), four from the manufacturing sector, five from the engineering sector, four from transport and freight, three from the fisheries sector, four from the amusement and theme parks sector, seven from the energy sector, along with four territorial authorities.

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, Layher Ltd, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Ports of New Zealand, Road Transport Forum New Zealand, Genesis, Mercury and Contact Energy, Methanex, the Auckland, Christchurch and Dunedin City Councils, and the Council of Trade Unions.

Forty-three of the submitters responded "yes" that it is necessary to require a competent person to assess whether or not the proposed new use of altered plant increases risks to health or safety; twenty-six left a comment. A key theme in the comments was that there was a need to define who was a competent person (six submitters, including Construction Health and Safety New Zealand). There was mixed feedback on this for example the New Zealand Certification Board for Inspection Personnel Inc (CBIP) submitted that:

> *"The person making this assessment needs to be further up the competence hierarchy than a person doing a routine in-service inspection. A "bigger view" of the risks that might arise from any proposed modification needs to be taken. CBIP submits that the CPEng (mechanical) would be the logical person to be assigned this role".*

Conversely to the CBIP, Upper Hutt Hire Ltd submitted that, "…the threshold for a competent person should be low to ensure the risk is owned by the people using the equipment or systems". This was similar to a submission by a worker who commented that, "[W]orkers are the ones that are aware of what the machinery is being used for and whether it will affect any other part of their processes".

There were a range of reasons given by the six submitters against the proposal with no clear theme emerging. One submitter who requested confidentiality re-iterated their response to Question 2.9, expressing a concern about being too prescriptive. A concern about the level of prescription was also expressed by the Meat Industry Association, which also made a comment on the need to define competency.

> *"Rather than prescriptive requirements for having "competent persons" sign off plant, when the focus should be on ensuring there is a proper risk management process that is properly documented and recorded in place. This also leads to the definition of what is "competent"".*

The need to define competency was the only clear theme in the responses of the six submitters that recorded "unsure". It was mentioned by four of them, and by two of the 14 submitters that did not record a yes/no/unsure answer. Scaffolding, Access and Rigging New Zealand, Layher Ltd and the Motor Industry Association were three of these submitters, reiterating their responses to question 2.9. The Roofing Association of New Zealand was another, submitting:

"A definition around alteration is required. If the alteration is outside the manufacturer's specifications then it could require a competent person through to a Chartered Professional Engineer depending on what the alteration is".

Cover plant, except manually powered, hand-held plant

2.11	Do you agree with extending requirements to plant (except manually powered, hand-held plant)? What are the implications?
2.12	Should the general requirements for plant apply to vessels and aircraft? What are the impacts of this?
2.13	Should requirements for plant apply to powder-actuated tools?

There were two options presented for covering plant. They were:

- Option 1 – Follow the Australian Model Regulations
- Option 2 – Retain the current certificate of competence requirements to use a powder-actuated tool (which would be subject to review in the next phase of regulatory work on hazardous work).

Question 2.11

There were 61 submitters who answered this question. This included four from the agriculture sector, one from the forestry sector (that wished to remain confidential), 12 from the construction sector, three from the manufacturing sector, four from the engineering sector, three from the transport and freight sector, four from fisheries, three from amusement and theme parks, seven from the energy sector along with three territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, Federated Farmers of New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, and the Council of Trade Unions.

Sixty-one of the submitters responded "yes" in support of the proposal to extend the requirements to hand-held plant (except manually powered, hand-held plant). Although asked about the implications, only 18 submitters left comments, if few referencing the implications. One worker submitted:

"Increase of better quality plant will be in place and improved working practices. There will initially be additional expense but is required to be brought up to standard".

The New Zealand Arboricultural Association Inc queried what plant would be capture by the proposal. Both the Meat Industry Association and Mercury Energy (that did not record a yes/no/unsure answer) also posed the same question, along with another energy sector representative who was "unsure" of the proposal. There were five submitters in total that recorded "unsure". Two of them were concerned about the impact of implementing the proposal; this was also the concern of a forestry contractor who responded "no" against the proposal.

There were five submitters in total against the proposal, including the Ports of New Zealand and the New Zealand Fishing Health and Safety Forum. The Ports of New Zealand submitted:

"Adequate training should ensure that those who use the machine are competent to use it safely. This includes ensuring they have the correct skills, knowledge, experience and risk awareness, and are physically suited to the task. Formal qualifications/licenses should be needed, e.g. for nail guns, Ramset guns".

Question 2.12

There were 39 submitters who answered this question. This included three from the agriculture sector, one from a contractor in the forestry sector (that wished to remain confidential), seven from the construction sector (including two workers), four from the engineering sector, two from transport, four from the fisheries sector (including a worker), three from the amusement and theme parks sector, six from the energy sector along with one territorial authority that wished to remain confidential.

Submitters included Federated Farmers of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Talley's Group Ltd Nelson – Deep-Sea Division, the Ports of New Zealand, the New Zealand Fishing Health and Safety Forum, AJ Hackett Bungy New Zealand, Genesis, Mercury and Contact Energy, and Methanex.

There were 11 submitters in support of the proposal, five "unsure", 14 against and nine that otherwise left a comment. This included six submitters that could be identified as in the fisheries sector, or closely aligned with it. They included the New Zealand Fishing Health and Safety Forum, Talley's Group Ltd Nelson – Deep-Sea Division and a number of submitters that wished to remain confidential.

All fisheries sector submitters, with the exception of the submitter identifying as a worker, were against the proposal to include vessels in the regime. The worker submitted, "[I]f there are risks involved, of course".

The New Zealand Fishing Health and Safety Forum submitted:

> *"The Forum submits that vessels, and the plant on them, will be more effectively regulated by specific regulations rather than being included in the general regulations…The impact of including both vessels and the plant on them in the definition of plant reduces clarity for operators and crew".*

Confusion was also mentioned by the Certification Board for Inspection Personnel Inc and Civil Contractors New Zealand Inc, neither of which recorded a yes/no/unsure answer, but both of which provided specific examples of plant creating a level of confusion currently, which included:

- truck-loader-type cranes on barges
- floating structures to support pumps and other plant
- drones and other aircraft are used during construction and maintenance work.

The New Zealand Fishing Health and Safety Forum expressed concern in its submission, about the overlap between HSWA and maritime legislation, regulation and rules. Overlap between these rules and aviation legislation, regulations and rules was in some way mentioned by:

- none of the 11 submitters in support of the proposal. Of the five that recorded a comment, the theme was that the risks of vessels and aircraft as plant need to be addressed
- two of the five submitters that were "unsure" who were the only ones to leave comments; both questioning the requirements already in place
- nine of the 14 submitters against the proposal including a number from outside the fishing industry such as Federated Farmers of New Zealand
- three of the nine submitters that did not record a yes/no/unsure response but otherwise left a comment, including the Ports of New Zealand.

Question 2.13

There were 50 submitters who answered this question. This included three from the agriculture sector, one contractor from the forestry sector (that wished to remain confidential), 14 from the construction sector, four from the engineering sector, three from transport and freight, two from the fisheries sector, two from the amusement and theme parks sector, five from the energy sector, along with three territorial authorities.

Submitters included Federated Farmers of New Zealand, Scaffolding Access and Rigging, Hilti (New Zealand) Ltd, Universal Homes Ltd, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, the Ports of New Zealand, Regional Facilities Auckland, Genesis and Mercury Energy, Methanex, Auckland and Christchurch City Councils, the New Zealand Institute of Safety Management and the Council of Trade Unions. The Council of Trade Unions submitted in support of the proposal saying:

> *"The regulations should be comprehensive for clarity. Rather than returning to the piecemeal health and safety system from before the current Act, where it was difficult to locate duties through multiple legislative instruments. It would make sense for powder-actuated tools to be included".*

Hilti (New Zealand) Ltd provided a detailed submission on the types of tools that might be captured and the risks presented by powder-actuated tools. It was their view, "…to only allow Low Velocity Power Actuated Tools for the use on construction sites and ban High Velocity Tools from construction sites" due to the risk they present.

Thirty-four of the submitters responded "yes" in support of the proposal to apply the general requirements for plant to powder-actuated tools. Sixteen of these submitters left a comment, with many highlighting how dangerous these tools were. Two of these submitters each made some sort of reference to:

- applying the general requirements to all tools that might be high risk, or use some form of explosive propellant including Construction Health and Safety New Zealand
- extending the proposal to include gas-powered tools, including Recreation Safety Engineering and the Certification Board for Inspection Personnel Inc
- requiring licensing or certification of users, including the Ports of New Zealand and the New Zealand Roofing Association.

The certification of users was referenced by three of the six submitters who recorded "no" against the proposal, along three other submitters who recorded a comment without recording a yes/no/unsure answer. It received eight references in total.

No theme emerged in the comments from the other three submitters who recorded "no", but one suggested that, "These should be covered by the firearms act, as they are by definition a fire arm". Both of the two submitters who recorded "unsure" did not know what powder-actuated tools were.

Additional requirements for certain kinds of plant

2.14	Should there be specific requirements for plant that lifts or suspends loads?
2.15	Do we need a specific requirement that, when plant is not specifically designed for lifting, it must not cause a greater risk to health and safety? *Please consider what extra benefit or impact this would have in addition to what is proposed for all plant (refer to question 2.9) – that if plant is used for a purpose other than which it was designed, a person must ensure it does not have risks to health and safety (as assessed by a competent person).*
2.16	Are the exemptions for stunt work, acrobatics or theatrical performances appropriate? If not, why? Is there anything else that should be excluded?
2.17	Should the alternative control method be provided for tree-lopping?
2.18	Is it necessary to refer to AS/NZS 1891 for harnesses?
2.19	"Plant that lifts or suspends loads" is not defined in the Australian Model Regulations. Should this be defined in our regulations?

Question 2.14

There were 67 submitters who answered this question with no submitters recording that they were unsure. There were three submitters from the agriculture sector, three from the forestry sector, 16 from the construction sector (including three workers), three from the manufacturing sector, four from the engineering sector, four from transport, five from the fisheries sector (including a worker), three from amusement and theme parks, six from the energy sector along with three territorial authorities.

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Universal Homes Ltd, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Ports of New Zealand, the Road Transport Forum New Zealand, Genesis and Contact Energy, Auckland and Christchurch City Councils, the Certification Board for Inspection Personnel Inc, the New Zealand Institute of Safety Management, and The Council of Trade Unions and E tū Union.

Fifty-six of the submitters responded "yes" in support of the proposal, with 39 leaving a comment. Eight of those leaving a comment pointed to the high-risk nature of this type of plant. This included the Council of Trade Unions and Ruapehu Alpine Lifts Ltd, For example, Scaffolding, Access and Rigging New Zealand submitted:

> *"SARNZ agrees there should be specific requirements for plant that lifts or suspends loads, for example, suspended scaffolds, mast climbing scaffolds. This type of plant has higher risks than static plant and requires regular inspection and maintenance by an appropriately competent person".*

Four submitters supporting the proposal made specific reference to drawing from the approach in the Australian Model Regulations, including Auckland Council and Federated Farmers of New Zealand. Federated Farmer submitted that, "…the approach used in the Australian Model Regulations appears reasonable and can be tailored to specific instances…". Another four made reference to the approach in the United Kingdom, in particular, the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER). These submitters included the Ports of New Zealand, the Lifting Equipment Engineers Association, the New Zealand Institute of Safety Management and Construction Health and Safety New Zealand. The Lifting Equipment Engineers Association submitted:

> *"…following Australian Model Regulations only highlights a small portion of what should be adopted as best practice. A particular example relates to Dogging Work. It is defined as "the application of slinging techniques, including the selection and inspection of lifting gear, to safely sling a load". Examples of poor practice in the training of High Risk Work Licences, such as Dogging and Rigging, exacerbates the need to adopt stringent measures to ensure a competent person is controlled for all areas of high risk work. It is generally accepted by both Australian and New Zealand firms that significantly more training is required to ensure a newly licensed/trained Dogman and Rigger can be deemed competent. It also assumes that Dogman* [sic] *are trained in the inspection of lifting gear. This is an incorrect assumption".*

There were five submitters against the proposal. Oji Fibre Solutions and a submitter requesting confidentiality submitted that obligations were adequately covered already. Oji considered the, "Prescribed Risk Management Process is sufficient". Two energy sector submitters were also against the proposal. One expressed a desire for a "high level general requirement" the other submitted that, "There is already AS/NZS 2550 [AS 2550 SET-2011 Cranes, hoists and winches - Safe use Set] which covers in detail the requirement. This proposal would add additional regulatory complexity".

There were five submitters that did not record a yes/no/unsure answer including the Forestry Industry Safety Council. It submitted:

> *"This question raises several issues and challenges due to the range of plant employed in forests and the tasks they are engaged in, particularly on harvesting sites…Over the last twenty years both*

type and application of forestry mobile plant has changed significantly. So too have the international standards to which this equipment is built. Various regulations, codes and, more lately, gazette notice variations have also sought to clarify requirements. To some extent this has cumulated in a degree of confusion about standards of compliance and inspection".

Question 2.15

There were 59 submitters who answered this question about the need for a specific requirement that, when plant is not specifically designed for lifting, it must not cause a greater risk to health and safety. This included three from the agriculture sector, one contractor from the forestry sector, 13 from the construction sector, three from the manufacturing sector, four from the engineering sector, three from transport and freight, three from the fisheries sector, three from amusement and theme parks seven from the energy sector along with three territorial authorities.

Submitters included Federated Farmers of New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Auckland and Christchurch City Councils, the Certification Board for Inspection Personnel, Hoist and Garage Equipment, the New Zealand Institute of Safety Management and the Council of Trade Unions.

Thirty-two of the submitters responded "yes" in support of the proposal with twenty leaving a comment. There were no key themes identifiable from the comments other than that most confirmed their support in some way. A worker from the construction sector submitted in support saying:

"Plant used for lifting is designed for that taking into account the effect on plant which carrying a load. If any type of machinery is allowed to be used then the risk of toppling/load detachment is increased versus if we used the specific machinery".

There were 10 submitters against the proposal from across a range of sectors, with the key theme being that the risks were adequately covered, either in the general duties in HSWA, through the use of the Prescribed Risk Management Process, or in the proposal at Question 2.9. The only submitter not referencing one of those previous rationales commented, "[I]mpose a weight and height limit, and no persons permitted beneath it".

There were nine submitters that recorded "unsure", three of them making comments similar to those against the proposal; that they risks were adequately covered. One energy sector submitter that wished to remain confidential commented that they supported the general intent of the proposal but preferred it to be given effect through guidance material.

There were six submitters that did not record a yes/no/unsure answer, with two of those requiring further information or clarification of the proposal and its effect, for example, Civil Contractors New Zealand Inc submitted:

"As mentioned under Question 2.9 there needs to be some definition around the words "not specifically designed for". The use of a particular piece of plant can change due to a different attachment. The process around considering "not cause greater risk to Health and Safety" will need further work. When we say greater risk, greater than what? What are we comparing the risk too? e.g. does this mean we compare excavators for lifting pipes into trenches vs cranes or does it mean an excavator digging a trench vs lifting a pipe? Excavators lift a very wide range of items soil, rocks, logs, pipes we need a better definition here".

Question 2.16

There were 26 submitters who answered this question about exemptions for stunt work acrobatics or theatrical performance, including Entertainment Production Services Ltd and Regional Facilities Auckland which are both involved in this sector.

There was one submitter from the agriculture sector (Core H&S Ltd), six from the construction sector (including two workers), four from the engineering sector, one private individual from the transport and freight sector, two from the amusement and theme parks sector, along with Auckland Council. Submitters included Construction Health and Safety New Zealand, Recreation Safety Engineering, and the Council of Trade Unions which submitted that, "[A]ny exemptions under this section must still adhere to the general risk management processes and controls".

There were 11 submitters that recorded "yes", with a key theme being that people working in these areas understand their risks and are specifically trained to manage them. Entertainment Production Services Ltd submitted:

> *"There should be exemptions for stunt work, acrobatics, and theatrical performance, the US agency ESTA* [Entertainment Services and Technology Association] *have worked on some standards regarding this (ref: ANSI E1 43 2016)* [Entertainment Technology—Performer Flying Systems]".

Two submitters in support of the proposal, the Certification Board of Inspection Personnel Inc and Recreation Safety Engineering submitted that there may be other exemptions worth considering. The Certification Board of Inspection Personnel Inc said:

> *"There may be other exemptions that may arise where the work or task can be as safely or more safely undertaken without some usual precautions on the basis of a systematic risk assessment by a person well up the competency hierarchy. CBIP submits that this person should be a CPEng (mechanical)".*

There were four submitters against the proposal, including two workers. The two themes emerging were to apply the same rules to all, and that these workers still required protection. One submitter said that, "[S]tunt workers, Acrobats and Theatre performers are still workers who deserve to go home safe".

There were seven "unsure" from a variety of sectors, with only one comment that, "submissions from this industry will be important". There were three other comments. One was against any exemptions, and the two others noted – in some form – that the risks in these sectors would still need to be addressed. Auckland Council submitted:

> *"Exemptions for such work only when specific safety plans are in place that control the risks to a similar level as would be achieved by the regulations".*

Question 2.17

There were 26 submitters who answered this question including The New Zealand Arboricultural Association Inc. Submitters included two from the agriculture sector, the Forestry Industry Safety Council from the forestry sector, five from the construction sector (including two workers), one from the manufacturing sector (Oji Fibre Solutions), three from the engineering sector, a private individual from transport and freight, two from the amusement and theme parks sector, one from the energy sector who wished to remain confidential along with two territorial authorities including Auckland Council.

Submitters included Federated Farmers of New Zealand, Construction Health and Safety New Zealand, Recreation Safety Engineering, Recreation Safety Engineering, and the Council of Trade Unions.

The New Zealand Arboricultural Association Inc. did not record a yes/no/unsure answer, and submitted:

> *"This is provided in the approved CODE OF PRACTICE Safety and Health in Arboriculture. PLEASE NOTE THE TERM 'TREE LOPPING' SHOULD NOT BE USED, if this is meant as a general tree work sense, we recommend using "Arboricultural or forestry work" and should be carried out by those*

> *qualified to do so. The crane cannot always have safety mechanisms to prevent inadvertent falling as the climbing line and equipment are operated by the climber and such precautions are covered by the approved CODE OF PRACTICE Safety and Health in Arboriculture"* [their emphasis].

The Forestry Industry Safety Council also did not record a yes/no/answer, but submitted:

> *"While tree lopping is not defined, we are of the view that forestry tree pruning is not Tree Lopping. Tree Lopping should be defined and constrained to arboriculture type work. We request the inclusion of a definition for Tree Lopping in the proposed regulations and that it specifically excludes forestry tree pruning".*

In addition to the submitters above, there were eight submitters that supported the proposal, with only three leaving a comment. They included both Federated Farmers of New Zealand and Construction Health and Safety New Zealand; both of which acknowledged the unique nature of arboricultural work.

There were also eight submitters against the proposal, with four comments from which no theme could be drawn. One submitter wanted the same rules for all. Oji Fibre Solutions submitted consistently with its overarching view that, "[T]here should be no restrictive regulation. The method adopted in each particular case will be the result of applying the Prescribed Risk Management Process".

Question 2.18

There were 52 submitters who answered this question about incorporating AS/NZS 1891.4:2009 *Industrial fall-arrest systems and devices - Part 4: Selection, use and maintenance* into the regulations. This included two businesses from the agriculture sector, one contractor from the forestry sector, 14 from the construction sector, three from the manufacturing sector, three from the engineering sector, two from the transport and freight sector, three from fisheries (including a worker), three from the amusement and theme parks sector, six from the energy sector along with three territorial authorities.

Submitters included the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety, Universal Homes Ltd, Oji Fibre Solutions, Recreation Safety Engineering, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, the New Zealand Arboricultural Association Inc and the New Zealand Institute of Safety Management.

Thirty of the submitters responded "yes" in support of the proposal. Most of their 20 comments re-iterated their support in some form, with three submitters, including the New Zealand Arboricultural Association Inc also referencing the need for further detail in Approved Codes of Practice (ACoPs). Two references were made to also including appropriate International Standards, and two references made to the cost of Standards.

Using ACoPs was also referenced by one private individual who recorded "no" to the proposal, and by another that recorded "unsure". Looking to include acceptable International Standards was also referenced by AJ Hackett Bungy New Zealand which submitted "no", and the cost of access to standards was referenced by another two submitters that recorded "unsure". These were the key themes across submitters.

There were 12 submitters in total against the proposal. An additional theme arising from their feedback was a question about the appropriateness of the Standard. This was raised by two submitters; one from the energy sector and the Ports of New Zealand which submitted:

> *"This Standard specifies requirements for the materials, design, manufacture and testing of harnesses, lanyards, pole straps and associated equipment including connecting devices and personal energy absorbers for industrial restraint and fall-arrest purposes. The operators of the harnesses do not need to know the specifics of the engineering elements and design".*

Question 2.19

There were 64 submitters who answered this question about whether "Plant that lifts or suspends loads" should be defined in regulations. This included one private individual from the agriculture sector, one contractor from the forestry sector, nine from the construction sector, two from the manufacturing sector, two private individuals from the engineering sector, two from transport, two from the fisheries sector including a worker, one from the amusement and theme parks sector, six from the energy sector along with one territorial authority – Auckland Council.

Submitters included the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, the Ports of New Zealand, Mercury and Contact Energy, Methanex, the New Zealand Arboricultural Association Inc and the New Zealand Institute of Safety Management.

Twenty-four of the submitters responded "yes" in support of the proposal with the key theme being that this would provide clarity (this referenced in some way in eight of the 15 comments). A construction worker commented that, "If we are stipulating correct plant to be used then these should be defined".

There were six submitters against the proposal, with two – including Contact Energy – suggesting that the definition could be included in an ACoP and another two suggesting that it was already clear. This was also the view of one of the two (in total) submitters that selected "unsure". There were also two submitters that did not record yes/no/unsure answers. This included the New Zealand Institute of Safety Management that reflected competing views from their stakeholders:

> *"CONSTRUCTION & AGRICULTURE: No, better to focus on the general application of the terms - perhaps with a minimum height limit (500mm?). Include people as a load and also consider lateral movement. Concern is noted that if we explicitly define in a regulation which plant lifts or suspends it could have implications on further design and innovation. MANUFACTURING: Yes".*

Industrial robots and laser equipment

2.20	Do you think there should be additional controls in regulations for industrial robots and other remotely or automatically energised plant? If yes, what do you think of the approach in the Australian Model Regulations?
2.21	Does existing guidance on robotics sufficiently address the risks and possible control measures from this kind of plant?
2.22	Do you think there should be additional controls in regulations for laser equipment?
2.23	Do you think any classes of lasers should be prohibited from use in certain kinds of work? E.g. Classes 3B and 4 are prohibited from being used in construction work in the Australian Model Regulations.
2.24	Would guidance alone be sufficient to address the risks from laser equipment?
2.25	What are the benefits of an approved code of practice or other guidance for industrial robots and/or laser equipment?

There were three options presented for robots and laser equipment. They were:

- Option 1 – Follow the approach in the Australian Model Regulations
- Option 2 – Follow the approach in the UK
- Option 3 – No additional regulatory requirements for industrial robots or lasers – reliance on approved codes of practice or guidance.

Question 2.20

There were 44 submitters who answered this question about additional controls in regulations for industrial robots and other remotely or automatically energised plant. This included two from the agricultural sector, two from the forestry sector, eight from the construction sector, three from the manufacturing sector, five from the engineering sector, two from transport, three from the fisheries sector including a worker, thee from the energy sector and three territorial authorities.

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, Civil Contractors New Zealand Inc, Construction Health and Safety, Recreation Safety Engineering, Rhode Engineering and Design Ltd, the Ports of New Zealand, Genesis and Contact Energy, Auckland and Christchurch City Councils, the Kiwifruit Industry Health and Safety Council, the New Zealand Institute of Safety Management and the Council of Trade Unions.

Twenty-two submitters responded "yes" in support of the proposal, including the Council of Trade Unions, with 11 leaving a comment. Six of those comments were in support of the Australian Model Regulations (AMR). One of these submitters provided additional detail comment that:

> *"Industrial robots involve a level of programming. The regs for robots need to include reference to programming, that the programming of industrial robots takes into account the health and safety of workers. Programming may be grouped under the definition of designing plant".*

Civil Contractors New Zealand Inc supported the proposal and felt the AMR were a good start but further discussion may be needed. They are also noted that, "…remote controlled equipment also applies to Tunnel Boring Machines and Micro Tunnel Boring Machines. Robotic machines are being used more in the civil construction industry".

There were nine submitters against the proposal, with the key theme of their comments being that the matter was already dealt with (four submitters) or that an ACoP or guidance would be a better approach (two submitters). There were five submitters that recorded "unsure" and left no comments, and nine submitters that did not record yes/no/unsure answers but otherwise left a comment. The key theme that could be drawn from these comments is that this was an area that was constantly evolving and may be best dealt with outside of regulations. For example, the Meat Industry Association submitted:

> *"The regulations would need to be written in such a way as to cover off a wide variety of current and future technology. There should be caution to not place high levels of control for today's technology, in an attempt to cover off future more high-tech options".*

The Forestry Industry Council Safety Council submitted:

> *"The consideration of additional controls for industrial robots, MBIE needs to proceed with caution...We have found that there are already good resources and guidance available for designing and commissioning teleoperated equipment in forestry. Specifically, there is a NZ Standard for remote controlled mining equipment that we have found meets our needs. The Standard uses well established procedures for hazard management that are detailed in other standards".*

Question 2.21

There were 32 submitters who answered this question about existing guidance on robotic plan. This included three from the agriculture sector, one contractor from the forestry sector, seven from the construction sector, a private individual from the manufacturing sector, two from the engineering sector, two from transport and freight, two from fisheries, one from the amusement and theme parks sector (Regional Facilities Auckland), two from the energy sector along with two territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, Federated Famers of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Rhodes

Engineering and Design Ltd, Ports of New Zealand, Genesis Energy, Auckland and Christchurch City Councils and the New Zealand Institute of Safety Management.

There were seven submitters who responded "yes" to this question, none of which left a substantive comment as to why they held this view. There were also seven submitters that respond "no", with only three comments recorded, both noting in some way that this is a constantly evolving area. Construction Health and Safety New Zealand submitted that, "[E]xisting guidance does not really meet the need of emerging autonomous technologies, which are essential for removing risks to people".

There were 13 submitters that recorded "unsure" with only one leaving a comment that they, "have not read existing guidance". There were also five submitters that otherwise left comments, with three suggesting that ACoPs or guidance may be a better option. For example, Federated Farmers of New Zealand submitted:

> *"Given the complexity of robots and lasers, and the varying nature of potential risks, we support the continued approach of providing guidance, particularly given the broad responsibilities of the H&S Act apply".*

The Ports of New Zealand referenced work being done internationally:

> *"Robotic plant is becoming more 'intelligent' and hence more complex, and the more complex a device becomes, the more difficult it might be to achieve a safe design. Crucially researchers developing these robots do not always have safety as a priority, so safety may not have been adequately considered by the time the robot is available commercially. There has already been some work carried out on robot/human safety; the Japanese Government has commissioned a long-term research programme to establish safety standards for workplace robots, the first conference of human-robot interaction was held in the USA in March 2006 and the European Robotics Research Network (EURON) also met in March 2006 to discuss measures to help prevent robots from unnecessarily harming people".*

Question 2.22

There were 34 submitters who answered this question. This included two from the agriculture sector, 10 from the construction sector, a private individual from the manufacturing sector, two from the engineering sector, two from the transport and freight sector, two from fisheries, one from amusement and theme parks (Recreation Safety Engineering), two from the energy sector along with three territorial authorities.

Submitters included Federated Farmers of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety, Universal Homes Ltd, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Auckland and Christchurch City Councils, the New Zealand Institute of Safety Management and the Council of Trade Unions.

There were 17 submitters who agreed that there should be additional controls in the regulations for lasers. Three of these submitters commented on them being common; Construction Health and Safety New Zealand, Universal Homes Ltd and Regional Facilities Auckland. Two of these submitters made reference to the Australian Model Regulations, but the New Zealand Institute of Safety Management said that, "…further consultation is required in this area, as there is currently not enough information on this to make a firm decision for these regulations".

There were six submitters against the proposal, with only three comments. Two businesses that wished to remain confidential suggested that currently controls were adequate, another (that also wished to remain confidential said controls should be captured in guidance. This was also the view of the Federated Farmers of New Zealand (which did not record a yes/no/unsure) answer:

> *"Given the complexity of robots and lasers, and the varying nature of potential risks, we support the continued approach of providing guidance, particularly given the broad responsibilities of the H&S Act apply".*

There were six submitters that recorded "unsure" but none of these left a comment. Five other submitters left various comments. Civil Contractors New Zealand Inc submitted that only some lasers needed further controls while the Council of Trade Unions indicated support for the AMR. The Ports of New Zealand again pointed to useful work being done overseas:

> *"The UK Executive's Control of Artificial Optical Radiation at Work Regulations (AOR) 2010 cover all forms of artificial light, including lasers discusses the hazards and controls for Class 3B Class 4 could be adopted to the new regulations".*

Question 2.23

There were 32 submitters who answered this question about prohibiting certain lasers from use. This included two from the agriculture sector, eight from the construction sector (including three who identified as workers), one private individual from the manufacturing sector, two from the engineering sector, two from the transport and freight sector, two from fisheries, one amusement and theme parks Regional Facilities Auckland), three from the energy sector, along with two territorial authorities.

Submitters included Federated Farmers of New Zealand, Civil Contractors New Zealand Inc and Construction Health and Safety New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, the Ports of New Zealand, Christchurch City Council, the New Zealand Institute of Safety Management and the Council of Trade Unions.

There were 10 submitters that selected "yes", with only five leaving a comment. The Council of Trade Unions, the New Zealand Arboricultural Association Inc and Methanex all supported the approach in the Australian Model Regulations. The Council of Trade Unions and Civil Contractors New Zealand Inc specifically referenced class 3B and 4 lasers, and another submitter referenced "agricultural bird scaring lasers class 4".

There were 13 submitters that recorded "unsure" with no comments left as to their rationale. Five submitters recorded "no" with one from the fisheries sector saying that existing control measures were sufficient. The only other submitter to leave a comment was Construction Health and Safety New Zealand which submitted:

> *"Class 3B/4 lasers are essential for advanced imaging and scanning applications in construction (3B lasers are commonly used in asset scanning technologies, which in addition to being more efficient that traditional methods remove the need to put people in high risk environments). This will provide a barrier to innovation. Class 3B and 4 Lasers can be safely used with the appropriate controls and management practices. The text on page 44 of the discussion paper regarding option 2 is not quite correct. The UK has had the Artificial Optical Radiation Regulations for some time now which specifically deals with lasers (in addition to other sources such as harmful IR and UV). The UK approach to AOR Regs may well be a good source of information on how we might regulate the use of lasers".*

Of interest, the Ports of New Zealand provided detail on the UK's approach, submitting that:

> *"The UK Executive's Model Work Health and Safety Regulations as at 15 January 2019 223 Lasers must ensure that Class 3B and Class 4 lasers (within the meaning of AS 2397:1993—Safe use of lasers in the building and construction industry) are not used in construction work".*

Along with the Ports of New Zealand, there were three other submitters (four in total) that did not record a yes/no/unsure answer. The New Zealand Institute of Safety Management submitted that further consultation was needed.

Question 2.24

There were 34 submitters who answered this question about guidance addressing the risk from lasers. This included two from the agriculture sector, 11 from the construction sector, one private individual from the manufacturing sector, Rhodes Engineering and Design from the engineering sector, one private individual from the transport and freight sector, two from fisheries, one amusement and theme parks (Regional Facilities Auckland), three from the energy sector along with three territorial authorities.

Submitters included Federated Farmers of New Zealand, Civil Contractors New Zealand Inc, Universal Homes Inc, Contact Energy, Methanex, Auckland and Christchurch City Councils, Entertainment Production Services Ltd and the Council of Trade Unions.

Eight submitters were in support of guidance, including Entertainment Production Services Ltd which submitted that, "…an approved code of practice would be useful for the use of lasers in the entertainment industry as it will allow a common reference point for all stakeholders (i.e. venue, production, and supplier)" and Federated Farmers of New Zealand. The New Zealand Institute of Safety Management submitted that there was also a need for import standards. This was also referenced by Construction Health and Safety New Zealand and Regional Facilities Auckland which were two of the 15 submitters against the proposal. Two others against the proposal expressed concern that guidance would not be followed.

There were 11 submitters that were "unsure" with only one comment recorded from a submitter that wished to remain confidential, that "[G]uidance or ACoP [Approved Code of Practice]. Needs to be balanced with the amount of use & risk".

Question 2.25

There were 28 submitters who answered this question about the potential value of ACoPs or guidance for managing industrial robots and/or laser equipment. This included two from the agriculture sector, seven from the construction sector (including two workers), two from the manufacturing sector, three from the engineering sector (all being private individuals), one private individual from transport and freight, one from fisheries (that wished to remain confidential), one amusement and theme parks (Regional Facilities Auckland), three from the energy sector along with two territorial authorities.

Submitters included Federated Farmers of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Genesis Energy, Methanex, Auckland and Christchurch City Council, Meat Industry Association, the New Zealand Arboricultural Association of New Zealand and the New Zealand Institute of Safety Management.

The key theme from the comments was that ACoPs and guidance would be easier to update as technologies evolved, better enabling the use of new technologies. The Meat Industry Association's submission is representative of the 12 submitters that made this comment:

> *"We support greater guidance on types of robots/lasers, but this needs to be guidance rather than prescriptive regulation to take into account ongoing changes to technology".*

Other comments made included that these materials could offer clarity (three submitters) and provide some consistency (three submitters).

Require PCBUs to follow the Prescribed Risk Management Process

2.26	Should PCBUs be required to apply the Prescribed Risk Management Process when managing risks from plant?
2.27	Would education and guidance on the risk management process alone improve PCBUs' ability to identify and manage risks from plant?

2.28	Are there any further requirements needed, in addition to the Prescribed Risk Management Process, to specifically manage risks to health from the use of plant?

There were two options present with regard to the Prescribe Risk Management Process. They were:

- Option 1 – Apply the Prescribed Risk Management Process to health and safety risks from plant
- Option 2 (in addition to, or instead of, option 1) – Enhance education and guidance.

Question 2.26

There were 71 submitters who answered this question about Persons Conducting a Business or Undertaking (PCBU) applying the Prescribed Risk Management Process (PRMP) when managing risks from plant. This included four from the agriculture sector, four from the forestry sector, 15 from the construction sector, three from the manufacturing sector, six from the engineering sector (four being private individuals) four from transport, three fisheries, four amusement and theme parks, seven from the energy sector along with four territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Universal Homes Ltd, Oji Fibre Solutions, Engineering New Zealand, Recreation Safety Engineering, the Ports of New Zealand, the Road Transport Forum New Zealand, AJ Hackett Bungy New Zealand, Genesis, Mercury and Contact Energy, Auckland, Christchurch and Dunedin City Councils along with one that wished to remain confidential, and the Council of Trade Unions.

Fifty-five of the submitters responded "yes" in support of the proposal, with 26 leaving comments, two of which expressed strong support (the Meat Industry Association and Dunedin City Council) and one construction contractor submitting, "we do this now anyway". Four submitters also referenced the need for guidance and education including Construction Health and Safety New Zealand and Universal Homes Ltd.

There were seven submitters that responded "no" with no clear theme emerging. Contact Energy and one manufacturing submitter that wished to remain confidential, along with one private individual considered the PRMP to be restrictive. Contact submitted that it, "…does not support the concept of a prescribed process as this can inhibit development or use of more effective approaches".

There was one submitter who was "unsure", thinking the proposal represented the status quo. There were six submitters that otherwise left comments, with one supporting increased education and guidance (the Kiwifruit Industry Health and Safety Forum), two in support of the PRMP and education and guidance including the Federated Farmers of New Zealand and a forestry contractor.

AJ Hackett Bungy New Zealand submitted that, "[W]e believe that managing risks is covered under the HSW Act already, re-defining it suggests two sticks of enforcement action instead of one and could lead to contradictions over time. There is also the potential to stifle innovation".

Question 2.27

There were 68 submitters who answered this question about education and guidance. This included four from the agriculture sector, three from the forestry sector, 15 from the construction sector, three from the manufacturing sector, five from the engineering sector, four from the transport and freight sector, three from fisheries (including a worker), four amusement and theme parks, seven from the energy sector, along with four territorial authorities.

Submitters included Federated Farmers of New Zealand, Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Universal Homes Ltd, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design, The Ports of New Zealand, the Road Transport Forum New Zealand, AJ

Hackett Bungy New Zealand, Genesis, Mercury and Contact Energy, Methanex, Auckland, Christchurch and Dunedin City Councils along with one that wished to remain confidential, and the Council of Trade Unions.

Twenty-four of the submitters responded "yes" and 13 left a comment in response to this question, two of these suggesting the education and guidance would need to be supported by regulations and one submitter said yes, "but not guarantee it"! If a theme could be drawn from the comments, it is that education and guidance would help provide clarity. For example, the Forestry Industry Safety Council submitted:

> *"While the Act sets out the duty, there is confusion about the 'doing' aspects of applying a risk management process to worksite risks. Education and guidance could also look at alternative risk assessment and monitoring methods that are used".*

Twenty-six submitters responded "no", including the Council of Trade Unions, the Meat Industry Association, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand and Construction Health and Safety. The theme from the comments was that both regulations, and further education and guidance were necessary. Three submitted (all who wished to remain confidential) said that if education and guidance was sufficient, this regulatory review would not be necessary. Another three submitters, including Auckland Council, commented that education and guidance could be ignored, one worker commented that it,"…relies on the good intentions of individuals".

There were five submitters who recorded unsure, with no key theme in the response. One suggested that the approach needed to vary depending on risk. This view was expressed in some form by two submitters that did not record yes/no/unsure but left a comment. The Motor Industry Association submitted that, "[A] flexible or adaptable approach should apply based on the size of the organisation and the nature of their business". The New Zealand Institute of Safety Management submitted that, "[T]his requires a more strategic approach that will include a range of tools – while education and guidance will form part of this, in turn so will enforcement".

Question 2.28

There were 57 submitters who answered this question. This included four from the agriculture sector, three from the forestry sector, 11 from the construction sector, three from the manufacturing sector, six from the engineering sector, three from the transport and freight sector, two from fisheries, four from amusement and theme parks, six from the energy sector along with two territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, Engineering New Zealand, the Road Transport Forum New Zealand, AJ Hackett Bungy New Zealand, Regional Facilities Auckland, Auckland Council, and the New Zealand Institute of Safety Management.

Twenty-two submitters said "yes", that there were further requirements needed in addition to the Prescribed Risk Management Process to specifically manage the risks from plant. A key theme was the need for further education and guidance, with five submitters making some sort of reference to this. Another theme was that guidance should be specific, with one construction sector submitter (that wished to remain anonymous) submitting:

> *"It would be great to have specific guarding and safety basic standards for commonly used plant (eg adopt UK information). This would make it easier for hire companies and manufacturers to comply and give people good guidance to check against".*

Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand submitted that, "plant should comply with a relevant NZ Standard or international equivalent. All plant should be supplied with manufacturers' information regarding the safe use, storage, maintenance and transport of the plant".

Two submitters also made mention of health risks. Construction Health and Safety noted the, "…health risks arising from the use of plant and equipment (dust, fume, smoke, noise, vibration)". The New Zealand Institute of Safety Management submitted:

> *"Much larger focus is required on health risks. There needs to be consideration of emissions standards from workplace vehicles and plant. The risk from diesel particulates is also grossly undermanaged. Worker participation needs to be included. We are very much in our infancy when it comes to occupational health in NZ and much work is required in this area".*

Two submitters were keen on the development of an Approved Code of Practice or guidance for farm or agricultural work including the Agricultural Leaders' Health and Safety Action Group. The Road Transport Forum New Zealand submitted that "[M]ore focus must be applied to address predatory and exploitive behaviour of principals to ensure they are not driving unsafe and unsustainable behaviour on personnel contracted to them".

Sixteen submitters said that "no" further requirements were needed; almost all were businesses but this group included the Forestry Industry Safety Council and Recreation Safety Engineering. These submitters made few comments, but one that wished to remain confidential submitted:

> *"The regulations should be flexible enough to allow PCBU's to identify and manage risks based on the type of machinery, and the environment the plant operates in. Perhaps further requirements could remain as best practice guidelines for individual types or environment".*

Assessing the impact

2.29	Based on the proposals you have commented on in this section on protections for people working with plant, are there any significant costs and/or benefits that will affect you or your organisation?

There were 59 submitters who answered this question or had responses to this section of the Discussion Paper recorded here. Submitters included:

- four from the agriculture sector, including the Agricultural Leaders' Health and Safety Action Group. All of which said that costs would be incurred, with Federated Farmers of New Zealand submitting that, "[W]e cannot quantify the potential costs or benefits for farmers, although we underline the overall need to ensure costs are minimised and greater controls are warranted, effective and efficient"
- four from the forestry sector, including the Forestry Industry Safety Council. All the submitters believed cost would be incurred with the cost of guarding being mentioned by two contractors and one submitter suggesting indicative costs of equipment upgrades of in the order of one million dollars
- twelve from the construction sector, with five suggesting that the changes would largely be cost neutral with one saying "…most controls should already be in place or available". Only one submitter suggested that there would be significant costs in proving the competency of users
- three from the manufacturing sector with two noting concern about the cost. One noted they were already incurring costs and improving compliance and Oji Fibre Solutions suggesting they would incur costs with little benefit
- four from the engineering sector, three being private individuals with Recreation Safety Engineering suggesting the proposals were, "…essentially a formalisation of current practice within the amusement ride industry so should not result in appreciable increases in costs"
- four from the fishing sector, with two seeking further consultation and work considering the current maritime legislation, regulations and rules, and one expressing concern about the availability of competent people to support the implementation of the proposals

- three from the amusement and theme parks sector with two, including Regional Facilities Auckland, suggesting no major cost would be incurred while AJ Hackett Bungy New Zealand expected some costs with little benefits considering its current good practice
- four from the energy sector, with Mercury Energy "already taking many of the proposed solutions", another suggesting the potential for significant benefits to be accrued and the other two noting compliance could would be incurred
- three territorial authorities, none of which were concerned about the potential cost, two noting some would be incurred but benefits would arise.

There were eight other submitters – from a range of sectors but including the Meat Industry Association – that expressed concern about the costs of the proposals, with three specifically mentioning the costs of involving competent people and two mentioning the potential costs for the agriculture sector. The New Zealand Institute of Safety Management submitted on this as did one business that wished to remain anonymous that said:

> *"Yes, there will be significant costs incurred. Agri potentially face the largest cost in the short term. Unlike other industries, agriculture can't pass these costs on to consumer/client and are currently facing mounting compliance costs from other areas (such as environmental). While there is no doubt that there are changes required, consideration on timeline of implementation and initiatives like the recent ACC grants should be supported and expanded, along with other avenues of funding opportunities explored to provide necessary support to help cover the costs".*

The Council of Trade Unions submitted:

> *"Increasing clarity in the regulations through implementing these proposals has clear benefits for workers when working with plant. The most easily identifiable benefit is better protections in the workplace, a second but equally important benefit is the improvement the regulations will have on worker engagement. Where workers are more easily able to find the standards against which their jobs operate, they are in a better position to identify hazards, engage with their employers on these hazards and to address them. We have noticed gaps in the workforce where risk identification and controls are not understood as well as they could throughout the workplace, this is a clear gap in the health and safety system – these regulations should be able to assist in filling these gaps. Another element of engagement is better equipping the workers to help their workmates with health and safety in the workplace. Improved regulations with plant and mobile plant help Union representatives, health and safety reps, and staff create environments where new staff are able to understand risks of the workplace – and appreciate them. This creates a culture of buy-in for health and safety with obvious long term benefits".*

Section 3: Protections for people working with mobile plant

This section of the summary contains the feedback received on proposals for managing risk from mobile plant, including:

- overturning or colliding with things or other mobile plant
- operators and passengers being hit by falling objects, or thrown from the mobile plant.

The proposals for the management of risks from plant in this section included:

Summary of submissions received

Require PCBUs to apply the Prescribed Risk Management Process to specific risks from mobile plant

3.1	We are proposing to apply the Prescribed Risk Management Process to plant (see Section 2 of the discussion paper). When applying the Prescribed Risk Management Process, should it specify the key risks of mobile plant? *(The keys risks from mobile plant are overturning, falling objects, being thrown from the plant, mechanical failure of pressurised elements, and collisions).*
3.2	Do you think the Prescribed Risk Management Process should not apply to any of these risks?

Question 3.1

There were 72 submitters who answered this question. This included three from the agriculture sector, four from the forestry sector, 16 from the construction sector, four from the engineering sector and three from the manufacturing sector, five from the transport and freight sector, two from the fisheries sector, three from the amusement and theme parks sector, seven from the energy sector and three territorial authorities.

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Universal Homes Ltd, Engineering New Zealand, Recreation Safety Engineering, Oji Fibre Solutions, the Ports of New Zealand, the Road Transport Forum New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, along with the Council of Trade Unions and E tū Union.

Fifty-seven of the submitters supported the proposal that when applying the Prescribed Risk Management Process, the key risks of mobile plant should be specified. Twenty-seven submitters left a comment, most of which re-enforced their support. A number provided some specific feedback of matters to be considered, such as Engineering New Zealand which noted that the proposal should be designed to cover remotely operated plant and Entertainment Production Service Ltd which commented on the potential impact on the use of plant on stages.

Some of the themes that could be identified by those in support and otherwise leaving a comment (10 submitters) included:

- need to be clear how the proposal would apply to attachments to mobile plant such as tractors, which was mentioned by two submitters
- following the Australian Model Regulations, which was suggested by three submitters including Auckland Council and E tū Union.

Four submitters specifically mentioned the risks associated with forklifts, with Construction Health and Safety New Zealand submitting:

> *"This can only be a good thing for the construction industry. We know mobile plant/vehicles are our greatest cause of deaths and significant change is needed to address this problem. Data is indicating that specific focus on Plant Operator Competency is essential, particularly in expressing the specific skills, training and experience required by operators of mobile plant. Specific consideration of segregation between people and mobile plant is essential. Excluding people from working in close proximity to plant must be the start point, with specific consideration of controls being required before we allow essential work by ground based people close to mobile plant, which in most cases should be restricted to short durations.*

Federated Farmers of New Zealand were in support of the proposal, but along with two others, expressed some concern about it resulting in the failure of Persons Conducting a Business or Undertaking (PCBUs) considering other risks:

> *"The Prescribed Risk Management Process is a reasonable and logical approach to managing risks associated with mobile plant, provided it is supported by sufficient guidance and recognition of the practical requirements, limitations and challenges relating to a farm environment. We support the key risks from mobile plant being specified, although it is important this is done in a way that does not indirectly exclude relevant risks".*

Only two submitters were against the proposal; one from the manufacturing sector and a forestry contractor. Both submitted that the proposal was not necessary. Three submitters where unsure, with another forestry contractor concerned about the possible impact of wearing seatbelts:

> *"These could restrict our type of work. There is little to no risk of roll over on our site. Making operators wear seat belts will be a massively restrict our workers work rate. Operators are on and off forklifts about 30 -40 times a day. Mostly short duration work".*

Question 3.2

There were 64 submitters who answered this question. This included three from the agriculture sector, three from the forestry sector, 16 from the construction sector, three from the engineering sector, three from the manufacturing sector, four from the transport and freight sector, two from the fisheries sector, three from the amusement and theme park sector, seven from the energy sector, along with three territorial authorities.,

Submitters included Federated Famers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Construction Health and Safety New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, the Ports of New Zealand, Recreation Safety New Zealand, Genesis, Mercury and Contact Energy, Methanex, the New Zealand Institute of Safety Management and the Council of Trade Unions.

There were seven submitters that responded "yes", that some of the risks described in the Discussion Paper should be excluded from the Prescribed Risk Management Process (PRMP). Four of these left a comment with three specific comments:

- a submitter requesting confidentiality recommended that the mechanical value of pressurised elements should be managed through supply and design
- an inspection organisation recommended that heritage boilers and associated equipment should be managed through good practice guidance.

The Forestry Industry Safety Council submitted that, "[U]nless a degree of flexibility is allowed, oppose the application of the Prescribed Risk Management Process to the management of collision risks (specifically in forestry)".

Fifty-one submitted that the PRMP should apply to all the risks listed in the Discussion Paper, with few leaving comments. Methanex submitted that, "[I]t should cover all these key risks. We would suggest refining "collisions" into mobile plant (a) pedestrian and (b) object/structure".

There were four submitters that were "unsure", with no themes emerging in the two comments left. A forestry contractor submitted:

> *"These risks are not present on all work sites. We think the Prescribed Risk Management Process would need flexibility as not all these risks are present on all sites. If it can't be flexible then it's the wrong process to use".*

Of the two other submitters leaving a comment, Contact Energy submitted that, "Roll Over protection and Seatbelts should be mandatory". The Motor Industry Association submitted that, "[F]or many situations, especially quads and some tractors, it would be less injury threatening to jump clear of the plant than to remain on board".

Require PCBUs to ensure a suitable combination of "operator protective devices" on all mobile plant

3.3	Should there be specific requirements for operator protective devices?
3.4	Is it appropriate for PCBUs to determine what is a suitable combination of operator protective devices?
3.5	Are there any types of mobile plant that require specific kinds of devices?
3.6	What other kinds of operator protective devices are appropriate for the mobile plant you use or manage at work?

Question 3.3

There 67 submitters who answered this question. This included four from the agriculture sector, three from the forestry sector, 14 from the construction sector, four from the engineering sector, four from the manufacturing sector, four from transport and freight, two from the fisheries sector, three from the amusements and theme parks sector, seven from the energy sector and three territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Forum, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Engineering New Zealand, Recreation Safety Engineering, Oji Fibre Solutions, the Ports of New Zealand, KiwiRail, Genesis, Contact and Mercury Energy, Auckland and Christchurch City Councils, the New Zealand Arboricultural Association Inc, the New Zealand Institute of Safety Management, the Certification Board for Inspection Personnel, along with the Council of Trade Unions and E tū Union.

Forty-six of the submitters supported the proposal for specific requirements for operator protective devices on all mobile plant. The Council of Trade Unions submitted:

> *"Specific requirements provide both the operator and the PCBU with clarity as to what is the minimum required safety controls. Particularly in regards to the operator it provides certainty as what they can expect when they are working with mobile plant".*

Twenty-five submitters left a comment in support, with three including Scaffolding, Access and Rigging New Zealand, specifically referencing the Australian Model Regulations and other submitters commenting that the approach would need to be risk-based or plant or industry specific. For example, the Kiwifruit Health and Safety Forum commented that, "…the requirements should be in the Act, with the ability to deviate based on a risk-based assessment. Quad bikes with crush protection cannot safely manoeuvre under kiwifruit vines".

There were seven submitters against the proposal, with one pointing out that not all plant is operated from within or on the machine, noting that thought would need to be given to remotely controlled plant. There were two submitters that were "unsure" with one suggesting that key terms would need to be narrowed.

The submitters that did not record yes/no/unsure answers but otherwise left a comment also submitted on the need to take a risk-based approach and to be clear about what was an "operator protective device". For example, KiwiRail submitted a view that was similar to others, including the Meat Industry Association:

> *"We encourage MBIE* [the Ministry of Business, Innovation and Employment] *to ensure any regulation relating to operator protective devices is not overly prescriptive, and that PCBUs* [Persons Conducting a Business or Undertaking] *are able to determine what is necessary in the context of their operations and working environments, taking a risk-based approach…We agree that it is appropriate for PCBUs to provide, maintain and use a suitable combination of operator protective devices. We encourage MBIE to ensure any regulation of this nature is not overly prescriptive, but rather ensures that PCBUs are able to determine what is necessary, taking a risk-based approach. Such an approach is already mandated by the Health and Safety at Work Act 2015".*

Engineering New Zealand's submission is also representative – a similar view was expressed by the Motor Industry Association:

> *"MBIE's discussion paper outlines the possibility of requiring a suitable combination of 'operator protective devices' on all mobile plant. We consider that this requires further clarification and has the potential to have unintended consequences on plant that is imported with high safety standards".*

E tū Union was of the view that, "Rollover protection should be mandatory all quad bikes". This was also the view of the Agricultural Leaders' Health and Safety Action Group.

Question 3.4

There were 64 submitters who answered this question about the Person Conducting a Business or Undertaking (PCBU) determining what were suitable operator protective devices. This included four from the agricultural sector, three from the forestry sector, 13 from the construction sector, three from the engineering sector, three from the manufacturing sector, four from the transport and freight sector, two from the fisheries sector, three from the amusement and theme parks sector, six from the energy sector and three territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Group, Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Oji Fibre Solutions, the Ports of New Zealand, Regional Facilities Auckland, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, and the Council of Trade Unions.

Thirty-six submitters were for the proposal, with 23 leaving a comment. A clear theme in the comments was that the obligation would need to be supported by clear guidance or Approved Codes of Practice (ACoPs). This was referenced by 11 submitters including the Forestry Industry Safety Council and Construction Health and Safety New Zealand. Three submitters made some sort of reference to the need for obligations on designers, manufacturers and importers or suppliers. For example, Federated Farmers of New Zealand submitted:

> *"As a broad response and on balance, yes. If supported by appropriate advice around design requirements to be tailored to the specific uses and risks associated with the mobile plant and mobile plant use. Where justified there is a reasonable argument for minimum requirements where these are demonstrably effective in reducing risk across the range of uses for a specific type of mobile plant".*

There were 19 submitters against the proposal, with nine recording comments. The key theme of the comments was that the requirements should be clearly prescribed (seven submitters). This was the view of the Agricultural Leaders' Health and Safety Action Group, those feeding into the New Zealand Institute of Safety Management's submission and the New Zealand Arboricultural Association Inc.

There were three submitters that were "unsure" about the proposal. Two of those questioned whether a PCBU would have the ability to make the determination. Of the six submitters that did not submit yes/no/unsure, there were no key themes. The Council of Trade Unions indicated it would support the proposal, "[S]o long as there has been adequate risk identification undertaken and genuine worker engagement (including with worker representatives)".

Question 3.5

There were 52 submitters who answered this question about if any types of mobile plant required specific kinds of protective devices. This included three from the agricultural sector, one from the forestry sector (the Forestry Industry Safety Council), 11 from the construction sector, two from the engineering sector, three from the manufacturing sector, three from transport and freight, two from the fisheries sector, two from the amusements and theme parks sector, six from the energy sector, and three territorial authorities.

Submitters included Federated Farmers of New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Recreation Safety New Zealand, Rhodes Engineering and Design Ltd, Oji Fibre Solutions, the Ports of New Zealand, Genesis, Mercury and Contact Energy, Auckland and Christchurch City Councils, the Certification Board for Inspection Personnel and the Council of Trade Unions.

There were 24 submitters that responded yes to this question with 12 leaving a comment identifying specific types of mobile plant, 15 submitters also recorded comments without yes/no/unsure answers, also identifying specific plant. A key theme was roll over protection, with it being referenced by five submitters. One private individual submitted:

> *Rollover protection devices: There is increasing evidence from USA, Israel and Australia that some form of operator protection device reduces fatalities from crush injuries. This is beyond my expertise, but I would urge you to take notice of the evidence. WorkSafe now recommend crush protection devices, so mandating the use of an appropriate device may also save lives and has been recommended by many Coroners. WOFs for quad bikes: It goes without saying that these are potentially dangerous machines where issues such as uneven tyre pressures can result in an accident waiting to happen. WOFs (or equivalent) or training around quad bike maintenance would be beneficial. Perhaps this could be part of the licensing scheme?*

The Motor Industry Association submitted that:

> *"It should be mandated that all quad bike users are required to wear a helmet. This requirement should apply to all on-road and off-road users. Devices should not be required where it is clear that that device can itself add injury to the user".*

Other plant that received mention was agricultural and forestry plant, with the Forestry Industry Safety Council providing a detailed submission. Elevated Work Platforms were also mentioned by multiple submitters.

There were only three submitters against the proposal – one being a construction worker – and none left a comment. Only two comments were left by the 10 submitters that recorded unsure, with one mentioning that both the type of plant and the way it was used needed to be considered.

Question 3.6

There were 32 submitters who answered this question about operator protective devices. This included:

- three from the agricultural sector, with one submitter commenting "many" and another drawing attention to Roll Over Protective devices (ROPs) and remote cut-offs. The Agricultural Leaders' Health and Safety Action Group submitted that each individual device needed to be considered, but that, "…that there needs to be compulsory helmets for quad bikes, motorbikes and side by sides and seatbelts fitted and used in tractors, utes and side by sides on farm"
- three from the forestry sector, with one submitting "they are all safe enough" and a range of other devices being listed by a forestry contractor and the Forestry Industry Safety Council that included: flashing lights; horn; radio communication; beeper; roll/ fall protection (ROPS and FOPS cabs) where needed; traffic plan; speed restrictions; training ; servicing; multi-point harness fitted in plant operating on slopes; clinometer, machine sensors or slope maps/GPS; windscreen protection from projectiles if operating a Processor
- five from the construction sector, with Scaffolding, Access and Rigging New Zealand referencing the approach in the Australian Model Regulations, and other submitters referencing ROPs; falling objects protective structures, restraints and seatbelts, interlocking protections, boom lift and Elevated Work Platform (EWP) guarding
- one from the engineering sector, a private business that listed ROPs, seat belts, closed cabs, reversing alarms and ancillary lighting
- three from the manufacturing sector, with one business recording that they worked with the manufacturer's specification and Oji Fibre Solutions submitting that, "[T]he need for operator protective devices should be determined by the Prescribed Risk Management Process"
- two from the transport and freight sector, with one business stating the question was not relevant and the Ports of New Zealand submitting in favour of 3 or 4 point safety belts, commenting that, "…lap belts should be phased out of industry"
- one worker from the fisheries sector, who recorded seatbelts, horns and flashlights
- three submitters from the energy sector listed a range of devices including: seatbelts for mobile equipment on site (forklifts, vehicles, side-by-side, tractors); rollover protection; falling object protection (excavator, crane cabs); restraint (elevated work platforms/JLG's); close proximity alerts and 360 degree cameras
- two territorial authorities – including Auckland Council - which between them submitted: emergency stop buttons/levers; safety rated glass in cabs/vehicles; visual/audible alarms; proximity sensors; blind-spot monitoring /camera. Auckland Council also submitted that, "[P]rovision should be made in the regulations for smart technology as is emerging for cars".

Other submitters included the Meat Industry Association that recorded anti-tilt prevent and lock out devices, and a submitter requesting confidentiality which considered forklifts should have proximity warning systems with escalating alarms. The New Zealand Institute of Safety Management submitted that

cabs should provide noise and dust protection. The Motor Industry Association's submission was much like that of Oji Fibre Solutions:

> *"While there may be a wide range of OPDs that can be used across an equally wide range of mobile plant, the importance is that it is up to the PCBU to determine what is most appropriate for the plant and its use".*

Ensure risks of collision are managed effectively

3.7	Should there be a requirement to ensure plant does not collide or to ensure warning devices, because of the extra risk of harm?
3.8	Should there be a requirement to ensure an adequate field of vision?
3.9	Are other requirements needed to manage risks from collision (For example, requiring that mobile plant is switched off when operators are not in the cab to avoid it moving unexpectedly).
3.10	Should information on traffic management be included in approved codes of practice or other guidance?

There were three options presented for ensuring the risks of collision are managed effectively. They were:

- Option 1 – Follow the Australian Model Regulations
- Option 2 – (in addition to option 1) Add some of the requirements from the United Kingdom
- Option 3 – (in addition to options 1 and/or 2) Include traffic management around mobile plant in guidance or approved codes of practice for specific plant or industries

Question 3.7

There were 60 submitters who answered this question about collisions. This included four from the agriculture sector, three from the forestry sector, 13 from the construction sector (including two workers), two from the engineering sector, three from the manufacturing sector, four from the transport and freight sector, two from the fisheries sector, one from amusements and theme parks (Regional Facilitates Auckland), five from the energy sector and three territorial authorities.

Submitters included the Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Recreation Safety Engineering, Oji Fibre Solutions, Ports of New Zealand, KiwiRail, Mercury and Contact Energy, Auckland and Christchurch City Councils, the Meat and Motor Industry Associations, the New Zealand Institute of Safety Management, along with the Council of Trade Unions and E tū Union.

There were 30 submitters that responded "yes" to this question and 13 that left a comment. There were:

- two submitters in support of option 1, and the use of the Australian Model Regulations, this included Auckland Council and a business operating in the waste management sector
- two submitters in support of option 3, including the Kiwifruit Industry Health and Safety Forum and Mercury Energy.

The general theme from the submitters in support of the proposal was that warning devices were becoming more and more available. The Construction Health and Safety New Zealand submitted:

> *"There are so many devices available at relatively low cost. Warning devices protecting people close to mobile plant are essential. There are so many proximity warning and detection devices on the market, it wouldn't be unreasonable to consider making these mandatory if physical pedestrian*

exclusion zones cannot be maintained. The automotive industry seems to have adopted reverse cameras, 360 cameras, proximity (blind spot alarms), lane departure warning etc. Why can't we influence manufacturers of mobile plant and construction vehicles to do the same; perhaps an ANCAP rating programme?"

There were five submitters against the proposal, including the Forestry Industry Safety Council and two other forestry contractors, and the Meat Industry Association. One of the forestry contractors submitted:

"No. Because of the training on site, staff understanding of traffic plans, speed restrictions the risk of plant colliding is very low to the point of been eliminated. If the likelihood is increased as well as the harm caused then the PCBU would need to address this".

The Meat Industry Association was concerned about over alarming and false alarming in small spaces, and workers becoming de-sensitised to alarms. This was similar to the feedback provide by one of the two submitters that recorded "unsure". The other – an engineering business – commented:

"It is difficult to ensure plant does not collide when you can have multiple machines operating within close confines. We can reduce the risk with procedural or environmental factors such as layout. Reverse alarms and adequate lighting also aids in reducing the risk".

There were otherwise 17 submitters that did not select a yes/no/unsure answer but recorded a comment. Two of those, including Federated Farmers of New Zealand were in favour of option 1 and a graduated approach. Three submitters, including Scaffolding, Access and Rigging New Zealand and Oji Fibre Solutions referenced following the Prescribed Risk Management Process. The Ports of Zealand submitted in favour of an industry driven approach and the Council of Trade Unions submitted:

"Ideally there will be a combination of the 3 options proposed. Where mobile plant is being used in the workplace there should be controls to;

- *Ensure no collisions with pedestrians or other mobile plant*
- *Require warning devices ensure adequate field of vision*
- *Traffic management plans How these prescribed controls are implemented will lie with the duty holder – who must be required to undertake genuine engagement with the workers facing the hazards".*

Question 3.8

There were 60 submitters who answered this question about ensure adequate fields of vision. This included four from the agriculture sector, three from the forestry sector, 12 from the construction sector, two from the engineering sector, four from the manufacturing sector, four from the transport and freight sector, two from fisheries, two from the amusement and theme park sector, seven from the energy sector and three territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Forum, Federated Farmers of New Zealand, Oji Fibre Solutions, the Roofing Association of New Zealand, Civil Contractors New Zealand, Recreation Safety Engineering, the Ports of New Zealand, Genesis, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, the Certification Board for Inspection Personnel, New Zealand Institute of Safety Management and the Council of Trade Unions.

There were 40 submitters who recorded "yes" in support of this proposal, with 18 leaving comments – there were no real themes emerging, but submitters noted that fields of vision could be supplemented by CCTV or other mechanisms. There were two mentions of the approach taken in the United Kingdom and Europe, including by the New Zealand Institute of Safety Management. The Motor Industry Association also noted that, "…there should be an equal requirement to ensure that the fitment of additional devices do not restrict vision".

There were six submitters against the proposal with the key theme that it may not always be possible to ensure an adequate field of vision and in those cases other controls would be necessary. The Meat Industry Association was concerned that forklifts would need significant re-design. They were also one of four submitters that said the term "adequate" would need to be further defined (along with Civil Contractors New Zealand Inc).

Concern about the practicality of the proposal, and the impact on forklifts also featured in the comments of the four submitters who were "unsure" about the proposal. There were also eight submitters who otherwise left a comment. Three of these, including the Roofing Association of New Zealand, favoured a risk-based approach.

Question 3.9

There were 57 submitters who answered this question about other requirements needed to manage risk from collision. This included three from the agricultural sector, three from the forestry sector, 12 from the construction sector, two from the engineering sector, two from the manufacturing sector, four from the transport and freight sector, two from the fisheries sector, one from the amusement and theme parks sector (Regional Facilities Auckland), seven from the energy sector and three territorial authorities.

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, Universal Homes Ltd, Recreation Safety Engineering, Oji Fibre Solutions, the Ports of New Zealand, Genesis, Mercury and Contact Energy, Methanex, the Motor and Meat Industry Associations, the Certification Board for Inspection Personnel Inc, and the Council of Trade Unions.

26 of the submitters answered "yes" to this question. The Kiwifruit Industry Health and Safety Forum submitted on a range of additional matters, including the need for traffic management plans, and to ensure that passengers were offered the same level of protections as operators. Traffic management was also mentioned by another submitter.

The New Zealand Arboricultural Association Inc noted that switching off a vehicle doesn't necessarily stop if from moving. This was also noted by three other submitters with Construction Health and Safety submitting that "[T]here may be other controls needed for plant that needs to be kept running for operational reasons (such as hand brake alarms)". The need to keep plant running was a feature in the comments by the five submitters against the proposal. One business noting that:

> *"…in summer, machines are sometimes left on while the operator is not in the cab to allow the air con to continue to operate. The cab of a forklift can get very hot very quickly in summer as it similar to a greenhouse with a seat in the middle. Dust is very high on site so windows are kept closed".*

Two submitters who were unsure also reference the need to keep plant running, as did two submitters that otherwise left a comment. A key theme from the responses to this question was that "immobilised" was different to being "switched off". There were also at least three references to applying the proposal in a form other than regulations and three referencing relying on the Prescribed Risk Management Process. Federated Farmers of New Zealand commented:

> *"Requiring that mobile plant (for example quad bikes and tractors) be switched off in a farm setting would be unnecessary given the limited potential risks posed by collisions on-farm, and the practical requirement to keep some mobile plant operating for limited periods of time when the operator is outside of that machinery. Improvements in technology are already reducing risk in these areas; for example many modern tractors have controls on mudguards to allow work to take place outside of the vehicle in a safe manner. Given these factors we would support better guidance and information around potential specific on-farm collision risks posed by specific mobile plant in specific situations, where there is a link between those behaviours and risk".*

Question 3.10

There were 57 submitters who answered this question. This included three from the agricultural sector, three from the forestry sector, 14 submitters from the construction sector, three from the manufacturing sector, four from transport and freight, two from fisheries, one from the amusement and theme parks sector (Regional Facilities Auckland), eight from the energy sector and three territorial authorities,

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Construction Health and Safety, Universal Homes Ltd, Oji Fibre Solutions, Road Transport Forum New Zealand, Genesis, Contact and Mercury Energy, the Motor and Meat Industry Associations, the New Zealand Institute of Safety Management, Auckland and Christchurch City Councils and the Council of Trade Unions.

Forty-nine of the submitters supported the proposal that information on traffic management should be included in Approved Codes of Practice (ACoPs) or other guidance. The 18 comments re-enforced this with support for industry specific guidance from some (such as Mercury Energy and Federated Farmers of New Zealand) and for consistency by others (such as a territorial authority who wished to remain confidential). At least four references were also made to the Prescribed Risk Management Process, including from Scaffolding, Access and Rigging New Zealand which submitted:

> *Being struck by mobile plant or crushed between mobile plant and an object are the leading causes of fatalities and serious injuries in construction. Reasonably practicable controls should be used in accordance with the Prescribed Risk Management Process to ensure such risks are eliminated or minimised using the highest form of control appropriate to the situation. Use of mobile plant such as forklifts is often secondary to a PCBUs [Person Conducting a Business or Undertakings] core business and the risks involved are overlooked. ACOPs and other Industry Guidance should cover all controls which may be used to control the risks in different circumstances and where possible identify the threshold to progress from one level of control to another".*

There were only two submitters against the proposal – Oji Fibre Solutions – which submitted that, "[T]raffic management is to a large extent defined by the local situation and general requirements will not be always applicable/helpful" and Powerco. Powerco submitted:

> *"Powerco does not support the use of an Approved Code of Practice (ACOP) for traffic management. This is because:*
>
> - *We think the Code of practice for temporary traffic management (COPTTM) is a complex document that is not well understood*
> - *It is difficult to see how individual sections of the COPTTM could be effectively embedded into an ACOP*
> - *We also understand that the COPTTM is currently going through a major revision which will see a number of practical changes*
>
> *Given these concerns, we think Option 2 (follow the Australian model and add some requirements from the United Kingdom (UK)) is a better approach".*

One fisheries submitter was unsure and two others left a comment. The Motor Industry Association felt the question was badly worded and was concerned about adding unnecessary requirements. The Road Transport Forum New Zealand submitted on the importance of plant operators being familiar with the area in which they were working, and being vigilant to risks.

Ensuring passengers are protected

3.11	Do you agree that passengers should have the same level of protection as operators when on mobile plant? *For example, there may be situations where you think it would be safe for passengers to have more or less protection than the operator.*

3.12	Do you think passengers should be expressly banned unless mobile plant is specifically designed to carry them? If yes, is this general or are there specific examples that should be covered. If not, why?

There were two options presented for ensuring passengers are protected. They are:

- Option 1 – Follow the Australian Model Regulations
- Option 2 – (instead of option 1) Prohibit passengers on mobile plant unless it is designed to carry passengers

Question 3.11

There were 63 submitters who answer this question about whether passengers should be required to have the same level of protection as operators. This included three from the agricultural sector, four from the fisheries sector, 14 from the construction sector, two from the engineering sector, four from the manufacturing sector, four from the transport and freight sector, two from fisheries (including a worker), two from the amusement and theme parks sector, seven from the energy sector, and three territorial authorities.

Submitters included the Agricultural Leaders Health and Safety Action Group, Federated Farmers of New Zealand, the Forestry Industry Safety Council, the Roofing Association of New Zealand, Civil Contractors New Zealand In, Universal Homes Ltd, Recreation Safety Engineering, Oji Fibre Solutions, Ports of New Zealand, KiwiRail, Genesis, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, the Certification Board for Inspection Personnel Inc, the New Zealand Institute for Safety Management and the Council of Trade Unions.

Forty-seven of the submitters supported the proposals, with 18 leaving comments – most reiterating their support. Mercury Energy and another submitted expressed a preference toward option 2, that passengers where prohibited from plant unless it was designed to carry them (see question 3.12). Three in support of the proposal, including the Meat Industry Association referenced the potential impact on training. Training was also a concern of one of the three submitters against the proposal – a forestry contractor – that submitted:

> *"Short answer. No. Training on mobile plant is tricky. Log loaders and forklifts don't have a passenger seat in most cases…As a rule, once trained no passengers should be carried as there is no need on a log loader or forklift. If there is a need for a passenger, then the same level of protection will be needed. Seeing farm tractors go down the open road at high speed, well over 50kph with kids in them unrestrained is not needed".*

A submitter against the proposal, who requested confidentiality, left a comment saying that:

> *"…snow groomers can be specifically designed to carry passengers for transport on the back of the groomer. However, this is a different use (eg transport use) than general use for snow grooming operations which may have higher associated risks, and therefore more controls are needed for operators for grooming operation use".*

Using mobile plant in different way to intended was mention by one of the five submitters that selected "unsure", that made a comment very similar to that of the Agricultural Leaders' Health and Safety Action Group (which did not record a yes/no/unsure answer) which submitted:

> *"There needs to be a high level of consideration for this for implements attached to mobile plant and the level of protection required. For example, a potato harvester when a person is standing on their platform or someone standing on a trailer to distribute hay to stock. Requirement for training and competency checking for operators of machinery/mobile plant on farm – not necessarily 'formal' training, can be on-the-job, or some other method – competency is more important than*

> *how they got the training in the first place. The idea is for this to be carried out in a simple effective way, not attending a course etc which is likely to be either unavailable or unsuited to kinaesthetic learning style of many people working on farm".*

Scaffolding, Access and Rigging New Zealand and Genesis Energy both made reference to the Prescribed Risk Management Process and Federated Farmers of New Zealand supported the use of the Australian Model Regulations "so far as reasonably practicable".

Question 3.12

There were 65 submitters who answered this question. This included four from the agriculture sector, three from the forestry sector, 14 from the construction sector, two from the engineering sector, three from the manufacturing sector, four from transport and freight, two from fisheries, two from amusements and theme parks, six from the energy sector and three territorial authorities.

Submitters included Federated Farmers of New Zealand, the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Universals Homes Ltd, Recreation Safety Engineering, Oji Fibre Solutions, Ports of New Zealand, KiwiRail, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, the Kiwifruit Health and Safety Forum, the Meat and Motor Industry Associations, the Certification Board for Inspection Personnel Inc and the Council of Trade Unions.

There were 42 submitters in support of the proposal but only 15 left a comment. One worker from the fisheries sector submitted, "[I]f it's not designed for passengers they shouldn't be on the piece of machinery" and this was representative of a number of the commented left. Concern was expressed again about the impact on training so the word "generally" or "in general" was used by at least six submitters.

There were 11 submitters against the proposal, and training was a feature of their rationale, mentioned by Oji Fibre Solutions and others including Construction Health and Safety New Zealand which submitted:

> *"There may be exceptions (e.g. training, maintenance, testing) where considerations for temporary controls, duration limits, and environmental limits may be required to allow for the operation".*

Other submitters who selected "no" referenced the Prescribed Risk Management Process, including Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand. Training and following a risk assessment process were also the themes in the comments of those submitters that did not leave a yes/no/unsure answer. The four submitters that recorded "unsure" did not leave a comment.

Coverage of requirements

3.13	Do you agree with the suggested definition of "mobile plant" (i.e. plant that is provided with some form of self-propulsion that is ordinarily under the direct control of an operator)?
3.14	If we follow the flexible approach in the Australian Model Regulations, are exemptions for specific types of mobile plant necessary?
3.15	If we follow a less flexible approach, for example, field of vision or banning passengers, are there any specific types of mobile plant that should be exempt from any of the requirements?
3.16	Vehicles less than 700kg are currently exempt from roll-over protection and seatbelt requirements. Are there any vehicles under 700kg that you think should be exempt from the approach in the Australian Model Regulations for mobile plant?

3.17	Are there any types of mobile plant that require specific types of requirements additional to those discussed already for all mobile plant? Please give examples.

There were two options presented for the coverage of requirements. They were:

- Option 1 – No exemptions if the approach in the Australian Model Regulations is adopted
- Option 2 – Some exemptions if less flexible options are followed

Question 3.13

There were 62 submitters who answered this question about the definition of "mobile plant". This included three from the agricultural sector, three from the forestry sector, 13 from the construction sector, two from the engineering sector, two from the manufacturing sector, four from the transport and freight sector, two from the fisheries sector, three from the amusement and theme parks sector, seven from the energy sector and three territorial authorities.

Submitters included Federated Farmers of New Zealand, Core H&S Ltd, the Forestry Industry Safety Council, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Recreation Safety Engineering, Oji Fibre Solutions, Ports of New Zealand, the Road Transport Forum New Zealand, Genesis, Contact and Mercury Energy, Methanex, Auckland and Christchurch City Councils.

Fifty-one of the submitters supported the proposed definition of mobile plant and 16 left a comment. Most of these were making suggestions or seeking clarification on the scope of the definition. The comments by those in support of the proposal were largely consistent with those who submitted "no" (five submitters) and the five submitters that otherwise left a comment. There was on only who recorded "unsure" and did not leave a comment.

Submitters questioned who the operator might be or how the plant might be operated; they made references to remote control plant, and also references to mobile plant that was only operated for short periods of time. For example, the New Zealand Institute of Safety Management submitted:

> *"…but what about automated straddles at the ports that may only have an operator for 5% of the time? Also, consideration for cars and vans used for work purposes (on the road) and are covered under existing NZTA* [New Zealand Transport Authority] *and road laws. Clearer definition required that while they are being used on a work site or for specific work purpose, as opposed to 'just' being driven on the road".*

The Ports of New Zealand and the Forestry Industry Safety Council were one of five submitters that did not record a yes/no/unsure answer but left a comment. The Ports added "hoppers in a port environment" to the straddles mentioned above. Another commented on the circumstances where, "…the self-propulsion is only used to position the vehicle and isn't used while operating the main function of the vehicle. i.e. wood chippers, some elevated work platforms".

The Forestry Industry Safety Council submitted:

> *"Conditional Support - We believe vehicles used on the public road network and subject to WOF* [Warrant of Fitness] *and registration (cars, utes, vans and trucks) should be excluded from the definition of mobile plant. If such vehicles that have modified for use and no longer warranted or registered, they should be included in the definition of mobile plant and subject to associated regulatory requirements".*

One industry body (in support of the definition) commented on the need to be clear about the definition of elevated work platforms and forklifts, to restrict forklifts being used to elevate personnel. Another question was raised about fixed plant on mobile equipment. The Road Transport Forum New Zealand submitted:

> *"The opening of chapter three lists a range of vehicles and machines that would fit under that description. The discussion document has taken care in places to list Swing lifters under that terminology. They are a good example as Swing lifters are a conglomeration of a heavy vehicle semi-trailer fitted with container lifting devices. Semi-trailers are not self-propelled. Therefore, they do not fit fully the suggested definition of mobile plant. There are plenty of other heavy vehicle trailers fitted with plant that similarly do not meet the intended description. Separating stationary plant from mobile or vehicle mounted would be useful for improving safety and understanding".*

Question 3.14

There were 57 submitters who answered this question about exemptions. This included four from the agricultural sector, two from the forestry sector (both forestry contractors), 12 from the construction sector, two from the engineering sector, two from the manufacturing sector, four from the transport and freight sector, two from the fisheries sector, two from the amusement and theme parks sector, seven from the energy sector and three territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Forum, Federated Farmers of New Zealand, the Roofing Association of New Zealand, Rhodes Engineering and Design Ltd, the Ports of New Zealand, the Road Transport Forum New Zealand, Methanex, Auckland and Christchurch City Councils, the New Zealand Institute of Safety Management and the Council of Trade Unions.

There were 23 submitters against the need for exemptions, with few comments left. One submitter highlighted that it was exemptions that was leading to issues with quad bikes. The Council of Trade Unions submitted that, "…there is no need for exemptions as the level of protection/ controls needed will be proportional to the risk as identified in the risk management process".

There were 13 submitters that selected "unsure", with only one leaving a comment that they did not know enough to respond to the question. Seventeen submitters said "yes", that some exemptions were needed, and four others left a comment. One of those commenting was the Land Transport Forum which submitted:

> *"The Model Regulations place responsibility on operators to identify and fit safety equipment as they see fit. We have difficulty with this concept when the document writers highlight issues with equipment owners modifying their gear (Section 4.1.6 of the Discussion Document). The government's land transport safety regulator in 2002, being faced with an unacceptable number of heavy vehicle rollovers, sought to reduce that by implementing heavy vehicle stability standards".*

Of those in support of exemptions, three submitters did not provide detail but suggested that there would be a need to manage this, the Meat Industry Association suggesting that an exemption list could be managed by WorkSafe.

Question 3.15

There were 51 submitters who answered this question about field of visions. This included three from the agricultural sector, three from the forestry sector, 10 from the construction sector, two from the engineering sector, three from the manufacturing sector, ten from the construction sector (including two workers), three from the transport and freight sector, two from fisheries, three from the amusement and theme park sector, five from the energy sector and one territorial authority (Auckland Council).

Submitters included the Agricultural Leaders' Health and Safety Action Group, Federated Famers of New Zealand, the Forestry Industry Safety Council, Recreation Safety Engineering, Oji Fibre Solutions, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Constriction Health and Safety New Zealand, the Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, the Certification Board for Inspection Personnel Inc, the New Zealand Arboricultural Association Inc and the New Zealand Institute of Safety Management.

Twelve submitters said “yes”, with referenced made to forklifts (two), log loaders, diggers, skidders and excavators (one reference each) and Sentinel Inspection Services Ltd submitted in favour of heritage equipment being exempt. Both Genesis Energy and Oji Fibre Solutions commented on their opposition to a less flexible approach. This was also the view of Federated Farmers of New Zealand which was one of 8 submitters that recorded a comment without a yes/no/unsure answer. It submitted that, “[W]e do not support the less flexible approach; it is unnecessarily onerous, impractical and difficult to apply to differing circumstances”.

There were 10 submitters that recorded “unsure” with only one comment left by a private individual who submitted that, “[W]ith regards to field of vision I don't believe you can make specific equipment exempt, as it is operational requirements and not equipment that depict if vision is impaired”. This was broadly the view of Methanex (another in the cohort that did not respond yes/no/unsure – there were no other substantive comments or themes from this cohort).

Twenty-one submitters chose “no”, with almost no substantive comments left. One worker from the fisheries sector submitted that, “[I]f the machinery is used for the task it was designed for and the operator is trained properly, exemption wouldn't be needed”.

Question 3.16

There were 51 submitters who answered this question regarding existing exemptions for plant not exceeding 700kg. This included three from the agricultural sector, two from the forestry sector, three from the engineering sector, one from the manufacturing sector, 10 from the construction sector (including two workers), three from the transport and freight sector, two from fisheries, one from the amusement and theme park sector (Regional Facilities Auckland), seven from the energy sector and two territorial authorities.

Submitters included the Federated Farmers of New Zealand, Recreation Safety Engineering, Oji Fibre Solutions, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construiction Health and Safety New Zealand, the Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Council, the New Zealand Arboricultural Association Inc, New Zealand Institute of Safety Management, along with the Council of Trade Unions and E tū Union.

There were 20 submitters from across a range of sectors that submitted “no” to this question, with few commented left but three simply re-iterating “no exemptions”. The Council of Trade Unions submitted:

> *“Rather than having blanket exemptions for smaller vehicles, the basic requirements should apply to all, and the reasonably practicable controls will be implemented during the risk management process”.*

Genesis Energy recorded no, but commented against a “hard and fast rule”, submitting in favour of a risk based-approach. Horticulture New Zealand Inc held a similar view, submitting on the peculiarities of a kiwifruit orchard:

> *“Horticulture New Zealand would like to see the reduction of harm from plant under 700kg. While manufacturers take the lead in what is specified in the safety requirements for this plant, environmental conditions can override this generalist safety practice. Due to the high incident rates for harm in the area of roll over of this plant, it would be prudent to redesign the control to meet terrains of high risk. The higher the risk, the more controls. For instances, if plant is used under a canopy in a controlled space, like a kiwifruit orchard, crush protection and roll over devices on a four wheeled bike would not be suitable due to height limitations of the canopy framework, and cause more workplace risk. Under such circumstances the hierarchy of controls would be specific to the task at hand. Growers operate a hierarchy of controls for operating plant under 700kg in controlled environments”.*

There were 10 submitters that selected "unsure", 14 that selected "yes" and seven that otherwise left a comment. Those that left comments generally commented on possible risks and exemptions, making specific comments such as:

- "roll over protection should be mandatory on all quad bikes" E tū Union
- "seatbelts should not be exempt" Ports of New Zealand
- "not with forklifts" a sector representative

Of the 14 that submitted "yes" there were three submitters from the agricultural sector all in favour of exemptions; Federated Farmers submitted in favour of the status quo (as did the Motor Industry Association), a private individual noted 4x4 motorbikes and the Agricultural Leaders' Health and Safety Action Group commented:

> *"Quad bikes should have ROPS [Roll Over Protections], but no seat belt. Seat belt use should be mandatory on tractors, utes and side by sides - including retrofitting. With exception of quad bikes which require active riding techniques, there is no point having ROPS without seatbelt".*

An organisation requesting confidentiality submitted on snowmobiles saying that they, "…can't have seatbelts as you need to move your body weight to safely steer the sled".

Question 3.17

There were 38 submitters who answered this question about other mobile plant that might need specific regulation. This included three from the agricultural sector, two from the forestry sector, 11 from the construction sector, two from the engineering sector, one from the manufacturing sector, ten from the construction sector (including two workers), three from the transport and freight sector, one from fisheries, one from the amusement and theme park sector (that wished to remain confidential) and three from the energy sector.

Submitters included the Federated Farmers of New Zealand, the Forestry Industry Safety Council, Recreation Safety Engineering, Oji Fibre Solutions, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Constriction Health and Safety New Zealand, the Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Methanex, New Zealand Institute of Safety Management, along with the Council of Trade Unions.

Of the 13 submitted that selected yes, the themes were:

- mobile plant with other machinery or implements (two submitters)
- robotic or remote-controlled plant (two submitters)
- logging or forestry machinery (three submitters).

While submitting "yes", Federated Farmers of New Zealand commented:

> *"In respect of on-farm equipment we favour more flexible regulations which can be tailored to specific uses, risks and equipment rather than specific regulations in combination with exemptions".*

Twelve submitters selected unsure, with one mentioning All Terrain Vehicles. And, there were nine submitters that selected "no", with Contact Energy saying that, "all mobile plant should be subject to a risk assessment". This was the view of three other submitters recording an comment, including Oji Fibre Solutions.

Ensure risks from forklifts are effectively managed

3.18	Are specific requirements for forklifts needed to effectively address the risks?
3.19	Do the requirements for operator protective devices for all mobile plant effectively address risks for forklifts?
3.20	Should these risks be addressed in regulations, an approved code of practice, other guidance, or a combination of those things?
3.21	Should operators require a ticket (e.g. licence or certificate of competence) to use a forklift?
3.22	Do operator competency regimes sufficiently address the risks identified from forklifts?

There were three options presented for the risks from forklifts. They were:

- Option 1 – No exemptions if the approach in the Australian Model Regulations is adopted
- Option 2 – Develop an approved code of practice or other guidance expressly addressing these risks
- Option 3 – Rely on operator competence to address risks

Of note, many of the submitters that were identified as having direct involvement in the forklift sector requested to remain confidential. Their views have been recorded but organisations, businesses and individuals in the sector that made submissions are generally not named for this reason.

Question 3.18

There were 55 submitters who answered this question about the requirements for forklifts. This included two from the agricultural sector, three contractors from the forestry sector, 13 from the construction sector, two from the engineering sector, three from the manufacturing sector, ten from the construction sector (including two workers), three from the transport and freight sector, two from fisheries, three from the amusement and theme park sector, six from the energy sector and three territorial authorities.

Submitters included the Core H&S Ltd, Stubbs Contractors Ltd, Recreation Safety Engineering, Oji Fibre Solutions, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Constriction Health and Safety New Zealand, the Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, the Certification Board for Inspection Personnel Inc, the New Zealand Arboricultural Association Inc, the New Zealand Institute of Safety Management and the Council of Trade Unions.

There were 40 submitters that responded "yes" that specific requirements were needed for forklifts. Five of these suggested an Approved Code of Practice (ACoP) or guidance, and there was a reference to Australian Standard *AS 2359.1: Powered industrial trucks General requirements.* A number of the other submitters highlighted the risks and the harms from the use of forklifts.

Three submitted "no", with three different responses. One submitter considered that forklifts should be considered mobile plant (see also question 3.19), another advocated for an ACoP and the other for an improved competency system.

Developing an ACoP was referenced by Oji Fibre Solutions and Horticulture New Zealand which were two of eight submitters that did not record yes/no/unsure. Four others referenced a risk-based approach or the Prescribed Risk Management Process include Scaffolding, Access and Rigging New Zealand. The Council of Trade Unions submitted in favour of option 1:

> *"We would support the specific requirements for forklifts as in the Australian model regulations. As MBIE* [the Ministry of Business, Innovation and Employment] *has correctly identified, forklifts have*

increased risks as opposed to other mobile plant through both the machine itself, and the environment it is used in. The CTU opposes option 3. Many worksite hazards where forklifts are used are not able to be controlled by the driver solely – i.e. they are not able to implement engineering controls, rostering, scheduling of work etc. The harm is multifaceted beyond the driver and implementing option 3 shifts the duty to create a safe workplace away from the actual duty holder and onto the workers".

Question 3.19

There were 49 submitters who answered this question about whether the requirements for mobile plant effectively address the risks for forklifts. This included two from the agricultural sector, one contractor from the forestry sector, 12 from the construction sector, two from the engineering sector, three from the manufacturing sector, ten from the construction sector (including two workers), three from the transport and freight sector, two from fisheries, two from the amusement and theme park sector, seven from the energy sector and three territorial authorities.

Submitters included the Core H&S Ltd, Stubbs Contractors Ltd, Recreation Safety Engineering, Oji Fibre Solutions, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, the Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, the Certification Board for Inspection Personnel Inc, the New Zealand Arboricultural Association Inc, the New Zealand Institute of Safety Management and the Council of Trade Unions.

Approximately half, 23 submitters, selected "yes" including Civil Contractors New Zealand Inc, Recreation Safety Engineering and Oji Fibre Solutions. These submitters spanned the key sectors and there were no substantive comments made. There were no substantive comments made by the seven submitters that selected "unsure".

Fifteen submitters selected no, again with few comments. Of those that did comment (six submitted) most highlighted the risks involved with the use of forklifts. The Council of Trade Unions submitted:

"The hazards of forklifts go beyond what is set out under the operator protective devices for plant. Protection must be for the driver, passengers, and those within the vicinity of the forklift – without added controls the operator protective devices will not be enough to ensure the safety of all these people".

There were four submitters that otherwise left a comment, and all three submitted in favour of using the Prescribed Risk Management Process or a risk-based approach. They included the Ports of New Zealand, Mercury Energy and the Roofing Association of New Zealand.

Question 3.20

There were:

- 15 submitters that selected "Regulation" in response to this question, including Core H&S Ltd, a forestry contractor, two private individuals from the construction sector, two from the transport and freight sector, one territorial authority and the Council of Trade Unions. Three of these submitters also chose "An Approved Code of Practice" (ACoP), with one lifting industry submitter selecting all three options. The Council of Trade Unions chose a combination of regulations and guidance
- 25 submitters that selected "ACoP". This included a forestry contractor, two from the construction sector including Civil Contractors New Zealand Inc, two from the engineering sector, three from the manufacturing sector including Oji Fibre Solutions, one from fisheries, one from amusement and theme parks, three from the energy sector, Auckland Council, the Certification Board for Inspection Personnel and the New Zealand Institute of Safety Management

- Six submitters chose "Other guidance", with three selecting this option alone. This included the New Zealand Institute of Safety Management, a private individual from the agriculture sector and a large business from the energy sector.

There were five submitters overall selecting a combination of all three options, including the Agricultural Leaders' Health and Safety Action Group. But, overall, the ACoP was a preferred option. Some of the comments received includes that the regulations should remain at a high level (Ports of New Zealand) and that some matters required regulations while others were best addressed through a combination of ACoPs and guidance. One forestry contractor submitted:

> *"Combination. The regulations should state that a PCBU* [Person Conducting a Business or Undertaking] *can deem a driver competent if they are trained on site to the sites hazards and this training is recorded. Regulations should state that there is no need to hold an F endorsement if it is not been driven on the open road. There is some confusion around this as if you don't have a gate on your property its deemed open road. ACOP's would go into more detail around these. For example if you are using a forklift to load/unload goods from a road way you will need an F endorsement AND the forklift will need to have working lights and indicators".*

Question 3.21

There were 58 submitters who answer this question about whether forklift operators should require tickets. This included two from the agricultural sector, three from the forestry sector, 12 from the construction sector, two from the engineering sector, three from the manufacturing sector, ten from the construction sector (including two workers), three from the transport and freight sector, two from fisheries, three from the amusement and theme park sector, six from the energy sector and three territorial authorities.

Submitters included the Core H&S Ltd, Stubbs Contractors Ltd, Recreation Safety Engineering, Oji Fibre Solutions, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, the Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Methanex, Auckland and Christchurch City Councils, the Certification Board for Inspection Personnel Inc, the New Zealand Arboricultural Association Inc, the New Zealand Institute of Safety Management and the Council of Trade Unions.

There was near universal support for some form of competency assessment and ticketing for forklift operators with 54 of the submitters agreeing with this question. The comments left were about the need for, and importance of training and of competency.

There were two submitters that responded "no" – Sentinel Inspection Services Ltd and a forestry contractor (whose "no" was not absolute). Both commented that managing the risks from forklifts was the responsibility of the Person Conducting a Business or Undertaking (PCBU). The forestry contractor submitting:

> *"Only on the open road. If PCBU's can provide documented proof that on-site hazards and risks are identified, training is done, reviewed etc and managed well then no. If they can't provide this evidence then Worksafe should force them to obtain a ticket until such time as they have on-site training and documentation on site".*

The Motor Industry Association advised it had no specific view but recognised that, "…users should be able to demonstrate some level of competence with their use and have that competency recognised". The New Zealand Institute of Safety Management reported in mixed views from its stakeholders.

Question 3.22

There were 50 submitters who answered this question about the competency regime for forklift operators. This included two from the agricultural sector, two from the forestry sector, 12 from the construction

sector, one from the engineering sector (that wished to remain confidential), three from the manufacturing sector, ten from the construction sector (including two workers), three from the transport and freight sector, two from fisheries, two from the amusement and theme park sector, five from the energy sector and three territorial authorities.

Submitters included the Core H&S Ltd, Stubbs Contractors Ltd, Recreation Safety Engineering, Oji Fibre Solutions, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Constriction Health and Safety New Zealand, the Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Auckland and Christchurch City Councils, the New Zealand Arboricultural Association Inc, the New Zealand Institute of Safety Management and the Council of Trade Unions.

Twenty-eight of the submitters responded "no" that the current regime is not adequate, with 13 comments left, one submitter from the sector saying:

> *"…without doubt, absolutely not. The current regime is neither legally compulsory (though it has that effect) nor based on competency of the operator. The existing process operated by the ITO* [Industry Training Organisation] *neither assures the desired learning and competence outcomes are achieved nor provides any confidence the Assessors have been performing a quality role. A competency regime should be mandatory with 12 month re-certification".*

The New Zealand Institute of Safety Management submitted no, "…because you can get one ticket to cover all types, need different certs for different mobile plant". This was echoed by two other submitters including one territorial authority (that wished to remain anonymous). There was another submitter that expressed the sentiment heard in some of the meetings, that training and competency were not the same thing:

> *"External training only provides a licence / certificate to operate, does not mean the operator is experienced to use the forklift safely".*

Three submitters selected unsure, with one commenting that the current arrangements should be satisfactory but are often not followed, and another submitting that there was variability between service providers and the need to address site specific risks.

Six submitters advised "yes", two of them were from the fisheries sector, and one from the forestry sector. The forestry sector submitter and Mercury Energy also referenced the variability of trainers. This was also noted by the Motor Industry association which was one of 5 that did not select yes/no/unsure. The Council of Trade Unions was also one of these and submitted:

> *"The skill to operate this machinery does not expire, though it is good practice to ensure that competency is maintained. A competency regime should ensure that driver competency remains suitable without requiring them to re-sit the unit standard. Regulations should therefore specify that ongoing training and supervision by the PCBU is maintained to ensure that competency is maintained".*

Assessing the impact

3.23	Based on the proposals in this section on *protections for people working with mobile* **plant**, are there any significant costs and/or benefits that will affect you or your organisation?

There were 50 submitters who answered this question, or had their feedback about potential costs recorded here. This included four from the agricultural sector, three from the forestry sector, 13 from the construction sector, one from the engineering sector (that wished to remain confidential), three from the manufacturing sector, ten from the construction sector (including two workers), three from the transport and freight sector, two from fisheries, one from the amusement and theme park sector (Sentinel Inspection Services Ltd), six from the energy sector and two territorial authorities.

Submitters included the Federated Farmers of New Zealand, Stubbs Contractors Ltd, Recreation Safety Engineering, Oji Fibre Solutions, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Constriction Health and Safety New Zealand, the Ports of New Zealand, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Methanex, Auckland Council, the Motor and Meat Industry Associations, the New Zealand Institute of Safety Management and the Council of Trade Unions. The Council of Trade Unions submitted:

> *"Regulation in this area benefits workers by providing clarity around the requirements of their PCBU* [Persons Conducting a Business or Undertaking] *to keep them safe when working with mobile plant. This will also make duty compliance easier for the PCBU. In addition to the comments made at question 2.29, good regulation puts in place worker-centric processes that increase effective communication in the workplace. Good communication between workers, and to management is fundamental to good health and safety, especially on worksites with multiple third party contractors where clear communication is difficult to achieve".*

All of the submitters from the agricultural sector indicated that the proposals would come with cost, with only one commenting on the health and safety benefit (Core H&S Ltd). Substantive feedback was provided by the Agricultural Leaders' Health and Safety Action Group and Federated Farmers of New Zealand. Federated Farmers suggested that the new obligations would not be accepted and implemented if they, "…do not reflect on-farm practicalities". The Action Group submitted:

> *"There will be significant costs incurred. Farming potentially faces large costs due to prevalence of older plant and equipment on many farms and the change in culture that is required to address this. Unlike other industries, producers are unable to pass these costs on and are faced with increasing compliance costs from other areas such as water and nutrient losses. While we acknowledge that these changes are required, consideration on timeline of implementation and initiatives like the recent ACC grants should be supported and expanded, along with other avenues of funding opportunities explored to provide necessary support to help cover the costs".*

All of the forestry sector stakeholders also indicated that significant costs would be occurred, with all providing detail. One submitter highlighted the cost of implementation with nearly every proposal. Conversely, eight of the 13 construction sector submitters suggested that the costs would be offset by the benefits of the proposals (although there were mentions of the cost of retro-fitting some mobile plant).

Costs were also of concern to the Motor Industry Association and the Meat Industry Association, with the Motor Industry Association saying they should be explored in a Regulatory Impact Analysis.

One prominent business in the manufacturing sector commented that, "…our plant is maintained to a high standard and utilises an appropriate range of safety equipment. Our workers and temps have a minimum standard of training up to an "F" endorsement on their drivers licence along with competency reviews". They were not concerned about incurring any costs associated with the proposals.

There was a mixed range of responses from the energy sector submitters, with two of the six unconcerned about cost and one suggesting there would be significant benefits. Another referred to the potential cost of retrofitting plant and Methanex submitted about the cost of implementing traffic management plans.

Overall, costs of some form were mentioned by 17 of the submitters, with the retrofitting of plant and the costs of training and certification of forklift operators seeming to be a key concern. One territorial authority also submitted that there would be costs involved in seeking advice to support their implementation of the proposals.

There were 14 submitters who believed there would be no costs, or the costs would be offset by benefits, for example, Universal Homes submitted:

"There may be inadvertent increase in some costs but I do not believe that any increase in cost would be disproportionate to benefits gained through having more competent workers working in safer environments that will lead to better efficiencies".

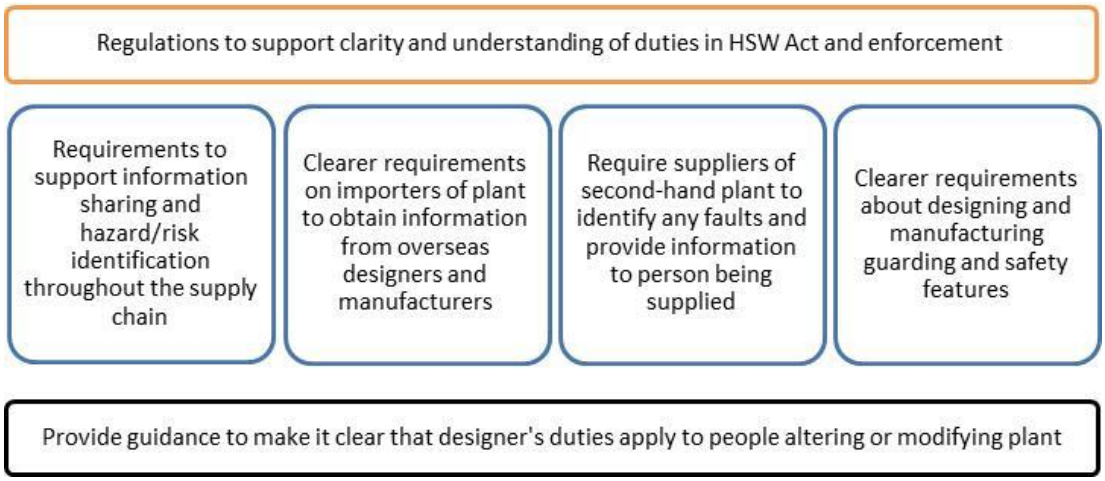
Section 4: Designing, manufacturing, importing, supplying, and installing plant and structures

This section summaries the feedback on the proposals for duties on a Person Conducting a Business or Undertaking (PCBU) who:

- designs plant or structures
- manufactures plant or structures
- imports plant or structures
- supplies plant or structures
- installs, constructs, or commissions plant or structures.

The PCBU in this section are often called "upstream PCBUs" because the PCBUs usually come first in the supply chain for plant or structures. That is, they are usually upstream from the PCBU managing or controlling the plant or structure in the workplace. Duties for upstream PCBUs were consulted upon as plant and structures should be designed, manufactured, imported, supplied and installed to be without risks to health and safety.

The proposals for "upstream PCBUs" included:



Summary of submissions received

Upstream PCBUs are uncertain about how to fulfil their duties in relation to structures

4.1	Do you agree with the risks and issues identified in section 4.1 of the discussion paper?
4.2	From your experience, are there any other risks and issues arising for upstream duty holders? *Think about the life cycle of a plant or structure – from design, construction, maintenance, repair, modification, operation, and decommissioning or demolition.*

Question 4.1

There were 69 submitters who answered this question. This included three from the agriculture sector, one from the forestry sector (a contractor which requested to remain confidential), 10 from the construction sector, six from the engineering sector, two from the manufacturing sector, one from the transport and freight sector (the Ports of New Zealand), one from fisheries (that wished to remain confidential), 17 from the amusement and theme parks sector (almost all being from the model engineering sector), six from the energy sector, along with three territorial authorities. Submitters included the Agricultural Leaders' Health

and Safety Action Group (ALHSAG) , Civil Contractors New Zealand Inc, Scaffolding Access and Rigging New Zealand (SARNZ) and Engineering New Zealand, Recreation Safety Engineering and Rhodes Engineering and Design Ltd, Oji Fibre Solutions, AJ Hackett Bungy New Zealand, Genesis, Contact and Mercury Energy, Methanex, Auckland, Christchurch and Dunedin City Councils, the Motor and Meat Industry Associations and the Council of Trade Unions (CTU).

Forty-four of the submitters responded "yes", that the risks associated with how upstream duties are being fulfilled were accurately described in the Discussion Paper. A number provided further comments in support of their view and highlighted the complexity of the problem of imposing upstream duties. For example, Contact Energy commented that the risks as described "are [a] gross over simplification of a complex problem set…Often the upstream is supplying only part of the kit and they can't possibly understand the integrated safety nature of process plant".

The risk created by the mixing of different pieces of plant together was also raised by Scaffolding, Access and Rigging New Zealand which commented, "[F]urther consequences may arise during the life of products when they are mixed with other systems due to sale of business or [the use of] second-hand equipment, or simply mixing of various systems which are dimensionally compatible but have different structural properties". Along with the mixing of plant, modification of plant was raised as an issue. Three submitters including Engineering New Zealand referenced it in their comments.

Fourteen submitted against the risks presented in the Discussion Paper. All of these submitters were from the model engineering sector. The sector commented that:

> *"As the Model Engineering Hobby by its very nature includes design, manufacture, installation and the commissioning of plant which form a complete miniature railway. The risks involved are best managed by the current management processes overseen by Model Engineering Association of New Zealand [Model Engineering Association of New Zealand]".*

The two submitters who recorded "unsure" about the way the risk were described in the Discussion Paper did not leave a comment as to why.

Question 4.2

There were 53 submitters who answered this question. This included two from the agriculture sector, two contractors from the forestry sector, eight from the construction sector, six from the engineering sector, four from the manufacturing sector, one from transport and freight (the Ports of New Zealand), one from fisheries (that wished to remain confidential), eight amusement and theme parks (predominantly from the model engineering sector), five from the energy sector, with two territorial authorities.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, the Roofing Association of New Zealand, Engineering New Zealand, Recreation Safety New Zealand, Rhodes Engineering and Design Ltd, Layher Ltd, AJ Hackett Bungy New Zealand, Genesis, Contact and Mercury Energy, Methanex, the Motor and Meat Industry Associations and the Certification Board for Inspection Personnel Inc (CBIP).

Seventeen submitters responded "yes", that there were upstream risks other than those in the Discussion Paper that should be considered. Six of the submitters then went on to make some sort of comment about upstream duty holders being incentivised to avoid or minimise their liabilities. The theme of their concern was that if duty were imposed, upstream PCBUs might look for ways to minimise or defer those duties.[2]

Five submitters commented about the risks presented from aged or modified equipment, including a lack of quality and up-to-date information about the equipment being available.

[2] These submitters did not reference the existing duties in the HSW Act in their feedback.

"Copy cat design" was also referred to by one submitter. They commented that a copy might not meet the same standard as an original piece of equipment.

The construction sector representatives that provided feedback in the New Zealand Institute of Safety Management (NZISM) submission referenced the health and safety risks associated with the construction of new plant itself. They commented on the need to, "…consider the workers who will be building or constructing the structures. Designers of structures need more specific obligations around things like access". They also included a comment about the need to consider the de-commissioning and demolition of plant. One submitter that wished to remain anonymous submitted along a similar theme questioning, "…are disposers considered as upstream duty holders for a waste management company? More thought should be in place for these regs for end of life stages of plant".

Four submitted that there were no other risks and issues arising for upstream duty holders. Three of the submitters were from the model engineering sector; two of them commenting that their structures were covered by the Building Act 2004. The other submitter was from the forestry sector and was concerned about the cost of imposing additional upstream duties.

Ensuring upstream duty holders understand their duties and how to comply with them

4.3	What tool, or combination of tools, do you think will be most effective to ensure upstream duties in the HSW Act are complied with in general, and in relation to each of the issues and options below?

There were 49 submitters who answered this question. This included three from the agriculture sector, eight from the construction sector, six from the engineering sector, three from the manufacturing sector, one from transport and freight (the Ports of New Zealand), one from fisheries (that wished to remain confidential), three amusement and theme parks, six from the energy sector, along with two territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Engineering New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Oji Fibre Solutions, AJ Hackett Bungy New Zealand, Genesis, Mercury and Contact Energy, Methanex, the Meat Industry Association, the Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management and the Council of Trade Unions.

Of the submitters that responded to this question, 18 referred to regulations, 21 referred to an Approved Code of Practice, 17 referred to guidance (or a combination of these tools) for imposing upstream duties. The other key themes were the need for education (nine references) and the need to enforce obligations (eight references). Six references were also made to the potential to use Standards, although it was noted that Standards do need to be kept up to date and be accessible (at no cost).

One private individual, a designer engineer, commented:

> *"The most useful tools from a designer's perspective are well written codes of practice and standards but there is no doubt that education is important. As a design engineer, it seems that a large proportion of my job is educating clients and vendors about the regulations/requirements and their duties. Both high level informative sessions as well as in-depth detailed training is required periodically from my experience".*

In their comments, two submitters noted that the tools put in place should not stifle innovation.

Ensuring hazards are identified and adequate information is provided, obtained and acted on in relation to plant

4.4	Should we follow the approach taken in the Australian Model Regulations for providing information and identifying hazards and risks in plant?
4.5	What information should designers have to provide to manufacturers about plant? Should it include information about design life or safety critical components?
4.6	Are there other ways to ensure adequate information is provided, obtained, and implemented?
4.7	The Australian Model Regulations only put requirements on designers, manufacturers and importers of plant about identifying hazards. Should suppliers, and installers/ commissioners/ constructors of plant have similar requirements?
4.8	Do you think there should be a duty on PCBUs requesting or ordering new designs of plant to provide designers with information about risks and hazards at the workplace or that could arise from the intended use of the plant?

There were two options presented for ensuring hazards are identified and adequate information is provided, obtained and acted on in relation to plant. They were:

- Option 1 – Follow the Australian Model Regulations
- Option 2 – Require clients to given information to designer to help them eliminate and minimise risk

Question 4.4

There were 57 submitters who answered this question. This included four from the agriculture sector, one contractor from the forestry sector (that wished to remain confidential), ten from the construction sector, six from the engineering sector, three from the manufacturing sector, one from transport (the Ports of New Zealand), one from fisheries (that wished to remain confidential), six amusement and theme parks, six from the energy sector, along with one territorial authority (Auckland Council).

Submitters included Agricultural Leaders' Health and Safety Action Group, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Recreation Safety Engineering, Rhodes Safety and Design Ltd, Oji Fibre Solutions, AJ Hackett Bungy New Zealand, Regional Facilities Auckland, Methanex, the Crane Industry Association, the New Zealand Institute of Safety Management and Council of Trade Unions.

Twenty-nine of the submitters responded "yes" in support of following the Australian Model Regulations but they did not provide a lot of detail about their reasons for holding this view. Two submitters, including Civil Contractors New Zealand and another from the sector were interested in the potential cost. Some submitters fed back that comparative differences in operational approaches with Australia would need to be carefully considered."

Six submitted against the proposal, with four providing comment in support of their view. Each had a different rationale. One commented that enforcement of current requirements was their preferred approach. A model engineering society commented that it was capable of identifying its own hazards while a forestry contractor said it had its own operating manual and risk assessment. Oji Fibre Solutions commented that:

> *"Regulation is inflexible and unwieldy over time. If controls are needed they should be by means of a code of practice or a good practice guideline. It is not practical to require overseas manufacturers and suppliers of machinery to design industrial plant to comply with New Zealand regulations. Such*

equipment will be designed to an appropriate standard in the country of origin and generally the NZ market is too small to justify special compliance with NZ regulation".

There was also no consistent theme from the eight submitters which recorded "unsure". One commented that "[O]nly mandatory prescribed controls will be effective". Another was concerned that the Australian model did not appear to require third party auditing of plant and that they would to see that in their industry.

Contact Energy did not record a specific view but noted that the two options would be, "…practical for simple single items of plant, however for Pressure Equipment the vessel or pipeline is only a piece of the plant that must be safely managed".

Question 4.5

There were 49 submitters who answered this question. This included two from the agriculture sector, two contractors from the forestry sector, nine from the construction sector, six from the engineering sector, three from the manufacturing sector, one from transport and freight (the Ports of New Zealand), one fisheries (that wished to remain confidential), three amusement and theme parks, six from the energy sector along with two territorial authorities.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Oji Fibre Solutions, Sentinel Inspection Services Ltd, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Auckland and Christchurch City Councils, the Meat Industry Association, New Zealand Arboricultural Association, the Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management and Council of Trade Unions.

Twenty six submitters supported the proposal to require design life information and twenty six also supported the provision of safety critical information. These submitters included Civil Contractors New Zealand Inc and AJ Hackett Bungy New Zealand. The other information needs referenced included:

- compliance with Standards (six submitters)
- operations and maintenance information (five submitters)
- inspection and testing requirements (four submitters)
- environmental information (three submitters)
- the information listed in option 1 related to the Australian Model Regulations (three submitters).

The Ports of Zealand referenced the United Kingdom *Supply of Machinery (Safety) (Amendment) Regulations 2011* as providing an example of information requirements. Individual references were made to commissioning and de-commissioning information, enhancement information, ergonomic information, operator protection information and fabrication information. One submitter also noted that, "[T]here are copyright or trade secrets issues to consider" with the provision of information.

The Certification Board for Inspection Personnel Inc and Recreation Safety Engineering both commented that, "[T]he designer's specifications should be sufficiently complete and detailed that the manufacturer should not have to concern himself with these details. If the manufacturer identifies any gaps in the specification this is a failing on the part of the designer and needs to be addressed".

Oji Fibre Solutions also provided some detail as to its expectation of information needs, subject to a reasonableness test, being, information "…on safe operation & maintenance of equipment, including safety critical elements, safety logic and interlocking, guarding, equipment design life, corrosion allowances and critical modes of failure". Operation and maintenance information was also referenced by four other submitters (making five in total).

Only one submitter who provide a comment in this section did not think further information was necessary commenting the requirement to provide design life and safety critical information, "…currently exists under section 42 of the Act. No need to repeat it".

Question 4.6

There were 48 submitters who answered this question. This included three from the agriculture sector, nine from the construction sector, five from the engineering sector, three from the manufacturing sector, one from transport (the Ports of New Zealand), one from fisheries (that wished to remain confidential), four amusement and theme parks, four from the energy sector with one territorial authority (Auckland Council).

Submitters included ALHSAG, CCNIZ, Construction Health and Safety New Zealand, SARNZ, the Roofing Association of New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Oji Fibre Solutions, AJ Hackett Bungy New Zealand, Regional Facilities Auckland, the Motor and Meat Industry Associations, the New Zealand Institute of Safety Management, Council of Trade Unions and E tū Union.

Fifteen of the submitters responded "yes, that there were other ways to ensure adequate information if provided, obtained and implemented". The New Zealand Council of Trade Unions submitted that,

> *"Other ways to ensure information remains with the plant is to require standardised signs or markings to be placed on the plant, in a similar way to signs on stored hazardous substances. This might help with plant changing hands without the corresponding information. Alternatively investment in electronic systems of registering information that could be passed onto new owners could be investigated".*

One submitter that wished to remain anonymous also referred to the approach to hazardous substances and seven other submitters referred to the use of decals, QR code and the use of electronic systems. They included the New Zealand Institute of Safety Management, the Agricultural Leaders' Health and Safety Action Group and Construction Health and Safety New Zealand.

Four submitters commented that a guide setting out required information could be developed and four also submitted that information requirements would need to be in regulations or approved codes of practice, this included Rhodes Engineering Design Ltd. Three submitters referenced the use of a register with one energy company commenting that it, "…must not be made public as it does open up high-risk plant to activists".

Two submitted "no" but did not provide any comment as to their rationale. This was also the case for those nine submitters that recorded that they were "unsure".

Question 4.7

There were 56 submitters who answered this question. This included three from the agriculture sector, 12 from the construction sector, six from the engineering sector, three from the manufacturing sector, one from transport (the Ports of New Zealand), one from fisheries (that wished to remain confidential), five amusement and theme parks, six from the energy sector along with two territorial authorities.

Submitters included ALHSAG , Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, SARNZ , Recreation Safety New Zealand, Rhodes Engineering and Design Ltd, Oji Fibre Solutions, AJ Hackett Bungy New Zealand, Sentinel Inspection Services Ltd, MinEx, Auckland and Christchurch City Councils, the Meat Industry Association, New Zealand Arboricultural Association, Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management and the Council of Trade Unions.

Thirty-seven of the submitters responded "yes", with no clear themes emerging as to their rational. Four references were made to risk in the supply, construction and commissioning of new plant and structures. Risk in relation to construction and commissioning was also raised in other comments on this section. Two

references were made to the additional PCBUs referenced in the question being part of the supply chain and two references were made to information being lost in the supply chain.

There was concern in the comments about overlapping duties and confusion with regard to responsibilities. This was referred to three times, including by the Meat Industry Association.

Two submitters recorded "no" and four submitters recorded "unsure" in response to this question. However, some uncertainty was expressed in comments. One construction sector submitter noted that suppliers, "…don't hold the same level of technical knowledge or ability to influence change. Suppliers should be accountable to check integrity of process upstream and act to provide all relevant details to customers". A similar comment was received from Oji Fibre Solutions and the Council of Trade Unions also commented that, "Suppliers, and installers/commissioners and constructors of plant should have the same requirements as designers, manufacturers and importers so far as is reasonably practicable for their position".

Question 4.8

There were 25 submitters who answered this question. This included ALHSAG , Civil Contractors New Zealand Inc, Civil Contractors New Zealand Inc, and Scaffolding, Access and Rigging New Zealand from the construction sector, three from the engineer sector, Oji Fibre Solutions from the manufacturing sector, the Ports of New Zealand from transport, AJ Hackett Bungy New Zealand from amusement and theme parks, four from energy sector (Genesis, Contact and Mercury Energy, Methanex) along with Auckland and Christchurch City Councils. Other submitters included the Meat and Motor Industry Associations, the Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management and the Council of Trade Unions.

15 of the submitters recorded "yes". Of these and other comments, , two themes emerged. One was that any duty would need to be focus on the risks and hazards that might impact the design of the plant or structure and were relevant to it construction, commissioning and use in a particular place. For example, the Meat Industry Association commented, "The term "at the workplace" is be too broad. It should be changed to relevant to the intended use of the plant within the workplace but not including all hazards within the workplace as this adds no value". A similar comment was made by the New Zealand Institute of Safety Management.

The second theme was about how the duty might realistically be imposed and met. For example, the Motor Industry Association commented that, "It is important to note that for a lot of mass-produced plant, the New Zealand market may be very small and therefore have limited influence in dictating design parameters". At least two other submitters commented on the ability of the commissioning PCBU, included the Certification Board for Inspection Personnel Inc that noted, "…who may not realise that professional engineering advice is required to accurately and completely specify requirements".

The New Zealand Arboriculture Association Ltd submitted against the proposal, suggesting that the designer should have the obligation to obtain this information.

Ensuring imported plant meets New Zealand health and safety standards

4.9	Do you think importers should have to take all reasonable steps to get information from overseas manufacturers and designers equivalent to that which would be required if the designer or manufacturer were based in New Zealand? Think about how this would work in practice and what the implications might be.
4.10	Should we have a list of recognised jurisdictions that importers could rely on to ensure plant meets New Zealand health and safety requirements?

There were two options presented for ensuring imported plant meets New Zealand health and safety standards. They were:

- Option 1 – Follow the Australian Model Regulations
- Option 2 – Recognise the requirements of overseas jurisdictions

Question 4.9

There were 60 submitters who answered this question. This included four from the agriculture sector, one contractor from the forestry sector (who wished to remain confidential), 11 from the construction sector, six from the engineering sector, three from the manufacturing sector, one from transport and freight (the Ports of New Zealand), one from fisheries (that wished to remain confidential), four amusement and theme parks, six from the energy sector along with two territorial authorities.

Submitters included ALHSAG , Civil Contractors New Zealand Inc, CHASNZ, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Layher Ltd, Regional Facilities Auckland, Genesis, Contact and Mercury Energy, Methanex, the Meat Industry Association, the New Zealand Institute of Safety Management, Council of Trade Unions and E tū Union.

Forty-seven of the submitters responded "yes". The New Zealand Council of Trade Union's submission is representative of many of the submitters. It submitted:

> *"If the importer is taking it upon themselves to introduce plant to the market (and therefore introduce the associated risk with that plant), then they should assume the role that would have occurred had the design and manufacturing taken place in New Zealand. The caveat in this proposal is "so far as is reasonably practicable" which mitigates any unreasonable burden on the importer. Without having these duties pass onto the importer this leaves a sizeable lacuna in the upstream duties in which information sharing is lost, such as is the case currently".*

Of the other comments, there were 11 submissions that covered a broad theme associated with concerns over the accuracy and veracity of the information received from overseas designers and manufacturers, and the need for alignment of against Standards. Two of these submissions referenced fraud occurring in the undertaking or provision of test reports or the certification processes offshore. One scaffolding business submitted the following that was echoed in the Scaffolding, Access and Rigging New Zealand submission:

> *"Yes, importers should be required to obtain information from overseas designers and manufacturers equivalent or better than that required by Australian/New Zealand Standards for scaffolding. Further, the information should be verified by a Chartered Professional Engineer (CPEng) with experience in that field*
>
> *We have seen examples of equipment being imported with inadequate evidence of compliance with the AS/NZS Standards. Often test certificates are only for one of many tests required (normally AS/NZS1576.3 Appendix B) and in some cases the test certificates provided were for an entirely different system to the one being imported. Importers should also be required by regulation to have proven, auditable and current quality management systems to ensure conformity with verified scaffolding plant design".*

Four submitters referenced challenges associated with balancing the needs for information against intellectual property rights. There was two "no" responses to the question, with the submitter who commented suggesting that if plant or structures met a European Standard that would exceed a New Zealand Standard.

Question 4.10

There were 60 submitters who answered this question. This included three from the agriculture sector, one contractor from the forestry sector, 11 from the construction sector, six from the engineering sector, three from the manufacturing sector, one from transport and freight (the Ports of New Zealand), one from fisheries (that wished to remain confidential), five amusement and theme parks, six from the energy sector, along with two territorial authorities.

Submitters included CCNZ, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Layher Ltd, Sentinel Inspection Services Ltd, Methanex, the Motor and Meat Industry Associations, New Zealand Institute of Safety Management and the Council of Trade Unions.

Thirty-two of the submitters responded "yes" in support of the proposal to have a list of recognised jurisdictions that importers could rely on. Of those in support, a key theme was that it would be helpful and provide clarity. However, many commenting in support of the proposal noted the potential challenges of creating lists that recognised different types of plant, such as bespoke plant. The Motor Industry Association (MIA) commented:

> *"When considering the wider range of products and procedures relating to the imported goods to which possible regulations could apply, it would seem impractical to list all possible jurisdictions. The other aspect is that is it the jurisdiction that is then issue or is it the relevant standards. Regardless, the practicality of listing either all possible jurisdictions and /or standards, especially on this scale is often out of date the day after the regulations become law".*

The MIA's view of the need to focus on comparable Standards, not jurisdictions was echoed in five other submissions including the Meat Industry Association submission, which stated, "[T]he focus should be on agreed standards not jurisdictions or countries". A similar view was expressed in the Roofing Association of New Zealand and Civil Contractors New Zealand Inc submissions, along with two others. This was a key theme of those who did not support the proposal.

Another theme from submitters against the proposal was that there would remain a need for the importers to have responsibility. This was referred to in some way by six submitters. The Layher Ltd submission was representative. It commented:

> *"We believe onus should be on the importer to prove conformity with Australian/New Zealand Standards for scaffolding, and this should be the case for importation of both new and used scaffolding.*
>
> *In the case of scaffolding we would advise against implementing a list of recognised jurisdictions that importers could rely on to ensure plant meets New Zealand Health and Safety requirements. Scaffold construction in many respects is unique in New Zealand. For instance, New Zealand has different building styles (e.g. residential), different building methods (e.g. precast), different environmental conditions (e.g. severe wind). AS/NZS Standards for scaffolding have been developed often with these unique New Zealand conditions in mind. The only other international standards referenced in the AS/NZS Standards for scaffolding are the European (EN) and British (BS) Standards".*

Ensuring second-hand plant meets health and safety requirements

4.11	Do you think suppliers of second-hand plant should be required to identify faults in the plant and give information to the person they supplied it to? *Note that any controls on suppliers of second-hand plant would not apply to plant sold "as is" because this is excluded from the duty on suppliers in the HSW Act.*

There were 57 submitters who answered this question. This included four from the agriculture sector, one contractor from the forestry sector, 11 from the construction sector, seven from the engineering sector (predominately private individuals), two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), one from fisheries (that wished to remain confidential), four from amusement and theme parks, six from the energy sector, and two territorial authorities (Auckland and Christchurch City Councils).

Submitters included ALHSAG , Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Oji Fibre Solutions, AJ Hackett Bungy New Zealand, Genesis, Mercury and Contact Energy, the Motor and Meat Industry Associations, Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management and the Council of Trade Unions.

Thirty-seven of the submitters responded "yes" in support of the proposal. 13 referenced that the information could only be provided as far as is practicable or known, and references were made about the difficulties in obtaining information from overseas.

A key theme from those three who submitted "no" against the proposal or those six that were "unsure" was that it would push suppliers into using the "as is" exemption. For example, Contact Energy submitted:

> *"This regulation will just result in significantly more second hand plant being sold 'as is' which reduces the information available to the purchaser. The supplier should be held to take all reasonable and practical steps to inform the purchaser of the condition of the plant and any information that may be pertinent to the buyer".*

The Agricultural Leaders' Health and Safety Action Group submitted that, "…there should be a due diligence duty on a supplier to supply information on known faults as well as ensure service history and manuals are provided. If unable to do so ***then*** it is sold as is with all the onus on the buyer" [emphasis added].

One submitter, from the waste management sector submitted:

> *"[W]ill the definition of second-hand plant include those transferred internally within the company and via business acquisitions, i.e. a truck is no longer needed in site A, moved to site B for use. As far as the worker at site B is concerned, their health and safety relies on whether site A communicates the condition of second-hand plant to site B. Also consider how this requirement interacts with the Fair Trading Act and the Consumer Guarantee Act".*

Two other submitters – AJ Hacket Bungy New Zealand and the Motor Industry Association - made reference to the Consumer Guarantees Act 1993 providing protections for purchasers from faulty good. Their implication was that the imposition of a requirement to advise of faults was not necessary.[3]

Ensuring modifications and alterations to plant do not create risks to health and safety

4.12	Do you think guidance would help make it clearer that altering plant is "designing" under s39 of the HSW Act? Do you have any suggestions for what this guidance might cover?

There were 56 submitters who answered this question. This included four from the agriculture sector, one contractor from the forestry sector, 11 from the construction sector, six from the engineering sector, four from the manufacturing sector, one from the transport and freight sector (the Ports of New Zealand), one from the fisheries sector (that wished to remain confidential), six from amusements and theme parks, six from the energy sector and two territorial authorities.

[3] Submitters did not note that the Consumer Guarantees Act 1993 does not apply to products that would not normally be used for personal, domestic or household use.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Layher Ltd, Regional Facilities Auckland, Methanex, the Motor and Meat Industry Associations, the Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management and the Council of Trade Unions.

Forty-one of the submitters supported the proposal that there be further guidance on "designing". Approximately a quarter provided no reason for their view. Oji Fibre Solutions referred to Engineering New Zealand's Practice Note 19, Appendix D as providing useful guidance. The Certification Board for Inspection Personnel Inc and Recreation Safety Engineering provided a comment that listed a range of matters that guidance should cover including:

> *"1. Change of purpose from original. 2. Change of motive power (e.g. Diesel engine to electric motor, with potential electrical safety issues). 3. Change of transmission type (e.g. Mechanical gearing to hydrostatic or electric motor/fixed ratio gearing to VSD (variable speed drive). The main risk with such changes is that the plant will be able to run faster than originally designed. 4. Change of usage or duty cycle. e.g. cranes that were designed for general warehouse light duty work being used with electro-magnets to carry near-capacity loads all day when the warehouse was re-purposed by a steel supplier".*

Of those who did not support the proposal or were "unsure", the key theme was the difficulty in defining "designing" and clarifying the difference between design and repair. One engineer's submission provided as significant amount of detail by way of example. They submitted:

> *"In my experience, the confusion lies with the definition of repair versus alteration as well as a lack of understanding of the implications of an alteration. A definition of "an increase in the risk to health and safety" is too broad and subject to interpretation. Industry guidance and education would be very helpful but I think it would be difficult to write as it would need to specific to the type of plant and industry and cover all of the many factors that go into the design of an item of plant, e.g. loading conditions, materials of construction, operating and environmental conditions, construction techniques etc".*

Ensuring safety features of plant are designed and manufactured properly so they do not create risks to health and safety

4.13	Do you think requirements are needed for the safe design and manufacture of: (a) guarding where it is used as a control measure (b) operational controls (c) emergency stops (d) warning devices?
4.14	What do you think of the way these are managed in the Australian Model Regulations?

Question 4.13

Approximately 30 submitters answered this question, generally selecting "yes" in regard to each of the measures. Two submitters selected "no" in response to the proposal. Responses were received from the agriculture sector, a submission from a contractor within the forestry sector, Construction Health and Safety New Zealand and a number of private individuals from the construction sector, the Ports of New Zealand, AJ Hackett Bungy New Zealand from the amusement and theme parks sector along with Genesis, Mercury and Contact Energy.

Three submitters noted that the safe design feature were a part of AS/NZS 4024, and Oji Fibre Solutions commented that due to this it, "does not support the particulars in the regulations".

Question 4.14

There were 37 comments made on questions 4.13 and 4.14. This included 10 references made – by submitters both for and against the proposed requirement – to the Australia/New Zealand Standard (AS/NZS) 4024 *Safety of machinery Part 1503: Safety-related parts of control systems – General principles for design* (AS/NZS 4024). Some saying the requirement was already in the AS/NZS 4024, other saying that reference must be made to the Standard.

The New Zealand Council of Trade Unions submitted that, "*These aspects of the design should be standardised requirements as this provides clarity and certainty to workers and PCBUs who will come into contact with the plant. Regardless of the workplace and/or type of plant there can be certainty as to the basic safety mechanisms*". The Civil Contractors New Zealand Inc supported the proposed requirements with some reservations commenting, "…provided this does not stifle innovation. It should be noted that warning devices are not applicable for very low speed and traffic environments and when working at night work in residential areas therefore provision for override switches are required.

There were four submitters who were concerned about the level of prescription in the Australian Model Standards, including the New Zealand Institute of Safety Management and Construction Health and Safety New Zealand. Conversely, two submitters suggested that if progressed further guidance would be needed to support the proposed requirement.

There were no other clear themes in the responses. One submitter noted that, "[T]hese principles should apply for operating machines, but for items of plant that do not have moving mechanisms different considerations would apply". Another suggested similar obligations should also apply to structures (as well as to plant).

Make it clearer how upstream PCBUs can fulfil their duties in relation to structures

4.15	Do you prefer option 1 or 2 for structures other than those regulated under the Building Act 2004?
4.16	If we followed the Australian approach (option 1), what would make someone a competent person?
4.17	If we prescribe process controls (option 2), should these requirements apply to construction work where there is only one contractor?
4.18	Do you think there should be a duty on PCBUs requesting or ordering designs of structures to provide designers with information about risks and hazards at the workplace or that could arise from the intended use of the structure?
4.19	What information should designers of structures have to provide to downstream duty holders? Should this be in regulations (as we are proposing for designers of plant)?

There were three options presented for making it clear how upstream PCBUs can fulfil their duties in relation to structures. They were:

- Option 1 – Follow the Australian Model Regulations
- Option 2 – Require process controls to ensure the safety of the structure itself

The third option was presented in addition to options 1 or 2 and was to require PCBUs ordering or requesting designs of structure to help eliminate and minimise risks by providing designers with

information about hazards at the workplace where the structure would be used or that could arise from the intended end-use of the structure.

Question 4.15

There were 58 submitters who answered this question. This included three from the agriculture sector, a contractor from the forestry sector, nine from the construction sector, three from the engineering sector, three from the manufacturing sector, six from the energy sector and Auckland and Christchurch City Councils. Thirteen were from the model engineering sector and all answered that the question was not applicable to them as their structures were regulated under the Building Act 2004.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Recreation Safety New Zealand, Oji Fibre Solutions, Genesis, Mercury and Contact Energy, the Meat Industry Association, New Zealand Institute of Safety Management, Certification Board for Inspection Personnel Inc and the Council of Trade Unions.

Seven of the submitters expressed a preference for option 1 only, to follow the Australian Model Regulations. Only Contact Energy provided a rationale for its choice, commenting that the duties should be the same for those who design plant. Similarly, only three of the 15 submitters who selected option 2 recorded any comment. In its comment, Mercury Energy expressed some concern about relying on a "competent person" under the Australian Model Regulations (option 1). The Council of Trade Unions commented, "[W]e prefer option 2 as this provide clarity to all duty holders in the process. This option would also assist with information sharing during the life of the structure".

The theme of better information was the rationale of the three submitters who recorded a preference for both options combined, including one submitter from the manufacturing sector that wished to remain anonymous. Four submitters supporting both options left comments about the combination filling gaps and being more robust. This included Construction Health and Safety New Zealand. Scaffolding, Access and Rigging New Zealand commented, "Scaffolding, Access and Rigging New Zealand prefers Option 3 for structures not regulated under the Building Act 2004. This approach ensures all PCBUs up and down the supply chain must inform the others of the hazards and risks which might apply to the installation and use of the structure".

The Kiwifruit Industry Health and Safety Forum expressed a preference for all options as option 3, "…additional layer of risk control". It also submitted, "[T]he Forum supports the following information being included in the Act for designers providing information to downstream duty holders - Maintenance - Manuals - Cleaning - Electrical requirements - Safe operation". Two submitters supported options 2 and 3 and one supported option 3. None provided a rationale.

There was only one submission clearly against all the options. Oji Fibre Solutions commented:

> *"OjiFS further recommends that MBIE looks to remove the anomalies that arise from the Building Act's definition of Structures and its exemptions, rather than dealing with the fall-out from what exists now. An obvious example which has caused much angst is that the Building Act's definition of a structure captures pressure vessels, meaning the designer and PCBU of such items are then faced with achieving compliance with two incompatible sets of regulated requirements, using two incompatible design methodologies. The Engineering NZ Practice Note 19 is a thoughtful and practical guide to allow designers and verifiers to chart a path through this mess in respect of seismic design, but as far as we know it has not yet been subject to legal challenge and things would be better if the Building Act was simply altered".*

Question 4.16

There were 38 submitters who answered this question. This included three from the agriculture sector, one contractor from the forestry sector, seven from the construction sector, four from the engineering sector,

two from the manufacturing sector, three from the amusement and theme parks sector, five from the energy sector along with Auckland Council.

Submitters included Core H&S Ltd, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design, Oji Fibre Solutions, Genesis, Mercury and Contact Energy, the Meat Industry Association, Lifting Equipment Engineers Association, Certification Board for Inspection Personnel Inc, and the New Zealand Institute of Safety Management.

There was a mix in the nature of responses to this question. Eight submitters named a Chartered Professional Engineer (CPEng) as a "competent person". Eighteen referenced skills and/or experience, training and/or qualifications, and certification or accreditation as being representative of competency. The New Zealand Institute of Safety Management commented, "[T]here is such a range of skills and competencies required that unlikely to be one person for a complex structure". This need to enable flexibility in the definition was another theme of submitters and was also noted by Civil Contractors New Zealand Inc, and the Lifting Equipment Engineers Association.

Question 4.17

There were 43 submitters who answered this question. This included three from the agriculture sector, one contractor from the forestry sector, eight from the construction sector, three from the engineering sector, three from the manufacturing sector, one from transport and freight (the Ports of New Zealand, one from the fisheries sector (that wished to remain confidential), three from amusement and theme parks sector, along with five from the energy sector and two territorial authorities.

Submitters included Core H&S Ltd, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, Recreation Safety Engineering, Oji Fibre Solutions, Regional Facilities Auckland, Genesis, Mercury and Contact Energy, Methanex, the Meat Industry Association, Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management and the Council of Trade Unions.

Twenty-five submitters responded "yes" in support of the proposal. A key theme as to why was that it would enable others downstream to be made aware of risks or safety issues. Three other submitters that did not record a yes/no/unsure answer commented that the proposal should apply to all constructions sites including Scaffolding, Access and Rigging New Zealand. Eight submitters that recorded "unsure". Two of these recorded comments noting the possible complexity of the proposal. One of those submitters, a private individual, noted, "[O]nly very simple structures will have one contractor".

Five submitted against the proposal. One submitter provided a comment about the need for the involvement of an independent person.

Question 4.18

There were 48 submitters who answered this question. This included three from the agriculture sector, one contractor from the forestry sector, nine from the construction sector, four from the engineering sector, two from the manufacturing sector, one from the fisheries sector (that wished to remain confidential), four from the amusement and theme parks sector, six from the energy sector along with Auckland and Christchurch City Councils.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, Recreation Safety Engineer, Rhodes Engineering and Design Ltd, Oji Fibre Solutions, Genesis. Mercury and Contact Energy, the Meat and Motor Industry Associations, the Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management and the Council of Trade Unions.

30 submitters were in support of this proposal. A key theme arising from submitters in support of the proposal was that it would be reasonable to expect a PCBU ordering or requesting designs to provide information. Auckland Council commented, "PCBUs must share all relevant information" and a construction sector submitter commented it would be "…a collaborative approach to a shared duty". CTU submitted "For clarity and consistency, this should be required. It would provide the designer will all information necessary to ensure that adequate risk identification can occur."

Three submitters noted that the proposal should not relieve designers of their own obligations, including Oji Fibre Solutions. One submitter, that wished to remain anonymous, commented, "…PCBU's may not be aware of what they need to supply, or identify design aspects designers would need".

Question 4.19

There were 36 submitters who answered this question. This included one from the agriculture sector (Core H&S Ltd), one contractor from the forestry sector, seven from the construction sector, three from the engineering sector and three from the manufacturing sector, one from the fisheries sector (that wished to remain confidential), two from amusement and theme parks sector, four from the energy sector and the Auckland and Christchurch City Councils.

Submitters included Civil Contractors New Zealand Inc, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Recreation Safety Engineering, Oji Fibre Solutions, AJ Hackett Bungy New Zealand, Methanex, the Meat Industry Association, Arboricultural Association Inc, the Certification Board for Inspection Personnel Inc and the Council of Trade Unions.

Five referred to the responses they provided to question 4.5, which asked about information that should be provided by designers of plant. Twelve submitters mentioned health, safety and maintenance requirements in some form. The New Zealand Council of Trade Unions submitted, "Information pertaining to the lifecycle of the structure and risk minimisation – maintenance, cleaning, refurbishment and any information relevant to intended use or future redesign".

Other information types considered necessary or useful recorded by submitters included test results or certifications (five submitters), design parameters and limitations on use (five submitters), relevant calculations (three submitters), relevant standards (three submitters).

Assessing the impact

4.20	Based on the proposals in this section on *designing, manufacturing, importing, supplying, and installing plant or structures*, are there any significant costs and/or benefits that will affect you or your organisation?

Approximately one quarter of all submitters (43) answered this question. This included four from the agriculture sector, seven from the construction sector, four from the engineering sector (three of those being private individuals), three from the manufacturing sector, one from transport (the Ports of New Zealand), one from fisheries (the New Zealand Fishing Health and Safety Forum), two from the amusement and theme parks sector including AJ Hackett Bungy New Zealand, 4 from the energy sector along with two territorial authorities.

Submitters included the Agricultural Leaders' Health and Safety Action Group, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, Oji Fibre Solutions, Genesis, Mercury and Contact Energy and Methanex.

A number of submitters appeared unconcerned about the potential costs of the proposals commenting either that they were consistent with their current approach or that the up-front costs would be outweighed by the safety benefits. The New Zealand Council of Trade Union's submission noted, "[P]roviding a framework of clear regulation would have the benefit of increased worker engagement and safety".

Of the submitters that were concerned about cost, none provided any quantification of what those costs might be. A key theme, which has also arisen elsewhere, was about the cost associated with applying new requirements to older or ageing plant. The Ports of New Zealand submission referenced the cost/benefit consideration and was similar to the submission by a representative of the construction sector:

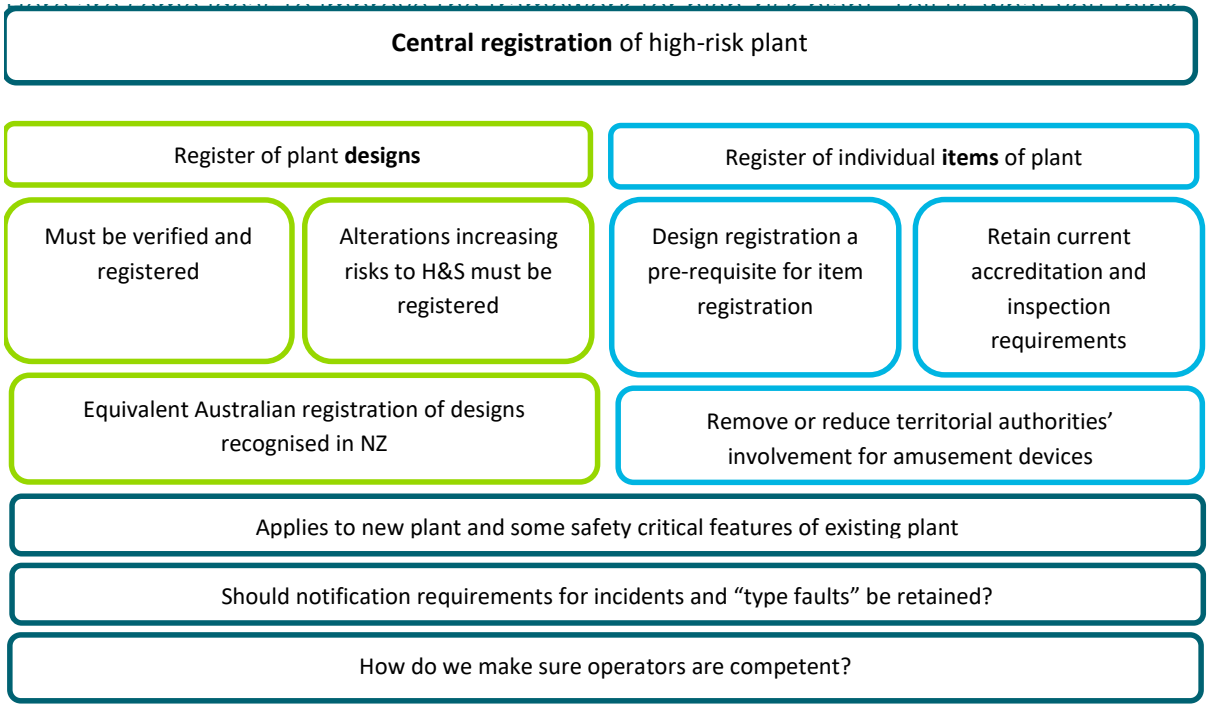
> *"While there would be realised safety benefits, the large and complex plant and equipment operated in the Port industry would require significant investment to either upgrade or replace if regulations dictated significant change. This would also require an extended time period to enable PCBU's to plan for and implement the required upgrades".*

Concern about the impact on the agricultural sector due to older or aging plant was specifically referenced by two submitters, including the Agricultural Leader's Health and Safety Forum.

One of the other themes evident in relation to costs, were those that would be associated with the need for specialist advice as part of the design of a plant or structure.

Section 5: High-risk plant

The risks arising from high-risk plant can have catastrophic consequences if realised. This section summarises the feedback received on proposals to better improve the risk management of high-risk plant. Those proposals included:



Summary of submissions received

Develop new regulations that follow more consistent approaches for all types of high-risk plant

5.1	Should amusement devices and plant currently regulated under the Pressure Equipment, Cranes, and Passenger Ropeways Regulations be regulated under a single set of provisions for high-risk plant?
5.2	Should the regulations refer to "engineered recreational activities" instead of amusement devices?
5.3	Will the proposed registers of plant improve the transparency of the regulations and improve conformity in the manner outlined above?
5.4	Do you agree with the approach to the use of Standards that is proposed?
5.5	Are bungy operations better regulated as "adventure activities" under the applicable regulations, or as high-risk plant?
5.6	Should requirements for log books for amusement devices be strengthened to require better record keeping of operator training, maintenance and inspection of items of plant?
5.7	Should training requirements for amusement device operators be tightened, and, if so, how?

Question 5.1

There were 68 submitters who answered this question about bringing amusement devices and plant under a single set of provisions for high-risk plant. None identified as being from the agriculture sector, while there were eight from the construction sector, one from the forestry sector (the Forestry Industry Safety Council), one from the manufacturing sector (Oji Fibre Solutions), 11 from the engineering sector, one from the transport and freight sector (the Ports of New Zealand), 24 from the amusement and theme park sector (which included a number of private individuals), four from the energy sector and four territorial authorities.

Submitters included Civil Contractors New Zealand Inc, Engineering New Zealand, Recreation Safety Engineering, Rainbows End, AJ Hackett Bungy New Zealand, the Model Engineering Association of New Zealand and Auckland, Tauranga, Christchurch and Dunedin City Councils.

Twenty-three of the submitters supported the proposal. Twenty-seven submitted against the proposal, with 17 of those being from the model engineering sector. There were four who recorded "unsure" and 17 other that did not record a yes/no/unsure answer but provided some comment on the proposal. Two of those that were "unsure" commented that their view would depend on how the final proposals were shaped. One wanted more information about what was considered "high risk" and the other commented that it would depend on the final definition of an amusement device, referencing a recent court decision (CIV-2018-485-00819 [2019] NZHC 1996).

Of those in support of the proposal, the key theme in the comments was summarised by a submitter that wished to remain confidential but stated, "[A] clear and specific one stop shop will assist all along the supply chain". The Dunedin City Council also made a point echoed by other submitters – including those that did not support the proposal – this was that high-risk plant would still need to be differentiated by type and use:

> *"The DCC supports managing amusement devices and plant currently regulated under the Pressure Equipment, Cranes, and Passenger Ropeways Regulations within a single regulatory framework, that applies a consistent set of principles to managing risks arising from items of high-risk plant. However, as a single regulatory framework would cover a large suite of high-risk plant items with a broad range of uses, risks and associated likelihood ratings, specific provisions would still need to be differentiated according to different types of high-risk plant items and their uses".*

The differences between amusement devices and other high-risk plant were highlighted by submitters against the proposal, such as Contact Energy and Oji Fibre Solutions. Both noted that while the consequences of failure could be severe, the types of plant were too different to regulate as one.

The Model Engineering Association of New Zealand feedback was replicated by other submitters from that sector. It submitted that, "…the equipment/plant used on Hobby Club Miniature Railways does not meet the definition of high risk plant".

Question 5.2

There were 54 submitters who answered this question how best to refer to amusement devices. There were five from the construction sector, six from the engineering sector, one from the transport and freight sector (the Ports of New Zealand), 27 from the amusement and theme park sector (which included a number of private individuals), one from the energy sector (Contact Energy) and three territorial authorities.

Submitters included Civil Contractors New Zealand Inc, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Model Engineering Association of New Zealand, the New Zealand Institute of Safety Management, the Certification Board for Inspection Personnel Inc and Auckland, Christchurch and Dunedin City Council. The New Zealand Council of Trade Unions also submitted that:

> *"The justification that amusement devices are categorised separately due to their inherent level of catastrophic risk is no longer plausible considering that there has been a proliferation of high risk plant with catastrophic risk to workers and the public. We would support the redefinition".*

Thirty of the submitters (including the Council of Trade Unions) supported the proposal to refer to "engineered recreational activities", with 13 of those being from the model engineering sector who submitted with a view that this would exclude them from the regime. The Model Engineering Association of New Zealand was duplicated by all these submitters:

> *"Our Hobby Club Miniature Railways are an activity rather than an item of equipment and should be managed as such, not as a piece of equipment requiring inspection for registration".*

There was no clear theme rationale provided by other submitters in support of the proposal, beyond the fact the wording was a better fit, and may future proof the regulations.

Nine submitted against the proposal, six submitted "unsure" and a further nine submitters left comments. Of those against the proposal, four expressed a preference for the term amusement devices. IANZ was the only submitter against the proposal that recorded a substantive comment being:

> *"The term "engineered recreational activities" appears to refer to the use of the devices and facilities rather than the plant, equipment, devices or facilities themselves. It is the physical equipment that these regulations would refer to not the recreational activity being offered this is already subject to certification.*
>
> *Whether the terminology is retained or changed the most important issue is to have definitions that clearly describe the extent and limitations of the intended coverage of the regulations. A change of terminology may provide a perception of change but still requires clear definition of what's in and what's out. A possible term might be "Plant, equipment or structures intended for recreational activities"."*

The need to be clear about the scope of the regulations was a theme arising from those submitters that were "unsure" or otherwise left a comment with at least four references made. There were also two references made to land-based inflatable devices, with one submitter commenting that, "[E]ven bouncy castles (for example) can present risks to users and the public (who are often children)".

Question 5.3

There were 68 submitters who answered this question about transparency and the need to improve conformity. There were three from the forestry sector, 10 from the construction sector, two from the manufacturing sector, 10 from the engineering sector, one from the transport and freight sector (the Ports of New Zealand), 22 from the amusement and theme park sector (which included a number of private individuals), five from the energy sector and two territorial authorities.

Submitters included Civil Contractors New Zealand Inc, the Roofing Association of New Zealand, the Forestry Industry Safety Council, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Model Engineering Association of New Zealand, Genesis Energy Ltd, IANZ, the New Zealand Institute of Safety Management, and the Council of Trade Unions.

There were 26 submitters who considered that the proposed registers would improve transparency and conformity but few provided any detail as to their rationale. Mercury Energy noted that it would be a significant amount of work and also expressed concerns that, "[I]f the register is made public high-risk controversial plant could be a target of activists. There is also a question about intellectual property rights for bespoke equipment or solutions".

Of the 24 who did not support the proposal, 18 were from the model engineering sector and all submitted the Model Engineering Association of New Zealand position:

> *"All MEANZ Clubs have to have registers of their equipment/plant which is subject to audit as part of the current ADR registration process".*

Genesis Energy submitted that the link between a register and low injury rates was tenuous and that, "Given the acknowledgement that incident and injury rates indicate current design verification, inspection and registration duties are generally working, this appears to be an unduly heavy-handed approach". The Forestry Industry Safety Council also submitted against the proposal suggesting there would "…no direct benefit or reduction of risk for Forestry".

There were 12 submitters that were "unsure" of the proposal and six other that left a comment with no themes appearing in their comments. Oji Fibre Solutions submitted that:

> *"There is no basis to believe, or mechanism to ensure that owners of Pressure Equipment who are not currently complying with the regulations will comply under the proposed model. They are "invisible" to both the current and proposed models. Unless they inform the regulator that they own & operate Pressure Equipment, then the regulator will not be aware of pressure equipment under their ownership. Under the proposed regulations, once a vessel is registered, evidence of ongoing compliance to the regulator will be more visible".*

Question 5.4

There were 67 submitters who answered this question about the use of Standards. None identified as being from the agriculture sector, while there were 10 from the construction sector, two from the forestry sector, two from the manufacturing sector, seven from the engineering sector, one from the transport and freight sector (the Ports of New Zealand), one from fisheries (that wished to remain confidential), 24 from the amusement and theme park sector (which included a number of private individuals), four from the energy sector and three territorial authorities.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, the Forestry Industry Safety Council, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Off Road New Zealand, Model Engineering Association of New Zealand, IANZ, Certification Board for Inspection Personnel Inc, Contact Energy, Council of Trade Unions and Auckland, Christchurch and Dunedin City Council.

Forty-five of the submitters supported the proposed use of standards but few detailed their rationale. IANZ submitted:

> *"Limiting the acceptable standards can stifle innovation. There should be a duty on design verifiers to explicitly state which standard they have verified the design to OR explicitly state that they have verified against general safety criteria and 'good engineering practice'. In either case there must be a verification of the design assumptions as well as the basis of the verification decision".*

Of the nine submitters who did not support the proposal, five were from the model engineering sector. Three submitted that there were no relevant Standards and one submitted that the current Standards were appropriate. There were no consistent themes across the three other submitters. One submitter that wished to remain anonymous questioned the need for the approach, "…when there are already general duties to comply with standards for designers, manufacturers, suppliers, etc". The Lifting Equipment Engineers Association expressed a preference for sector-specific standards and Bureau Veritas New Zealand Pty Ltd submitted:

> *"We disagree with this approach. This allows designer and manufacturer to use any standards from any corner of the world. Those standard might not have same/equivalent safety requirements as required in New Zealand… Another issue with this approach is familiarity of a design verifier with*

> *the selected standard. Most of the design verifiers in New Zealand are well versed with American, British and Australian standards. However verifying designs against never before used standards might create some competency issues".*

There were seven submitters that were "unsure" with only two leaving a comment. One of these was about flexibility, which was also mentioned by one the six other submitters that left a comment.

Question 5.5

There were 22 submitters who answered this question about bungy operations. Submitters included a worker from the construction sector, four from the engineering sector, one from the transport and freight sector (the Ports of New Zealand), one from fisheries (that wished to remain confidential), 4 from the amusement and theme park sector (which included a number of private individuals), and one territorial authority (Christchurch City Council).

Submitters included Recreation Safety Engineering, Rhodes Engineering and Design Ltd, AJ Hackett Bungy New Zealand, Auckland Adventure Park, Off Road New Zealand, Regional Facilities Auckland, IANZ, Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management and Ruapehu Alpine Lifts Ltd.

Twelve of the submitters referenced "adventure activities" in their response but with few recording a reason as to why. Two submitters referenced "high risk plant" with the Certification Board of Inspection Personnel Inc submitting:

> *"There are significant structural, rigging, mechanical and dynamic features of a bungy operation that are a much better fit with the proposed "engineered recreational activities" terminology than "Adventure Activities". As high-risk plant, there would be formalised engineering oversight as against somewhat discretionary engineering involvement under the Adventure Activities Regulations".*

AJ Hackett Bungy New Zealand submitted:

> *"It is our view that since there is no specific ASG [Activity Safety Guide] written under the AAO [Adventure Activity Operator] regs that Bungy Jumping is not covered by Advenutre activities. Furthermore using the dynamic factors as referenced under the Australian Standard then Bungy Jumping should be covered under the regulations for High Risk Plant. For the avoidance of doubt, this should include operations that do and do not utilise machinery as part of the activity or retrieval process.*

Recreation Safety Engineering agreed with AJ Hackett Bungy New Zealand, also submitting that, "bungy operations should be regulated as high-risk plant". The New Zealand Institute of Safety Management submitted "probably both", similar to the view of IANZ which was:

> *"There should be no either/or decision. The existing adventure activities certification regime covers the operation of the bungee operation, that is the description of the activity the training of staff, record keeping etc. This does not include independent inspection or testing of critical plant, equipment, devices or facilities. There should be periodic, independent, inspection/testing of critical plant, equipment, devices and facilities e.g. anchorages, winches, bungee cords and fittings in addition to the activity certification process. This requirement could be included, as a new requirement, in the certification regulations or it could be implemented separately".*

Question 5.6

There were 49 submitters who answered this question about log book requirements. There were four from the construction sector (including two workers), three from the engineering sector, 22 from the

amusement and theme park sector (which included a number of private individuals), and two territorial authorities.

Submitters included Recreation Safety Engineering, AJ Hackett Bungy New Zealand, Mahon's Amusements Ltd, Off Road New Zealand, Model Engineering Association of New Zealand, Regional Facilities Auckland, IANZ, the Certification Board for Inspection Personnel Inc, New Zealand Institute of Safety Management, the New Zealand Arboriculture Association Inc and Ruapehu Alpine Lifts Ltd.

Twenty-four of the submitters supported the proposal with 13 of these leaving some comment. Two themes emerged, one being that record keeping supports good asset management and the other that some type of template or guidance should support the proposal. Both Recreation Safety Engineering and the Certification Board for Inspection Personnel referenced *AS 3533.2 Supplement 1—1997 - Amusement rides and devices Operation and maintenance - Logbook* as providing a suitable template.

Eighteen submitted against the proposal with all but one of these submitters being from the model engineering sector. The Model Engineering Association of New Zealand submitted that, "MEANZ have an audit system in place to ensure logbooks are maintained to a high standard within Hobby club Miniature Railways". The other submitter that recorded a "no" answer was Off Road New Zealand which submitted:

> *"There are already sections in the log book for training procedures, lists of trained operators and operating instructions. While better record keeping may help post incident in proving or disproving the competence of the operator and the staff in these areas it is more important that these things are actually done in the first place. Inspection for certification should be structured around the expected life span of critical components in large plant to pick up on poor operators".*

There were two submitters that recorded "unsure" with Sentinel Inspection Services Ltd submitting, "[F]or small one man operations this isn't necessary. Larger amusement operators should be following these practices now". Five submitters left comments, four of them were from the amusement and theme parks sector and all expressed some concern over the potential compliance costs. The other, IANZ, submitted:

> *"Logbooks are a form of self-declaration and therefore are only as useful as the motivation of the people who fill them in. Any logbook entry by an operator related to inspection or testing would be limited to the date when inspections or tests took place. It is unreasonable to expect operators to have the expertise to inspect/test their own equipment and facilities AND testing or inspection by operators would not be independent or impartial".*

Question 5.7

There were 46 submitters who answered this question about training for amusement device operators. There were four from the construction sector (including two workers), three from the engineering sector, one from the transport and freight sector (the Ports of New Zealand), 28 from the amusement and theme park sector (which included a number of private individuals), and three territorial authorities.

Submitters included Recreation Safety Engineering, EHL Group Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Mahon's Amusements Ltd, Off Road New Zealand, Model Engineering Association of New Zealand, IANZ, and Certification Board for Inspection Personnel Inc.

Nineteen submitters support the proposal with little real consistency in the feedback as to their rationale. There was mention of licensing of operators and the development of a qualification and/or competency framework, and concern about generic training being inadequate "given the variability of the industry activities".

There were four submitters that recorded "unsure" and six that otherwise left a comment. They key theme from these submitters was about the variability of the sector. One submitter – Off Road New Zealand - who recorded "unsure" submitted:

"Anything implemented would need to be very generic in nature unless there are qualified training standards that achieve this, which is impossible given the widely varied nature of amusement devices. This is also already covered under existing requirements to a certain extent. This would be another reason to move some types of amusement devices or activities into the adventure tourism or similar as CPEng are not in a position nor possibly are they trained to audit this side of the business where as companies that specialise in outdoor or adventure type audit processes are. It is becoming increasingly difficult to find CPEng that want to be involved in AD Certification over other more lucrative work".

All seventeen submitters against the proposal were from the model engineering sector, with the Model Engineering Associations of New Zealand submission being replicated. It submitted, "[N]ot for the level of risk or complexity of operation associated with a Hobby Club Miniature Railway".

Establish a central register of designs for specified types of plant

5.8	Should there be a new central register of plant designs, maintained by WorkSafe or a delegated agency?
5.9	What types of plant should be included (based on, but not limited to, the list in ***Annex One***), with attention to the inclusion of pressure piping, cylinders, refrigeration systems, model engineering, heritage boilers and new types of plant discussed at p 92?
5.10	What standards should apply, and what regard should be had, to seismic performance when registering designs, as distinct from individual items of plant?
5.11	Is an "alteration that may affect health or safety" an appropriate threshold for requiring alterations of designs to be verified/re-registered?
5.12	What threshold(s) should apply to the registration of designs of heating/cooling equipment?
5.13	Should designs of model engineering and/or (full scale) heritage boilers be required to be registered?
5.14	Should designs registered on Australian state registers be recognised in New Zealand?
5.15	Would you expect benefits from alignment and interoperability with the Australian state registers?

Question 5.8

There were 75 submitters who answered this question about a central register of plant designs. There was one private individual from the agricultural sector, two from the forestry sector, 12 from the construction sector, two from the manufacturing sector, nine from the engineering sector, two from the transport and freight sector (including the Ports of New Zealand), one from fisheries (that wished to remain confidential), 19 from the amusement and theme park sector (which included a number of private individuals), five from the energy sector and two territorial authorities.

Submitters included the Forestry Industry Safety Council, Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, the Roofing Association of New Zealand, Oji Fibre Solutions, Engineering New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Mahon's Amusements Ltd, Genesis Energy Ltd, IANZ, the Meat Industry Association, Ski Area Association New Zealand, along with the Council of Trade Unions and E tū Union.

Thirty-nine of the submitters supported the proposal to establish a central register of plant design, with at least three identifying that there would be several challenges to how it was established and maintained. Engineering New Zealand submitted:

> *"In principle, we agree with MBIE's proposal, although consider there are several challenges to be addressed to ensure successful implementation of the proposal. Further clarification is needed on who will be able to access the register, who will own/be able to access the intellectual property of the plant and how administration, maintenance and compliance of the register will operate".*

The potential for challenges to establishment and maintenance were also referenced in some way by the 10 submitters that recorded "unsure" and at least two other submitters that provided a comment. There were references made to the potential costs outweighing the benefits, and concerns about intellectual property rights. The Ski Area Association New Zealand was concerned about the availability of qualified and competent people to verify designs. This was echoed by Dopplemayr Lifts NZ Ltd which submitted:

> *"…we feel the current Design Verification system is ineffective. There is only one person the country who is qualified to complete this, and he is nearing retirement. This process only has a very narrow scope only looking at ropeline calculations, and basic requirements and does not consider any of the drive or control systems, or machinery safety measures. Currently this system is only being used for manufacturers who do not have an exemption or individuals who are relocating a ropeway without the support of a manufacturer. As a result, ropeways commissioned under this system are often at a lower standard than the manufacturers. We understand there needs to be an avenue for others compete in an open market, however we are light years apart in our approach".*

Of those in support, six referenced WorkSafe as the agency best placeed to manage the register. One submitter considered that it could be run by the engineering sector, another that the verification process could be done via peer review.

Fourteen submitted "no" against the proposal, with half of those being from the model engineering sector. Of the other submitters, the key overarching theme was uncertainty about the benefits when considered against the cost. Although it did not record a yes/no/unsure answer, there was concern from the Meat Industry Association about aged plant, and whether it would be possible to have it design verified. There was similar concern expressed about bespoke plant. Oji Fibre Solutions submitted that it:

> *"…sees little value in the creation of a central register for Pressure Equipment. The benefit of reduced cost for serial equipment is minor as the majority of Pressure Equipment is of bespoke design. The cost to operate the register equipment (based upon the Australian costs presented in the discussion paper) is grossly higher than the actual cost of this activity which should be no more than the cost of lodging a motor vehicle Warrant of Fitness on the NZTA* [New Zealand Transport Authority] *system".*

Question 5.9

There were 61 submitters who answered this question about what type of plant would be included on the proposed register. There was one from the forestry sector (the Forestry Industry Safety Council), 12 from the construction sector, three from the manufacturing sector, eight from the engineering sector, one from the transport and freight sector (the Ports of New Zealand), two from fisheries, 20 from the amusement and theme park sector (which included a number of private individuals), three from the energy sector and two territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, the Roofing Association of New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, New Zealand Fishing Industry Health and Safety Forum, Rainbows End, AJ Hackett Bungy New Zealand, Smile Inflatables, Genesis Energy, Mercury Energy, Contact Energy, IANZ, the Meat Industry

Association, Ski Area Association New Zealand, Certification Board for Inspection Personnel Inc and E tū Union.

Sixteen of the submitters were from the model engineering sector, and all but three of them submitted against hobby club railways being listed as high risk plant. Two from this sector listed, Heritage Steam Traction engines, Steam Rollers, Steam Wagons, Portable Boilers, and Stationary Boilers. One submitter from the sector referenced the list in annex in the Discussion Paper. The annex was also referenced by the New Zealand Institute of Safety Management and two others (making four references in total).

Two submitters from the amusement and theme parks sector referenced the Australian Standard *AS 3533.1-2009 Amusement rides and devices - Design and construction* as setting out the type of plant that should be design registered. Relevant to this sector, Tauranga City Council made references to inflatable devices and submitted they should be captured.

There were a range of sector-specific lists provided that can be considered by MBIE and WorkSafe. Cranes and other lifting equipment and workboxes were specifically referenced by a range of submitters from different sectors including the construction and manufacturing sector and, for example, the Ports of New Zealand which submitted:

> *"The Port Industry uses a variety of large scale heavy lifting and moving plant including Quay (Ship to Shore) Cranes, Container Straddle Carriers, Reach Stackers and Hoists. These currently don't sit on a central register, and are considered High Risk Plant within the industry. We believe that these pieces of plant should be centrally registered, with a view to standardising how each operator inspects and maintains this fleet".*

The Meat Industry Association submitted a view contrary to that above that, "[R]ise/Fall platforms used in meat processing should be exempt from the registration requirements. These are not considered a high risk item, as these are fixed equipment used solely within the meat industry in controlled environments". There was also a mixed view expressed on pressure equipment, especially bespoke pressure equipment (by those outside the model engineering sector). Some submitted for its inclusion, others against it.

Question 5.10

There were 49 submitters who answered this question about the standards of seismic performance that should apply to plant. There was one from the forestry sector (the Forestry Industry Safety Council), five from the construction sector, three from the manufacturing sector, nine from the engineering sector, one from fisheries (that wished to remain confidential), 17 from the amusement and theme park sector (which included a number of private individuals), three from the energy sector and one territorial authority (Auckland Council)

Submitters included Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Engineering New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Model Engineering Association of New Zealand, IANZ, the Meat Industry Association, Certification Board for Inspection Personnel Inc, and the Council of Trade Unions.

The Forestry Industry Safety Council submitted that seismic performance is not relevant to forestry plant, mentioning roads and bridges but possibly not considering fixed plant. All but one of the 14 submitters from the model engineering sector referenced structures on club sites being regulated under the Building Act 2004. The other model engineering submitter simply stated that seismicity was, "[A]lready covered under existing regulations".

A number of submitters referenced the importance of seismic design and the need for expert input. And, five engineers did provide input, along with seven others who referenced individually or in combination the following practice note and New Zealand Standards:

- Engineering New Zealand *Practice Note 19: Seismic Resistance of Pressure Equipment (2016)*
- New Zealand Standard *1170.5 Structural design actions - Part 5: Earthquake actions - New Zealand*
- New Zealand Standard *4219:2009 Seismic performance of engineering systems in buildings*

Rhodes Engineering and Design Ltd also referenced "ASME VIII for pressure vessels, B31.3 for pressure piping", being standards set by the American Society of Mechanical Engineers (ASME).

Question 5.11

There were 78 submitters who answered this question about what alterations to a plant might require its re-registration. There was one private individual from the agricultural sector, one submitter from the forestry sector (the Forestry Industry Safety Council), 12 from the construction sector, three from the manufacturing sector, nine from the engineering sector, one from transport and freight (the Ports of New Zealand), one from fisheries (that wished to remain confidential), 24 from the amusement and theme park sector (which included a number of private individuals), five from the energy sector and two territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Off Road New Zealand, Methanex, IANZ, the Meat Industry Association, Certification Board for Inspection Personnel Inc and the Council of Trade Unions.

Twenty-five of the submitters supported the proposed definition, with 11 leaving a comment. Two of these submitters, including the New Zealand Institute for Safety Management suggested the definition could be expand to include any changes made to plant. Three of the submitters in support of the definition questioned who would apply the definition – this question was also posed by one of the six submitters that selected "unsure" and one of the 26 submitters who selected "no". The IANZ submission is broadly representative of the views:

> *"The question is who should make the decision. An owner/controller may not have the technical competence to make these decisions. Also an owner/controller has vested interests (particularly financial interests) that may bias their decisions. There should be a requirement for an owner/controller to seek guidance from an independent, competent, person before making any decision on the alteration or repair of high-risk plant".*

A key theme arising from the submissions was that the proposed definition was too subjective (eight submitters). Off Road New Zealand submitted:

> *"This is far too open to interpretation and is potentially difficult for a business to defend retrospectively in the event of an accident or injury. A definition or class rule would be better. Again, a poorly completed alteration to a large device such as a Ferris wheel or roller coaster can have much bigger and catastrophic consequences than a repair to a small or individual single rider type device".*

Six submitters, in addition to Off Road New Zealand, (making seven in total) suggested that a threshold should be applied to the definition.

A number of submitters suggested alternative definitions; many of these were sector-specific. The model engineering sector's feedback was also sector-specific. There were 19 submitters from this sector and only one supported the proposed definition (providing no rationale). Ten of the submitters stated that, "model engineering is an activity".

Question 5.12

There were 29 submitters who answered this question about the thresholds that should apply to the registration of heating and cooling plant. There were 2 from the construction sector, three from the manufacturing sector, nine from the engineering sector, one from fisheries (that wished to remain confidential), 13 from the amusement and theme park sector (all bar one of which represents the model engineering sector), and one from the energy sector (Genesis Energy).

Submitters included Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, the Meat Industry Association, Certification Board for Inspection Personnel Inc and the New Zealand Institute of Safety Management.

The responses included 13 submissions from the model engineering sector, all replicating the submission of the Model Engineering Association of New Zealand that, "The current 1 litre threshold needs to be maintained, otherwise the regulations will cover toy pressure vessels purchased locally or offshore i.e; commercial toy brands such as Mamod, Hornby, Aster etc".

Excluding the model engineering sector, there were two submitters against the registration of designs, being Genesis Energy and Oji Fibre Solutions. Oji Fibre Solutions did, however, submit that if the proposal were to proceed, that the threshold should be based on the hazard level. Hazard level was referenced by five submitters in total, two being engineers. There were also:

- three specific references to registration in reference to Australia / New Zealand Standards, with two specific references to the Australian Standard *4343:2014 Pressure equipment - Hazard levels,* by Rhodes Engineering and Design Ltd and Bureau Veritas New Zealand Pty Ltd
- two references to carbon dioxide, including by the New Zealand Institute of Safety Management and another submitter supplying safety equipment
- two references to "stored energy", by Recreation Safety Engineering and the Certification Board for Inspection Personnel Inc.

Question 5.13

There were 44 submitters who answered this question about registering the designs of model and full scale heritage boilers. There were four from the construction sector (with two identifying as workers), five from the engineering sector, one from fisheries (that wished to remain confidential), 22 from the amusement and theme park sector (which were predominantly representing model engineers), and two territorial authorities.

Submitters included Recreation Safety Engineering, Auckland Adventure Park, IANZ, Certification Board for Inspection Personnel Inc and the New Zealand Institute of Safety Management.

Of the model engineering sector, there were 19 submitters. Fourteen of those submitted consistently with the Model Engineering Association of New Zealand that:

> *"Miniature boilers should be registered but by the Model Engineering Clubs as is the current practice and stipulated by the AMBSC* [Australian Miniature Boiler Safety Committee] *Boiler Codes listed within the PECPR regulations* [Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999] *for the use by Model Engineering Clubs".*

Of interest, in response to question 5.14, one submitter expressed a different view about the AMBSC, stating that, "[T]he AMBSC codes have become deficient in recent years".

There were five from the model engineering sector against the registration – with two submitting, "No, there is little point. For traction engine boilers the designs are common and well known and the areas of concern in these boilers is well understood".

Of the 25 submitters outside the model engineering sector, 14 provided comment. Five comments referenced the difference between model engineering boilers and heritage boilers, with INAZ submitting that the requirements for these items should not be combined. Three submitters noted that there may be challenges in obtaining the designs of heritage boilers while two submitted that they should be treated like any other boiler.

Two private individuals from the engineering sector submitted that model engineering below a nominal pressure and volume should be exempt from registration.

Question 5.14

There were 64 submitters who answered this question. There was one from the forestry sector (the Forestry Industry Safety Council), 12 from the construction sector, three from the manufacturing sector, nine from the engineering sector, one from fisheries (that wished to remain confidential), 11 from the amusement and theme park sector, six from the energy sector and two territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Engineering New Zealand, Recreation Safety Engineering, Rainbows End, AJ Hackett Bungy New Zealand, Mahon's Amusement's Ltd, Off Road New Zealand, Genesis, Mercury and Contact Energy, Methanex, IANZ, the Meat Industry Association, Certification Board for Inspection Personnel Inc and the Council of Trade Unions.

Thirty-nine submitters supported the proposal that designs registered in Australia also be recognised in New Zealand, 18 left a comment – largely these confirmed support but there were also five references to the need to rely upon some sort of agreed standard. The need to rely on Standards or otherwise have the Australian registration evaluated and confirmed as appropriate was submitted by another six submitters that did not record a yes/no/unsure answer but otherwise left a comment. It was referenced, in total by 11 submitters and was a key theme. A number of submitters (seven) also noted that the Australian registers varied across the states and territories.

There were references made to the New Zealand environment being different to that in Australia, and the need for the consideration of seismicity. And, Bureau Veritas New Zealand Pty Ltd raised concerns about the design verification process in Australia submitting:

> *"Competency requirements of design verifiers in New Zealand are higher than Australian state design verifiers. For example, in New Zealand a design verifier needs to be registered as 'CPEng' and 'Design Verifier' with Engineering New Zealand. In Australia a competent person can perform design verification. No registration with professional body is a must (except Queensland)…The current NZ model provides recognition for Overseas Recognised Inspection Bodies for Fabrication and Design Verification services. This provides a quality process to assess prospective bodies to perform these functions in line with current NZ regulations. Currently, this does not provide allowance for all Australian inspection bodies and design verifiers".*

Question 5.15

There were 55 submitters who answered this question of the benefits of alignment and interoperability with Australian registers. There was one from the forestry sector (the Forestry Industry Safety Council), 10 from the construction sector, two from the manufacturing sector, five from the engineering sector, 12 from the amusement and theme park sector, six from the energy sector and three territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rainbows End, AJ Hackett Bungy New Zealand, Off Road New Zealand, Genesis, Mercury and Contact Energy, Methanex, IANZ, the Meat Industry Association, the Certification Board for Inspection Personnel Inc and the New Zealand Institute of Safety Management.

Thirty-eight submitters recorded that they would expect benefits from interoperability with the Australian registers, with 23 of these leaving some comment. The key examples of benefits – referenced by at least two submitters – included the following:

- commercial
- increased inter-operability
- reduced effort
- reduced cost.

There were nine submitters that recorded "unsure", with only one – Cardrona Alpine Resort – leaving a comment expressing concern about the Australian inspection sign-off process. Genesis Energy and the Forestry Industry Safety Council did not record yes/no/unsure answers, but neither are supportive of the registration proposal. The safety council commented:

> *"We are not enthusiastic about this. On the one hand MBIE* [the Ministry of Business, Innovation and Employment] *appears to be keen on many aspects of AMR* [the Australian Model Regulations] *but then, in a forestry context at least, must be prepared to accept that the Australian regulator has not included forestry plant within its high-risk schedule".*

Of the eight submitters that recorded no – no expected benefits – only three left a substantive comment. One was from the model engineering sector and commented that in Australia miniature boilers are not considered high-risk plant. An engineering sector representative re-iterated comments made earlier about the states and territories not aligning between themselves. Oji Fibre Solutions submitted that, "OjiFS do not see any benefit to itself and only minimal benefit for others from alignment between Australia and New Zealand.

Establish a central register of individual items of high-risk plant

5.16	Do you support the introduction of a centrally held register of individual items of high-risk plant currently subject to the Pressure Equipment, Cranes, and Passenger Ropeways Regulations?
5.17	What types of plant should be required to be registered (based on, but not limited to, the list in ***Annex Two***), with attention to the inclusion of pressure piping, refrigeration systems, model engineering, heritage boilers and new types of plant discussed at p 92?
5.18	Should forestry plant, like that recommended to be inspected by CPEng under forestry codes or guidance, be required to be registered?
5.19	What scale or risk categories of pressure equipment should be required to be registered?
5.20	What threshold(s) should apply to the registration of individual items of heating/cooling equipment?
5.21	Should individual installations of model engineering and/or (full scale) heritage boilers be required to be registered?
5.22	Do you agree with the proposed requirements for registration?
5.23	Should registration be for a 5-year period for all items of plant or for a lesser period for different items of plant (refer to inspection requirements below)?

5.24	What regard should be had, and what standards should apply to the seismic performance of individual items of plant?
5.25	Should specified types of existing plant be required to be assessed for their "remaining design life" and/or should safety critical aspects of their design be reassessed as a precondition of their registration as items of plant?
5.26	Should other categories of existing items of plant be exempt from the requirement to be design registered before registration as items of plant?

Question 5.16

There were 75 submitters who answered this question about a central register of high-risk plant. This included one from the agriculture sector (a private business), one from the forestry sector (the Forestry Industry Safety Council), 11 from the construction sector, two from the manufacturing sector, nine from the engineering sector (predominantly private individuals), two from transport and freight, two from the fishing sector (including a worker), 22 from the amusement and theme park sector (predominantly from the model engineering sector), six from the energy sector and two territorial authorities.

Submitters included two roofing associations, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Contact Energy, Methanex, Rainbows End, AJ Hackett Bungy New Zealand, Model Engineering Association of New Zealand, IANZ, Certification Board for Inspection Personnel Inc, New Zealand Arboriculture Association Inc and the Council of Trade Unions.

There were 46 submitters that supported the proposal, with three expressing strong support.

Two submitters noted that while supportive, intellectual property matters would need to be addressed. Three submitters noted that it would help build an understanding of this type of plant that might need inspection. The New Zealand Metal Roofing Association's submission is broadly indicative of these comments:

> *"We support the notion of a central register if it assists with both the Regulator and employers being able to identify which plant needs what level of control. Just having a register alone will achieve nothing. Specification for inspections, repairs and additions is also supported".*

Two of the three submitters that were "unsure" of the proposal expressed concern about the administration of the register and the potential cost. The other submitter expressed a concern about intellectual property – a key theme running through the responses.

There were 24 submitters against the proposal, half of them (12 submitters) were from the model engineering sector and submitted consistently with the Model Engineering Association of New Zealand:

> *"Miniature boilers covered by AMBSC* [Australian Miniature Boiler Safety Committee] *codes 1 and 2 are not defined as high risk under the model Australian regulations. These codes were recognised in September 1999 (Safety Lines, Engineering Safety Newsletter, Occupational Safety and Health) under regulation 17 of the PECPR regulations* [Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999]*".*

Of the other 12 submitters against the proposal, five were from the energy sector – one being a consultant engineer. This sector was strong in its opposition to the register, with Contact Energy submitting:

> *"We do not believe this has any benefit to the industry, only adds cost. Likely only useful to regulator to reduce workload to find design status and as tool to enable prosecutions. It is also unclear what information will need to be held to ensure that the design is registered. Will this be all*

design drawings and calculations, if so who will pay to keep this information? This cost will be substantially higher than the cost of registering the design".

Question 5.17

There were 52 submitters who answered this question about the type of plant that should be registered. This included one from the forestry sector (the Forestry Industry Safety Council), eight from the construction sector, one from the manufacturing (Oji Fibre Solutions), six from the engineering sector (predominantly private individuals), one from transport and freight (the Ports of New Zealand), one from the fishing sector (that wished to remain confidential), 22 from the amusement and theme park sector (predominately from the model engineering sector), three from the energy sector and two territorial authorities.

Submitters included the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Rainbows End, AJ Hackett Bungy New Zealand, Model Engineering Association of New Zealand, Genesis, Mercury and Contact Energy, IANZ, Certification Board for Inspection Personnel Inc, New Zealand Arboriculture Association Inc, the Council of Trade Unions and a member of E tū Union.

Sixteen of the comments received were from the model engineering sector. Four submitters from this sector referenced Heritage Steam Traction engines, Steam Rollers, Steam Wagons, Portable Boilers and Stationary Boilers as high-risk plant that should be regulated. The other 12 submitted consistently with the Model Engineering Association of New Zealand:

"Model Engineering installations, i.e; Hobby Club Miniature Railways are an activity and not an item of plant and cannot be registered as such".

Of the 36 submitters that were not identified as from the model engineering sector, five submitters referred back to their responses about design registration. Three of these submitters provided detailed lists in response to question 5.9. They included the Certification Board for Inspection Personnel Inc and Bureau Veritas New Zealand Pty Ltd. The other two made specific reference to pressure piping. There were also:

- four references to the annexes in the Discussion Paper
- two references to reliance on a risk threshold
- two references to the Australian Model Regulations.

There were three submitters that re-iterated their opposition to registration, and a number of submitters that made sector-specific proposals; some of these were in relation to lifting and hoist equipment. Doppelmayr Lifts NZ Ltd submitted:

"We are in support of the central registration of passenger ropeways, given the low number of passenger ropeways in New Zealand, we would see this as a small task, and small costs associated with this. As there is on average only 1 new ropeway per year, we would see individual registrations as appropriate. This would also improve the transfer of information between equipment inspectors".

Question 5.18

There were 23 submitters who answered this question about the registration of forestry plant. This included one from the forestry sector (the Forestry Industry Safety Council), seven from the construction sector, two from the engineering sector (including one private individual), one from the amusement and theme park sector (Sentinel Inspection Services Ltd), and a territorial authority (Christchurch City Council).

Submitters included Scaffolding, Access and Rigging New Zealand, Construction Health and Safety New Zealand, IANZ, Certification Board for Inspection Personnel Inc, New Zealand Arboriculture Association Inc, the NZISM and the Council of Trade Unions.

All of the submitters that responded to this question, with the exception of the Forestry Industry Safety Council, responded with "yes". Three submitters – Recreation Safety Engineering, Bureau Veritas New Zealand Pty Ltd and the Certification Board for Inspection Personnel Inc all made specific mention of cable yarders. The certification board submitted:

> *"Yes, with the scope of inspection of cable yarders extended to include the whole machine (cf. just the tower at present) and including machines used for steep slope harvesting. Note that cable yarder towers are also currently inspected by Yarder Tower Inspectors, who hold Unit Standard 19722 and a competence certificate issued by the Forest Industries Contractors' Association (FICA)".*

The Forestry Industry Safety Council submitted:

> *"The consultation document talks of high-risk plant* [that] *can have "catastrophic consequences" [p.87]. In a risk management sense, Catastrophic consequences are generally accepted as being those with the highest level of Consequence (multiple fatalities and serious injuries) where there is a more than minor Likelihood of occurrence.*
>
> *In the context of the 'catastrophic consequence' test we believe the forestry industry currently has no plant (fixed or mobile) that should be defined as high-risk plant and thus subject to the proposed design and inspection regulation"* [their own emphasis].

Question 5.19

There were 20 submitters who answered this question about the scale or risk categories of pressure equipment that should be required to be registered. This included four from the construction sector, two from the manufacturing sector, four from the engineering sector (predominantly private individuals), one from transport and freight (the Ports of New Zealand), one from the fishing sector (that wished to remain confidential), 18 from the amusement and theme park sector (predominantly from the model engineering sector and one worker), and three from the energy sector.

Submitters included the Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Model Engineering Association of New Zealand, Genesis, Mercury and Contact Energy, IANZ, and the New Zealand Institute of Safety Management.

Of the 20 submitters that responded to this question, four reiterated their opposition to the registration proposals. Contact Energy submitted:

> *"The discussion paper does not present definitive evidence of the current regulatory framework resulting in an increased and unacceptable risk of significant harm caused by accidents involving pressure equipment or boilers. It is difficult, based on the information in the discussion paper, to determine the causality of any Pressure Equipment incidents and hence how the changes to regulations will reduce the likelihood of a reoccurrence. Based on Contact's experience with pressure vessel management it is felt that the current PECPR* [Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999] *regime is generally operating successfully. We also note the general obligation on all PCBUs* [Persons Conducting a Business or Undertaking] *under the Health & Safety at Work Act to reduce risk so far as is reasonably practicable. As an operator of multiple plants with pressure equipment and boilers we are not aware of any ambiguity or lack of detail in the current Regulatory framework which increases risk and requires an enhanced regulatory footprint."*

Oji Fibre Solutions also submitted again the proposal but commented, that, "[I]n the event that such a register is created, OjiFS believes it should be limited to high risk equipment categorised as hazard level 'A or B' in Section 2.1 of *AS4343:2014 (Pressure Equipment – hazard levels)".* There were seven references to the Australian Standard in total.

IANZ submitted that, "[A]ll items that warrant regular statutory inspections should be registered. This prevents any potential confusion regarding whether or not an item needs to be registered and/or inspected". There was comment about a risk threshold and another about low verses high pressure. Civil Contractors New Zealand Inc inquired, "[H]ow do hyperbaric chambers and locks tie in here. These are specialised equipment and used in diving and on some Tunnel Boring Machines and Micro TBMs".

Question 5.20

There were 13 submitters who answered this question about the thresholds that should apply to the registration of heating and cooling equipment. This included three from the construction sector, two from the manufacturing, three from the engineering sector (two being private individuals), and two from the energy sector. Submitters included Construction Health and Safety New Zealand, Oji Fibre Solutions, Genesis and Contact Energy, and the New Zealand Institute of Safety Management.

Two submitters – Genesis Energy and another submitter wishing to remain confidential – reiterated that they did not support the registration proposal. Otherwise there were:

- three references back to question 5.19
- three references to a risk or hazard level approach with one reference to the Australian Standard
- two references to temperature thresholds.

Question 5.21

There were 39 submitters who answered this question about the registration or model engineering and heritage boilers. This included three from the construction sector (including one worker), one from the transport and freight sector (the Ports of New Zealand), five from the engineering sector (predominantly private individuals), one from the fishing sector (that wished to remain confidential), 21 from the amusement and theme park sector (predominantly from the model engineering sector), and two territorial authorities.

Submitters included Recreation Safety Engineering, Auckland Adventure Park, Model Engineering Association of New Zealand, IANZ, the Certification Board for Inspection Personnel Inc, and the New Zealand Institute of Safety Management.

Twenty-four submitters responded "yes" to this question. Sixteen were from the model engineering sector with most submitting consistently with the Model Engineer Association of New Zealand which submitted, "[*I]f defined as an activity not as an item of plant*". There were only two substantive comments from other "yes" submitters; both recommended consultation to establish a minimum energy threshold.

There were four submitters against this proposal, with only one commented that a central design register was not supported. Of the four "under" submitters and others that recorded a comment, three referred back to earlier responses, and two recorded comments about the approach being dependent on the level of risk.

Question 5.22

There were 62 submitters who answered this question about the proposed requirements for registration. This included one from the agriculture sector (a private business), one from the forestry sector (the Forestry Industry Safety Council), 11 from the construction sector, two from the manufacturing, seven from the engineering sector (predominantly private individuals), two from transport and freight, one from the fishing sector (that wished to remain confidential), 23 from the amusement and theme park sector (predominantly from the model engineering sector), three from the energy sector and two territorial authorities.

Submitters included the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering and Rhodes

Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Model Engineering Association of New Zealand, Genesis, Mercury and Contact Energy, IANZ, Certification Board for Inspection Personnel Inc, New Zealand Arboriculture Association Inc and the Council of Trade Unions.

Forty-four of the submitters responded "yes" in support of the proposed registration requirements. Fourteen of these submitters were from the model engineering sector, and all but two submitted consistently with the Model Engineering Association of New Zealand that, "[I]f defined as an activity and managed as per the current MEANZ safety audit process".

Of the 30 submitters in support, outside the model engineering sector, there were only two substantive comments. These discussed the improved access to historical records and evidence of compliance to standards this would enable and the need for a robust risk management system, to ensure transparency and accuracy.

The six submitters that responded "no" were against the proposed register. One of these submitters, an engineering consultant said:

> *"I work in the power generation pressure equipment industry. Almost all of our work is bespoke site specific equipment. Currently there is a clear requirement for the owner to hold relevant information, and they do. Where the plant controller is aware of the regulations they comply. Where they are ignorant they may not, changing the regulations does make the controller un-ignorant. They will not provide information to a registers of plant. As above our clients do hold plant information. The designer, DV and plant inspections also have copies. A registers of plant is not going to add value and is only an extra cost burden".*

There were three submitters that were "unsure" – one being uncertain about the proposals for a register - and one other that left a comment about intellectual property.

Question 5.23

There were 69 submitters who answered this question about a possible registration timeframe for plant. This included one from the forestry sector (the Forestry Industry Safety Council), 11 from the construction sector, two from the manufacturing, eight from the engineering sector (predominantly private individuals), two from transport and freight, one from the fishing sector (that wished to remain confidential), 25 from the amusement and theme park sector, four from the energy sector and two territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Mahon's Amusement's Ltd, the Model Engineering Association of New Zealand, Genesis and Mercury Energy, the Meat Industry Associations, IANZ, the Certification Board for Inspection Personnel Inc, New Zealand Arboriculture Association Inc and E tū Union.

There was a wide variety of responses to this question:

- one submitter referenced a change in ownership
- two suggesting certification could be linked with registration
- three submitters did not support registration
- four submitters in support of an annual cycle
- four submitters in support of a two-yearly cycle
- four submitters suggesting that registration should be indefinite
- 12 submitters in support of a five-year cycle
- 14 submitters that could be described as supporting a risk-based approach.

Six submitters were unsure, with Off Road New Zealand submitting concern over the availability of inspectors. This echoed feedback in the consultation meetings and in response to other questions, about the availability of qualified and competent inspectors.

Question 5.24

There were 31 submitters who answered this question about the seismic performance of individual items of plant. This included three from the construction sector, two from the manufacturing sector, seven from the engineering sector, one from transport and freight (the Ports of New Zealand), one from the fishing sector (that wished to remain confidential), six from the amusement and theme park sector, three from the energy sector and two territorial authorities.

Submitters included Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Off Road New Zealand, Genesis, Contact and Mercury Energy, Certification Board for Inspection Personnel Inc, Ski Area Association of New Zealand, and the New Zealand Institute of Safety Management.

Five submitters referred back to question 5.10. At 5.10 and here, the focus of the responses (18 of 31) was on the use of Engineering New Zealand Practice Note 19 or the relevant standard. New Zealand Standard *1170.5:2004 Structural design actions - Part 5: Earthquake actions - New Zealand* was frequently mentioned. Three other submitters also referenced the approach could be aligned with the New Zealand Building Code.

Question 5.25

There were 53 submitters who answered this question about the pre-conditions for the registration of existing plant. This included one from the forestry sector (the Forestry Industry Safety Council), 10 from the construction sector, two from the manufacturing, eight from the engineering sector, two from transport and freight, nine from the amusement and theme park sector, four from the energy sector and two territorial authorities.

Submitters included the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Regional Facilities Auckland, Genesis, Contact and Mercury Energy, Methanex, the Meat Industry Association, IANZ, the Certification Board for Inspection Personnel Inc, the New Zealand Arboriculture Association Inc and the Council of Trade Unions.

The question was in two parts, asking if:

1. specified types of existing plant should be required to be assessed for their “remaining design life”?

2. should safety critical aspects of the plant design be reassessed as a precondition of their registration as items of plant?

Twenty-seven submitters responded “yes”, with few substantive comments in addition. One noted it would be costly but create consistency. Another commented on the value it would have for existing/aged plant. Ruapaheu Alpine Lifts Ltd submitting:

> *“These are where some of our key risks will lie and for a long time, these devices have probably been operated under some vague (grandfather clauses)”.*

There were six submitters that recorded “no”, half (three submitters) being from the model engineering sector. Two of these submitted that traction engines should be exempt. This statement was also made by two submitters that did not record a yes/no/unsure answer. The Meat Industry Association expressed a

concern about the implementation of the proposal and the perverse incentives for certifiers "…to issue regular re-assessment or simply not issue certification in favour to seeking design of new plant".

Of the other submitters not recording yes/no/ unsure answers, three commented on design life; they all noted in some way that the use, maintenance and modification of plant might impact on its design life. These submitters included Rainbows End and Contact Energy.

Question 5.26

There were 37 submitters that answered this question about categories of plant that should be exempt from the requirement to be design registered. This included one from the forestry sector (the Forestry Industry Safety Council), seven from the construction sector, two from the manufacturing sector, five from the engineering sector, eight from the amusement and theme park sector, two from the energy sector and one territorial authority (Christchurch City Council).

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Genesis and Mercury Energy, the Meat Industry Associations, IANZ, and the New Zealand Institute of Safety Management.

Of the 15 submitters recording "yes" that there should be some exemptions, five made reference to heritage boilers and other model or heritage equipment. References were also made to:

- land borne inflatable devices, by Recreation Safety Engineering
- waterslides, by Totara Springs Christian Centre
- passenger ropeways, by a submitter requesting confidentiality
- forestry yarders and winch assisted machines by the Forestry Industry Safety Council.

There were 12 submitters that recorded "no", against the need for exemptions but with few substantive comments as to the submitter's rationale. IANZ submitted that, "[S]afety critical aspects of designs should be assessed as a condition of initial registration and reassessed as a condition of re-registration".

There were 10 submitters that recorded "unsure"; one not supporting the proposals for a register. This was also the comment of two other submitters. Otherwise, there were two submitters who recorded that the question was not clear to them.

Retain current accreditation requirements for inspection of individual items of plant

5.27	Should existing accreditation requirements for inspection bodies and inspection personnel be retained for equipment currently under the Pressure Equipment, Cranes, and Passenger Ropeways Regulations?
5.28	Should the current requirement for a CPEng (or equivalent) to certify and inspect amusement devices be retained?
5.29	Should inspection bodies and personnel be able to maintain the register, based on their inspection work?

Question 5.27

There were 65 submitters who answered this question about accreditation requirements for inspection bodies and personnel. This included eight from the construction sector, two from the manufacturing sector, 10 from the engineering sector, one from transport and freight (the Ports of New Zealand), one from the fishing sector (that wished to remain confidential), 20 from the amusement and theme park sector

(predominantly from the model engineering sector), six from the energy sector and two territorial authorities.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, the Model Engineering Association of New Zealand, Genesis, Contact and Mercury Energy, Methanex and the Meat Industry Associations, IANZ, the Certification Board for Inspection Personnel Inc, Bureau Veritas New Zealand Pty Ltd, and the New Zealand Arboriculture Association Inc.

Fifty-one of the submitters on this question supported the current accreditation requirements; 23 commented. The key theme from the comments was that the current system is working well. A submitter requesting confidentiality added that given the size of the New Zealand market, international inspectors should also be recognised while Cardrona Alpine Resort submitted that industry-specific knowledge was still required.

There were eight submitters that were against the status quo. Two of those submitted that the system should be reviewed in response to the new regulations. Two other submitters expressed concern about the capacity of the sector – this was also a concern of the New Zealand Institute of Safety Management which did not select a yes/no/unsure response.

One engineering consultant also expressed concern over both capacity and capability:

> *"The problem with the existing system is that there is a vast range of level of competency in both design verifiers and inspectors. The current system requires individuals to be assessed as competent and then also be a part of a company that has an accredited QA* [quality assurance] *system. In practice, this means that only a few companies have to do all the work. The work is relatively unrewarding and hence these companies have a large turnover of staff and inevitably the best people end up leaving for better reward elsewhere and you are left with the least competent staff. In my opinion, it would be better to keep the individual competency assessment requirement but remove or de-formalise the requirement for companies to be accredited, thus any competent individual should be able to do this work regardless of what company they work for".*

Question 5.28

There were 43 submitters who answered this question about the requirements for those certifying and inspection amusement devices. This included five from the construction sector (including a worker), two from the manufacturing, five from the engineering sector, 19 from the amusement and theme park sector, and three territorial authorities.

Submitters included Civil Contractors New Zealand Inc, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, AJ Hackett Bungy, Mahon's Amusements Ltd, Model Engineering Association of New Zealand, Auckland, Christchurch and Dunedin City Councils, IANZ, Certification Board for Inspection Personnel Inc, and the New Zealand Arboriculture Association Inc.

Half of the submitters (21 submitters) supported the current requirement that a Certified Practicing Engineer (CPEng) certify and inspection amusement devices. Few left a comment as to their rationale but AJ Hackett Bungy also noted the need for the inspector to be a qualified auditor or accompanied by one.

Twelve submitters recorded "unsure"; eight were from the model engineering sector and aligned with the Model Engineering Association of New Zealand submission that it, "[D]epends on whether the device is actually high risk plant or more of an activity involving low risk equipment with a few operational risks which need to be managed".

Two submitters recorded "no". One submitted that the system be reviewed to work with the new regulations. The other that certain qualified people could also undertake the certification and inspection process.

Question 5.29

There were 55 submitters who answered this question about inspection bodies and personnel being able to maintain the register of plant. This included one from the forestry sector (the Forestry Industry Safety Council), 10 from the construction sector (including a worker), one from the manufacturing sector (that wished to remain anonymous), eight from the engineering sector, one from transport and freight (the Ports of New Zealand), 12 from the amusement and theme park sector, five from the energy sector and two territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Off Road New Zealand, Genesis, Contact and Mercury Energy, Methanex, IANZ, Certification Board for Inspection Personnel Inc, Bureau Veritas New Zealand Pty Ltd, the Meat Industry Association, New Zealand Arboriculture Association Inc and the New Zealand Institute of Safety Management.

Forty-one respondents to this question supported inspection bodies and personnel maintaining the register. However, the responses recorded suggest that not all agreed what this might mean. Some submitters considered this would be the body or person themselves maintaining a register, others thought it was them maintaining a central register. A key theme otherwise arising from the submissions was that the competency of the inspection bodies and personnel would need to be maintained.

Of the seven submitters against the proposal, two submitters re-iterated that they were against registration. All the others submitted in support of an independent register. Two of the other submitters (that did not select yes/no/unsure) submitted a concern over the potential cost of registration.

Retain current inspection periods and operational requirements for different categories of plant

5.30	What level of detail should the regulations specify concerning the periods of inspection, the applicable standards, and the matters subject to inspection for different classes of plant?
5.31	What level of detail in describing competencies should be included in regulations for high-risk plant?
5.32	What inspection requirements should be contained in safe work instruments or approved of codes of practice?

Question 5.30

There were 46 submitters who answered this question about the periods of inspection, the applicable standards, and the matters subject to inspection for different classes of plant. This included seven from the construction sector, two from the manufacturing sector, eight from the engineering sector, one from transport and freight (the Ports of New Zealand), one from the fisheries sector, nine from the amusement and theme park sector (the majority being from the model engineering sector), four from the energy sector and two territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, Construction Health and Safety New Zealand, the Roofing Association of New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Genesis, Contact and Mercury Energy, Methanex, IANZ, the Certification Board for Inspection Personnel Inc, Bureau Veritas New Zealand Pty Ltd, the Meat Industry Association , and the New Zealand Institute of Safety Management.

There were:

- three references to following the approach in the Australian Model Regulations

- four submitters that referenced reliance on Standards, with the Standard *AS/NZS 3788:1996 Pressure equipment - In-service inspection* receiving mention
- six submitters whose view could be summarised as taking a risk-based approach, with half of those including a maximum timeframe (of three or five years)
- five submitters in favour of the use of a combination of Standards and Approved Codes of Practice (ACoPs), two of them submitting very little should be in the Regulations
- seven submitters in favour of the use of ACoPs or best practice guidance, to avoid the Regulation becoming outdated – concern was also expressed about Standards becoming outdated

Other suggestions received included aligning with the inspection timeframe or with manufacturers' specifications. Five submitters recorded that specificity was needed to ensure consistency across the inspection bodies and personnel.

Question 5.31

There were 42 submitters who answered this question about the detail in describing competencies related to high-risk plant. This included one from the forestry sector (the Forestry Industry Safety Council), nine from the construction sector, two from the manufacturing sector, six from the engineering sector, one from transport and freight (the Ports of New Zealand), one from the fisheries sector, five from the amusement and theme park sector, four from the energy sector and one territorial authority (Christchurch City Council).

Submitters included Scaffolding, Access and Rigging New Zealand, Construction Health and Safety New Zealand, Civil Contractors New Zealand Inc, the Roofing Association of New Zealand, Oji Fibre Solutions, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Genesis, Contact and Mercury Energy, Methanex, IANZ, Certification Board for Inspection Personnel Inc, Bureau Veritas New Zealand Pty Ltd, the Meat Industry Association, Ski Area Association New Zealand, and the Council of Trade Unions.

There were eight submitters who, in some way, referenced a desire to retain the status quo. They came from a variety of sectors, including engineering and model engineering. There were also eight submitters in support of very detailed competency requirements to maintain safety and provide consistency.

Three submitters suggested the use of Approved Codes of Practice (ACoPs) or industry-based competency requirements including Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand. Construction Health and Safety New Zealand and one other submitter suggested aligning the approach with the Australian Mode Regulations. Four referred to the need for qualified inspectors with one specifically referencing Certified Practicing Engineers (CPEng).

Question 5.32

There were 35 submitters who answered this question about the inspection requirements that should be contained in safe work instruments or approved codes of practice (ACoPs). This included one from the forestry sector (the Forestry Industry Safety Council), six from the construction sector, two from the manufacturing sector, five from the engineering sector, one from transport and freight (the Ports of New Zealand), one from the fisheries sector, nine from the amusement and theme park sector, three from the energy sector and two territorial authorities.

Submitters included Construction Health and Safety New Zealand, the Roofing Association of New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Genesis, Contact and Mercury Energy, IANZ, and the Meat Industry Association.

Five submitters were from the model engineering sector, with four of them submitting a desire to develop a good practice guide. Another five submitters – all from different sectors – made some reference to taking an approach consistent with or similar to the status quo. Mercury Energy submitted:

> *"Inspection requirements are dependent upon a multitude of factors including the nature of design, current condition and environment. Currently believe the ACOP for PE* [pressure equipment] *is suitable (requires review however)".*

Four submitters referenced competency requirements, with Regional Facilities Auckland and one other submitter recorded "frequency and competency level required". There were three references to these documents following manufacturers' recommendations and two references to following the approach in the Australian Model Regulations, including from Construction Health and Safety New Zealand. Otherwise, there were a range of individual or sector-specific views submitted.

IANZ submitted:

> *"As a minimum a safe work instrument or ACoP should preferably list the minimum aspects of each type of equipment that must be inspected. The current Cranes ACoP would be a reasonable model to start with. There should also be a clear and unambiguous statement that it is the responsibility of the inspection body to perform whatever inspections it deems necessary, in addition to the minimum listed items, in order to support a professional judgement of conformance".*

Remove or reduce the requirement for amusement devices to hold a territorial authority permit to operate

5.33	Should territorial authority permits continue to be required for amusement device installations?
5.34	Which of the above options for territorial authority involvement in permitting is most suited to the risks from amusement devices?
5.35	Who should meet the costs of any territorial authority permitting?

Question 5.33

There were 41 submitters who answered this question about territorial permits for amusement device installation. This included one submitter from the construction sector (a worker), three from the engineering sector, one from transport and freight (the Ports of New Zealand), one from the fisheries sector, 28 from the amusement and theme park sector, and three territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, Construction Health and Safety New Zealand, the Roofing Association of New Zealand, Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, Rainbows End, AJ Hackett Bungy New Zealand, Mahon's Amusements Ltd, Off Road New Zealand, Model Engineering Association of New Zealand, Auckland, Christchurch and Dunedin City Councils.

There were only four submitters in support of the status quo, of territorial authorities continuing to issue permits for amusement devices. One of those was the Council of Trade Unions, which like the others, left no supporting comment as to the rationale for their view. The two submitters that selected "unsure" also did not say why.

There were 24 submitters who selected "no" – including the Auckland, Tauranga and Dunedin City Councils – along with 16 submitters from the model engineering sector. The Tauranga and Dunedin City Councils submitted that the function of permitting amusement devices was better left to the regulator. Concern about the capacity and capability of the territorial authorities was expressed by other submitters against the status quo (who were not from the model engineering sector). There was no theme arising from the six model engineering sector comments beyond a questioning of the value of the process.

There were another 10 submitters who did not chose a yes/no/unsure answer but otherwise left a comment. The key theme arising from the comments was that fixed, and temporary or mobile devices,

could be separated, with fixed devices subject to the building consent and warrant process under the Building Act 2004, and temporary or mobile devices falling under the health and safety regime.

Question 5.34

There were 22 submitters who answered this question about the options for involving territorial authorities in permitting amusement devices. This included three from the construction sector (including a worker), one from the engineering sector (that wished to remain anonymous), eight from the amusement and theme park sector, and two territorial authorities. Submitters included Rainbows End, AJ Hackett Bungy, Off Road New Zealand, Design Ltd, and Auckland and Dunedin City Councils.

There were no submitters that selected "retaining the current requirement" as an option in response to this question. The other responses chosen were:

- *Requiring permits for temporary installations only* – four submitters, all from the model engineering sector
- *Requiring permits for installations above an agreed level of* risk – three submitters, including two from the construction sector
- *Removing the requirement* – two submitters, including Regional Facilities Auckland and a private individual
- *Replacing the requirement with specific inspection requirements* – two submitters, including Sentinel Inspection Services Ltd and a construction sector submitter
- *None of the above* – three submitters, all from the model engineering sector
- *Unsure* – one submitter making a general submission
- *A combination of the above* – seven submitters, including five from the model engineering sector, Off Road New Zealand and an engineering sector representative.

Only those that selected "a combination of the above" were given the opportunity to provide comment in the online survey and all chose to do so, suggesting that permanent installations should not require ongoing permitting. Off Road New Zealand submitted:

> *"Permanent installations should be suitably covered by design, resource and building codes on construction. Temporary or movable devices should only need inspection or geotechnical / electrical safety etc if it is actually a valid risk for the device. This could be determined by the certifying engineer or operator".*

Question 5.35

There were 18 submitters who answered this question about the options for meeting the cost of territorial authorities in permitting amusement devices. This included one each from the construction, manufacturing and engineering sectors (that wished to remain anonymous), one from the transport and freight sector (the Ports of New Zealand), 7 from the amusement and theme park sector and three territorial authorities.

Submitters included Construction Health and Safety New Zealand, Recreation Safety Engineering, Rhodes Engineering and Design Ltd, and Auckland, Tauranga and Dunedin City Councils. All three of the councils considered that the operator should meet the cost. This was the view of 13 off the submitters. The other responses included:

- no cost for model engineering (one submitter)
- the "end user" (two submitters)
- shared between the owner and regulator (one submitter)
- build into consent process, then charge for any required inspections/certifications (one submitter).

Review the notification requirements for incidents involving individual items of plant, and "type faults" of registered designs

5.36	Should the existing "type fault" provisions in the Pressure Equipment, Cranes, and Passenger Ropeways Regulations be retained in new regulations for high-risk plant?
5.37	Which incidents involving different categories of high-risk equipment should be notifiable to WorkSafe?

Question 5.36

There were 39 submitters who answer this question. This included nine from the construction sector, one from the manufacturing sector (Oji Fibre Solutions), four from the engineering sector (all but one being a private individual), one from the fisheries sector (that wished to remain confidential), six from the amusement and theme parks sector, four from the energy sector and two territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, Recreation Safety Engineering, Mahon's Amusements Ltd, Genesis, Contact and Mercury Energy, the Meat Industry Association, Ruapheu Alpine Lifts ltd, Candrona Alpine Resort, IANZ, the Certification Board for Inspection Personnel Inc, the New Zealand Institute of Safety Management and the Council of Trade Unions.

Thirty-one of the submitters supported the proposal that existing "type fault" provisions in the Pressure Equipment, Cranes, and Passenger Ropeways Regulations be retained in new regulations for high-risk plant. Three submitted against the proposal. Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand both submitted:

> *"Type fault provisions should remain in regulations for high risk plant along with provisions that upstream PCBUs* [Persons Conducting a Business or Undertaking] *should notify downstream PCBUs in the event of a type fault being reported that could be potentially present in other similar plant".*

The above view was also held by the Council of Trade Unions which submitted that, "We believe this should be retained as this facilitates information sharing and widespread risk management". This was the theme of all the 16 submitters that recorded a comment. For further example, IANZ submitted:

> *"Information gained in this way, coupled with the individual plant register could facilitate notifications to unsuspecting operators/controllers of potential issues and thereby promote health and safety at work".*

The rationale of the three submitters against the proposal and the two which were "unsure" was not clear from their comments, with one submitter from the model engineering sector submitting that they did not believe the regulations needed to be changed. There were no themes arising from the other comments recorded.

Question 5.37

There were 39 submitters who answered this question about the incidents involving different categories of high-risk equipment that should be notifiable to WorkSafe. This included the Forestry Industry Safety Council from the forestry sector, eight from the construction sector, three from the engineering sector (all private individuals), one from the manufacturing sector (that wished to remain anonymous), one from transport and freight (the Ports of New Zealand), 10 from the amusement and theme parks sector (six being from the model engineering sector), three from the energy sector along with Auckland Council.

Submitters included Scaffolding, Rigging and Access New Zealand, the Roofing Association of New Zealand, Civil Contractors Inc, Construction Health and Safety New Zealand, Rainbows End, AJ Hackett Bungy, Regional Facilities Auckland, Genesis, Contact and Mercury Energy, the New Zealand Arboricultural Association and the New Zealand Institute of Safety Management.

The key themes under this question included:

- that there were appropriate obligations already in place in the Health and Safety at Work Act 2015 (HSW Act), with eight submitting to this effect including a number of energy sector representatives
- that incidents which resulted in loss or harm, or was a near miss should be notifiable, with six submitters commenting under this theme in some form
- a desire to retain the status quo, with five submitters including AJ Hackett Bungy and Rainbows End believing the current obligations were satisfactory
- that all incidents should be notifiable, with four submitters commenting to this effect, including two from the construction sector and Regional Facilities Auckland.

There were also sector-specific submissions that referenced such things as:

- structural collapse,
- uncontrolled descent of any working platform,
- structural failure of any primary load bearing component
- broken lifting cables
- hydraulic failure causing sudden depressurisation
- safety nut failure
- escape of gas
- sky-diving chute malfunctions.

The Forestry Industry Safety Council submitted against notification requirements for Yarders:

> *"…we reject the notion that Yarders be regulated because the current definition of notifiable incident, with respect to plant failure, is limited to "the collapse, overturning, failure, or malfunction of, or damage to, any plant that is required to be authorised for use in accordance with regulations". (Authorised meaning authorised by a licence, permit, registration, consent, certificate, or other authority). We support the current list of Notifiable Events as defined in the H&SAW Act. We see no need to include any additional incidents related to forestry activity. If Worksafe believe the definition is inadequate, then tidy up the definition".*

Additional requirements on upstream duty holders for high-risk plant

5.38	Do we need additional requirements on upstream duty holders in relation to high-risk equipment?
5.39	Do you agree with a prohibition on supplying plant that is not design registered when it is required to be?

Question 5.38

There were 48 submitters who answered this question about the need for additional requirements on upstream duty holders in relation to high-risk plant. This included the Forestry Industry Safety Council from the forestry sector, 10 from the construction sector, five from the engineering sector, one from the manufacturing sector (Oji Fibre Solutions), one from transport and freight (the Ports of New Zealand), nine from the amusements and theme parks sector, and four from the energy sector.

Submitters included Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand, Construction Health and Safety New Zealand, Recreation Safety New Zealand, Rainbows end, AJ Hackett Bungy, Mahon's Amusements Ltd, Genesis, Mercury and Contact Energy, Auckland Council the Certification Board for Inspection Personnel Inc and the Council of Trade Unions.

Twenty-one submitters recorded "yes" in response to this question about additional requirements for upstream duty holders, 14 left a comment with no consistent theme emerging. Some references were

made back to the proposals in Section 4 of the Discussion Paper, and other references were made to others in the supply chain understanding the intended use of the plant. Auckland Adventure Park submitted:

> *"Yes, if someone has claimed to have supplied or manufactured something that meets the criteria, and it doesn't causing harm or loss, then they are professionally liable".*

References back to section 4 were also recorded by two of the nine submitters that recorded "no" in respond to the question – only four of these submitters recorded a comment. The Forestry Industry Safety Council said that the matter was "…adequately covered in the H&SAW Act. In our experience Designers and Manufacturers of specialised forestry equipment are aware of their responsibilities".

Only one comment was recorded against the six submitters that were "unsure" in response to the question. It was from a private individual who said:

> *"I am not sure what "record information about design and control methods" means in practice. Generally speaking it is not unreasonable to place some sort of requirements relating to documentation and/or processes but it needs to be well defined and unambiguous".*

Question 5.39

There were 52 submitters who answered this question. This included 12 from the construction sector, one from the fisheries sector (that wished to remain confidential), two from the manufacturing, eight from the engineering sector, nine from the amusements and theme parks sector, five from the energy sector and two territorial authorities.

Submitters included Oji Fibre Solutions, Recreation Safety Engineering, Rhodes Engineering and Design ltd, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand Inc, Rainbows End, AJ Hackett Bungy New Zealand ltd, Off Road New Zealand, Genesis, Contact and Mercury Energy, Auckland and Christchurch City Councils, the Meat Industry Association, IANZ, the Certification Board for Inspection Personnel Inc, the New Zealand Institute of Safety Management and the Council of Trade Unions.

Forty submitters were in support of this proposal, with 18 leaving a further comment. Most of the comments supported the respondent's initial "yes" response, for example, Bureau Veritas New Zealand Pty Ltd commented that "we strongly agreed with this". One submitter who wished to remain anonymous commented that, "[A]llowing unregistered plant when it is required to be registered ultimately leads to accidents and unfair commercial practice".

There was only one submitter against the proposal – a private individual – who submitted that the current regulatory requirements were sufficient. Off Road New Zealand recorded that it was "unsure", commenting that, "…if it is implemented needs to be written in a way that does not stop all new plant being imported if it becomes impossible or prohibitively expensive to register plant due to manufacturers not being willing to share sensitive information".

Contact Energy submitted that requiring design registration should be sufficient and that, "[I]f a registry is required then plant that is not registered cannot be used". Oji Fibre Solutions submitted that:

> *"With respect to Pressure Equipment, this is already effectively in place. Pressure Equipment must be design verified and will not be certificated by an inspector (and therefore cannot be operated) until they have evidence of this".*

Assessing the impact

5.40	Based on the proposals you have commented on in this section on **high-risk plant**, are there any significant costs and/or benefits that will affect you or your organisation?

Question 5.40

There were 51 submitters who answered this question. This included the Forestry Industry Safety Council from the forestry sector, six from the construction sector, two from the manufacturing sector, eight from the engineering sector, the Ports of New Zealand from the transport and freight sector, a submitter that wished to remain confidential from the fisheries sector, Engineering New Zealand, Recreation Safety Engineering, 13 from the amusement and theme park sector, six from the energy sector and the Christchurch City Council.

Submitters included Scaffolding Access and Rigging New Zealand, the Roofing Association of New Zealand, Civil Contractors New Zealand, Oji Fibre Solutions, AJ Hackett Bungy, Sentinel Inspections Services Ltd, Off Road New Zealand, Methanex, the Meat Industry Association, Cardrona Alpine Resort, IANZ, the Certification Board for Inspection Personnel and the Council of Trade Unions.

Seven of the responses to this question came from the model engineering sector, expressing concern about the potential increased cost, with two submitters suggesting that they might result in the closure of their clubs. An inspection body (that appeared to operate in this sector) commented:

> *"Yes. There will be a cost impact on maintaining a national register. As an inspection body we must retain our own inspection records as part of our IANZ certification. Any national register will require duplication. An increase in competition based on visibility of plant will definitely impact financially on the larger inspection companies".*

The energy sector was also concerned about the potential for significant cost, with Genesis, Mercury and Contact Energy all expressing concern, along with at least three others from the sector. Methanex submitted that, "[E]stablishing and maintaining a central register and requiring remaining design life assessments will create significant cost and strain in an already limited technical resource within New Zealand" and another company suggested it would have to hire new staff to manage the proposed requirements.

There was concern expressed about the cost of design registration for existing and aged plant, with this referenced by three submitters including Recreation Safety Engineering – in relation to amusement devices – and a large construction company. Both indicated the need for a transitional process that would appropriately manage this. With regard to the cost of registration, one construction sector submitter commented:

> *"We invest heavily on quality equipment, training, and maintenance The only expense that will be added will be extra cost imposed by our certifiers that they incur to register plant etc and maintain the register. But, hopefully this would work in the favour of operators doing things correctly and will weed out the cost cutting ones that slash rates to obtain work as they don't invest in safety and compliance".*

There were seven submitters that suggested – in some way – that the costs would be outweighed by benefits, this including Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand. The Council of Trade Unions submitted:

> *"High-risk plant is a key area in which regulations are required. Clarity and certainty are needed for managing the potentially catastrophic harm they have the potential to cause. Workers need to be able to go to work safely and come home, they also need to be afforded the opportunity to "fail safely" in that when things do go wrong there are control in place to best mitigate the harm".*

There were three submitters who suggested that there would be no cost to them associated with the proposals in this section. They included one territorial authority, one construction sector submitter and the Certification Board for Inspection Personnel Inc. There were also submitters that reinforced their opposition to the proposals in this section.

Section 6: Working at heights and scaffolding

Falls from heights cause significant harm in the construction sector. Although the general duties of the Health and Safety at Work Act 2015 (HSW Act) apply, regulations concerning work at height contain very few mandatory controls and do not reflect construction industry practice.

This section summarises the feedback received on the following proposals:

Summary of submissions received

Apply the Prescribed Risk Management Process to work at heights in all workplaces

6.1	Should the Prescribed Risk Management Process apply to work at heights in all industries? Why/ why not?

There were 59 submitters who answered this question. This included three from the agriculture sector, nineteen from the construction sector, one contractor from the forestry sector, three from the manufacturing sector and three from the engineering sector.

Submitters included Scaffolding, Access and Rigging New Zealand, Civil Contractors New Zealand Inc, along with the Council of Trade Unions and E tū Union.

Forty-six of the submitters said "yes", and supported the proposal that the Prescribed Risk Management Process apply to work at heights in all industries. Two of those submitters made specific reference to the agriculture sector and the need to address work in silos; one of these was the Agricultural Leaders' Health and Safety Action Group. Silos were also raised in a number of the consultation meetings.

Of those in support, the primary rationale submitted was that it would provide for a consistent approach across industry. The MinEx submission is representative of this theme. It stated:

> *"We agree that the Prescribed Risk Management approach provides a generic process of risk management, with additional criteria or thresholds included in relation to particular hazards, while allowing the flexibility needed for a wide range of work and workplaces. In relation to working at heights and other high-risk activities, the application of the Prescribed Risk Management Process will further improve clarity and consistency for workplaces, without requiring mandatory controls".*

Three submitted against the proposal, and three were "unsure". Of those who did not support the proposal, the New Zealand Arboricultural Association Inc expressed a concern about the need for industry specific obligations and noted that in their industry anchoring was often to a tree branch. A submitter from the energy sector had a similar concern, mentioning working on power poles and towers. These concerns were similar to that expressed by the Council of Trade Unions and E tū Union. Their submissions are set out below:

CTU: *"Working with scaffolding and heights needs to be standardised, and specific controls put into the regulations. As the nature of the work is common across sites, regulation is the best way to ensure that scaffolding and working at heights is being adequately controlled. We consider that the scaffolding requirements need to be regulated as working from height is an area that has recognised specific controls and does not need the catch-all backdrop of the Prescribed Risk Management Process. This work is better suited to a mandatory hierarchy of controls".*

E tū Union: *E tū is absolutely opposed to allow scaffolding to be managed through a Prescribed Risk Management Process. Mandatory controls should apply where scaffolding is used where there are significant risks but at least over 5 meters. Prescriptive controls need to be maintained on the structure itself, those erecting scaffolding should have a licence if over 5 meters. PCBUs erecting scaffolding should also be licenced.*

Set mandatory controls for work at heights in construction work

6.2	Should there be a default hierarchy of controls for work at heights on construction work?
6.3	Should the hierarchy of controls be the same as that described above?
6.4	Should the standards for moving from one step to another in the hierarchy of controls be 'unless reasonably practicable'?

Question 6.2

There were 48 submitters who answered this question. This included two from the agriculture sector, 18 from the construction sector, one from the engineering sector (Recreation Safety Engineering), three from the manufacturing, one from transport and freight (the Ports of New Zealand), one from the amusement and theme parks sector (Regional Facilities Auckland), eight from the energy sector along with Auckland and one other city council.

Other submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Associations, Universals Homes Ltd, Oji Fibre Solutions, Genesis, Mercury and Contact Energy, Methanex, the Certification Board for Inspection Personnel Inc and the Council of Trade Unions.

Thirty-nine of the submitters supported the proposal that there be a default hierarchy of controls for work at heights on construction work. As with question 6.1, clarity and consistency was a theme in the responses, with two submitters referring to the current WorkSafe best practice guidance. Three submitters also suggest that the obligation should be imposed on all industries, with one submitter that wished to remain anonymous submitting:

> *"Why is this section focusing on purely the construction sector? Are all working at heights risks managed in the same way, in all sectors not just construction? Suggest that the regulations remove the focus on just the construction industry, and that the WorkSafe guidelines extend all working at height requirements to all workplaces, and have industry-specific examples".*

Eight submitted "no" against the proposal, three of these submitters made reference the Prescribed Risk Management Process being sufficient. One energy sector submitter recorded "unsure" and noted this was because, "Safe Working Platform may not always be the first control applied when working on power poles". Sky TV's submission was similar, that there was no default building so it was challenging to apply default controls.

Question 6.3

There were 47 submitters who answered this question. This included two from the agriculture sector, 17 from the construction sector, one from the engineering sector, three from the manufacturing, sector, one

from transport and freight (the Ports of New Zealand), one from the amusement and theme parks sector (Regional Facilities Auckland), nine from the energy sector along with Auckland and one other city council.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Associations, Universals Homes Ltd, Recreation Safety Engineering, Oji Fibre Solutions, Powerco, Genesis, Contact and Mercury Entergy, the New Zealand Arboricultural Association Inc, Certification Board for Inspections Personnel Inc, and the New Zealand Institution of Safety Management.

Thirty-three of the submitters supported the proposal that the default hierarchy of controls be: safe working platform - fall prevention - fall arrest. Eight submitted against the proposal and two were “unsure”. Of these two, only one made a comment, suggesting that the first step in the hierarchy should be to eliminate the need to work at height. Of those who submitted against the proposal or otherwise commented in the free text field, there were two key themes. The first was to rely on the Prescribed Risk Management Process (allowing a more site and risk-specific determination process). The other was that the hierarchy would not work in their industry or for their type of work (such as for the electricity industry). The Roofing Association of New Zealand submitted that it, “also [would] want ladders added as a bottom level of control. A simple gutter leak should not entail the construction of $1000 of scaffolding to complete a 5 minute task. Ladders can be used safely”. Including ladders was also submitted by Construction Health and Safety New Zealand and another construction business.

Of those in support of the proposal, few substantive comments were made as to their rationale. One scaffolder that wished to remain anonymous commented that, “[I]ndustry at present looks at the Hierarchy of Control as a guidance choice not as a "Hierarchy". It is not understood very well within the residential sector where most of the serious harm occurs”. The Council of Trade Unions submitted that, “…stricter mandatory controls should be set for all work over 5m”.

Question 6.4

There were 47 submitters who answered this question about the standard for moving between the hierarchy of controls. This included one from the agriculture sector, 17 from the construction sector, one from the engineering sector, three from the manufacturing sector, one from transport and freight (the Ports of New Zealand), one from the amusements and theme parks sector (Regional Facilities Auckland), nine from the energy sector along with Auckland and one other city council.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Associations, Universal Homes Ltd, Recreation Safety Engineering, Oji Fibre Solutions, Powerco, Genesis, Contact and Mercury Engergy, the New Zealand Arboricultural Association Inc, Certification Board for Inspections Personnel Inc, New Zealand Institution of Safety Management and the Council of Trade Unions.

Thirty-two of the submitters supported the proposal with few providing detail as to their rationale. One commented that, “[P]eople need help to consistently judge this rather than using it as a convenient step to cheapest and easiest protections”. On the point of cost, one scaffolder that wished to remain anonyomous also submitted:

> *“The intent of the Hierarchy of Control was always that. Cost is and was taken as a reason for stepping down thru the H of C to the cheapest method, fall arrest, without considering training, rescue and supervision. Reasonably Practicable will need to be very clearly define”.*

Six submitted against the proposal with some concern expressed that what is “reasonably practicable” is open for interpretation and that is can be used as an excuse. Scaffon Ltd recorded “no” and provided an alternative suggestion commenting that, “"By taking the most practicable steps" would be a better wording so there is a planning process inferred within the sentence”. Civil Contractors New Zealand Inc also suggested an alternative, that moving to the next step should be on the basis that, “…it is “NOT reasonably

practicable" to do the previous step". While the CTU noted in its submission that, "[T]he last tier of the hierarchy cannot be unless reasonably practicable, this must be a mandatory control".

Three submitters recorded "unsure", with another from the construction sector also providing some commentary on the proposed wording, submitting:

> *"Wording should confirm that you can't move from a higher level of control to a lower one unless the higher control is not practicable. Must also be clear that it is OK to combine controls and using a higher level control can be combined with a lower one where that provides best standard of protection".*

Revise the definition of "construction work"

6.5	Should the definition of "construction work" be revised to follow the Australian model regulations formulation?
6.6	What types of work or workplaces included in the current definition should be excluded?
6.7	What types of work or workplaces not included in the current definition should be included?

Question 6.5

There were 31 submitters who answered this question about whether the definition of "construction work" should be revised to follow the Australian model regulations formulation. This included one from the agriculture sector (that wished to remain anonymous), 14 from the construction sector, two from the manufacturing sector, one from the amusement and theme parks sector (Regional Facilities Auckland), five from the energy sector, along with Auckland and one other city council.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Universals Homes Ltd, Oji Fibre Solutions, Genesis Energy, Contact Energy, the New Zealand Institute of Safety Management and the Council of Trade Unions.

Twenty-one of the submitters supported the proposal, few left comments as to their rationale. One construction business commented, "[W]e work in both countries so having the same definition makes it less confusing". Universal Homes Ltd submitted that, "[T]he inclusion of aspects such as prefabrication and pre-assembly is important as it is becoming a part of the way construction is taking place and will make sure the regulations can remain fit for innovation". Scaffolding, Accessing and Rigging New Zealand and the Roofing Association of New Zealand also noted the changing nature of construction work:

> *"SARNZ agrees the definition of construction work used in the Australian model regulations should be adopted. SARNZ believes there should be clarification of work carried out on prefabricated elements of buildings and structures. The Prescribed Risk Management Process and Hierarchy of Controls for Working at Height should apply whether work is conducted on the final site or in a manufacturing or other environment. Respondents to our survey and workshop commented that suitable controls for working at height must be used in every industry".*

There were eight submitters who were unsure of the proposal with one questioning how it might apply to electrical installation work. Sky submitted that it was a good model but could still be improved (without offering a view as to how). One scaffolder that wished to remain anonymous submitted:

> *"The Model Regulations seem to water down the definitions. Given that construction is regarded as one of the high risk industries, the more inclusive the definitions the better, smaller industry players look for the exclusions in the regulations not the inclusions".*

Two submitted against the proposal with both referencing the need for a New Zealand focus to the definition. Civil Contractors New Zealand Inc did not record an answer but submitted that, "…all working at heights should be managed…" questioning why there was a focus on construction only. The feedback was also made by others, in response to other questions.

Question 6.6

There were 26 submitters who answered this question. This included one from the agriculture sector (Core H&S Ltd), nine from the construction sector, three from the manufacturing sector, six from the energy sector and Auckland and one other city council. Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Genesis, Mercury and Contact Energy, Methanex, the New Zealand Institute of Safety Management and the Council of Trade Unions.

Sixteen of the submitters were happy with the Australian definition as it was, submitting that or that no exemptions were necessary, one submitted that they were "unsure". Of those who made suggestions, two submitters from the energy sector referenced emergency electrical repair work, and three suggested low height and low risk work (with two of these suggesting this work would be less than 2 metres). Other suggestions included:

- Tree work being undertaken on a construction site or for a construction company
- Cleaning work

One submitter commented that, "[A]ll workplaces should be required to follow the hierarchy of controls".

Question 6.7

There were 19 submitters who answered this question about the work or workplaces that should be included in the definition of construction work, including 11 submitters who indicated that the Australian definition should be adopted as is, with no additional changes. Other submitters included:

- Anonymous: "There can be cross over at times between the construction industry and manufacturing e.g prefabricated buildings, this needs to be considered"
- Sky: "It should be activity based:
- Scaffcon Ltd: "High Lift Warehousing, Industrial work in hot or corrosive areas and also exterior chimneys or vents at height"
- Anonymous: "Housing, marine"

Set a height threshold below which some or all of the steps in the hierarchy of controls would not apply to work at heights on construction work

6.8	Should the regulations set a height threshold below which the full hierarchy of controls do not apply to work at heights in construction work?
6.9	If a height threshold is used, should it be set at 2 metres or 3 metres?

Question 6.8

There were 53 submitters who answered this question about whether the regulations should set a height threshold below which the full hierarchy of controls do not apply to work at heights in construction work. This included from the 13 construction sector, one from the engineering sector (Recreation Safety Engineering), one private individual from the manufacturing sector, the Ports of New Zealand from the transport and freight sector, Regional Facilities Auckland from the amusement and theme parks sector, six submitters from the energy sector, along with two territorial authorities including Dunedin City Council.

Submitters included Contractors New Zealand Inc, Construction Health and Safety New Zealand, Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Universal Homes Ltd,

Powerco, Entertainment Production Services Ltd, the New Zealand Arboricultural Association Inc, and the Certification Board for Inspection Personnel Inc.

Eighteen of the submitters said "yes", with no clear theme emerging in the rationale, although "clarity" was referenced twice. One city council that asked to be anonymous submitted yes, "[B]ut also consider the risks of going below ground or across that create falls from height risks (like around water)". Scaffon Ltd provided the most substantive response:

> *"3.0 metres, as an extended harness lanyard along with the average height of a user is approximately 3.0 to 3.2 metres, it is pointless to regulate a shorter height. 3.0 metres is also the maximum height of the first scaffold platform allowable under the GPG (Good Practice Guidelines for Scaffolding in NZ)".*

Entertainment Production Services Ltd did not record a yes/no/unsure answer but submitted in favour of using the Prescribed Risk Management Process saying:

> *"In general, we feel that removing the three-metre threshold would not be too onerous when using the prescribed Risk Management Process but, again, would be concerned about implementing mandatory controls. Our industry has the issue of the edge of the stage that is elevated for sightlines of the audience and often leads to a reasonably deep orchestra pit. This risk needs to be managed differently at different stages e.g. a barrier to prevent falls (and equipment falling off) during installation and dismantling and administrative controls during a performance where a physical barrier would have an adverse effect on the production".*

The key theme of submissions against the proposal was that harm can be caused from falls at low levels of height. Universal Homes Ltd also noted, "[T]he full context of the work area is key in this instance as sometimes a workplace has secondary risks that may contribute to work at height injuries, even from a relatively low height".

Question 6.9

There were 52 submitters who answer this question about what the height threshold should be. This included 12 from the construction sector, one from the engineering sector (Recreation Safety Engineering), one private individual from the manufacturing sector, a worker from the fisheries sector, the Ports of New Zealand from the transport and freight sector, two from the amusement devices and theme parts sector, four from the energy sector along with two territorial authorities including Dunedin City Council.

Submitters included the Roofing Association of New Zealand, Universal Homes Ltd, Powerco, Ruapehu Alpine Lifts Ltd, and E tū Union.

Ten submitters recorded no height threshold in response to this question, with at least half referencing their response to question 6.8. Edge Protection NZ Ltd submitted that, "[A]ll work at height carries risk and the appropriate controls should be implemented in every case". This echoed other responses.

Nineteen submitters selected 2 metres, including E tū Union. One business – that wished to remain anonymous – submitted that, "[T]his ties in regulations with AS/NZS 1576: 2010 'Minor Scaffolds' which Standards have recognised as a distinct category within scaffolding and do not require exactly the same criteria as large scale scaffolds". Two submitters considered that falls from 3 metres are more damaging than from a height of 2 metres.

Eight submitters selected 3 metres, without provide any substantive rationale. One E tū Union member submitted:

> *"Probably around 3 meters. Another thing to remember, when using a harness, is to consider whether the area the worker is working in, the harness doesn't create a hazard for the user e.g obstacles that the harness can get wrapped around. The only time I've ever seen a harness being used on site is when contractors have used Cherry Picks".*

Set a work duration below which the full hierarchy of controls would not apply to work at heights on construction work

6.10	Should the regulations set a work duration threshold at which the full hierarchy of controls apply to work at heights in construction work?
6.11	If so, is there a preferred option from the list above?

Question 6.10

There were 52 submitters who answered this question. This included 12 from the construction sector, one private individual from the manufacturing sector, the Ports of New Zealand from the transport and freight sector, Regional Facilities Auckland from the amusement and theme parks sector, five from the energy sector along with two territorial authorities.

Submitters included Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Universal Homes Ltd, Powerco, Entertainment Production Services Ltd, the New Zealand Arboricultural Association In, Inc and E tū Union.

Eleven submitters selected "yes", in favour of a work duration threshold at which the full hierarchy of controls apply to work at heights in construction work. Two of the submitters commented, however, that it should be a duration and height combination. Universal Homes Ltd submitted, "[T]here are times that short duration work is required and it is appropriate to use ladders, the conditions should be made clear though". The use of ladders was a matter raised by other submitters, in response to other questions. It was also raised by three other submitters, including an E tū Union worker, who did not record a yes/no/unsure answer. The worker submitted, "Ladder use should be restricted to access and short duration only" and Entertainment Production Services Ltd submitted:

> *"Although due consideration should be given to the appropriate use of ladders and this process should be documented we do not believe any mandatory stipulations to tasks undertaken and timeframes involved but, instead would like to see guidance material produced to help identify and manage the risks involved with ladder work".*

Twenty seven submitters were against a duration being set. Scaffolding, Access and Rigging New Zealand and the Roofing Associations of New Zealand were strongly against the proposal:

> *"SARNZ believes there should not be a work duration threshold below which the full hierarchy of controls for work at height in construction apply. ACOPs and Industry Guidance along with use of the Prescribed Risk Management Process should determine what is "reasonably practicable" in the circumstances when working through a mandatory hierarchy of controls. Duration of a task is one of the elements of a risk assessment".*

The Ports of New Zealand also referenced the use of the Prescribed Risk Management Process while a number of other submitters noted that exposure time might be reduced but not the risk. One city council that wished to remain anonymous submitted that, "[C]ontractors use time thresholds to rush work and arguably create greater likelihood of skipping the use of controls".

Question 6.11

There were 42 submitters who answered this question about duration. This included 10 from the construction sector, a private individual from the manufacturing sector, the Ports of Zealand from transport and freight, Regional Facilities Auckland from the amusement and theme parks sector, five from the energy sector and one territorial authority. Submitters included Universal Homes Ltd, Powerco, and Ruapheu Alpine Lifts Ltd.

Sixteen of the submitters selected "no work duration threshold", with the Ports of New Zealand again referencing the need for a risk-based approach which was also the view of Mr Shelf and Sky. Mr Shelf was the only submitter that selected "Criteria for determining a maximum duration for work" and Sky selected "other".

There were two references to the use of ladders from submitters that selected "no work duration threshold" with one energy sector submitter commenting, "[L]adder work on electricity distribution poles is location and time dependent. Not always possible to use mobile EWP". Thirteen other submitters selected "Describing the circumstances and conditions of use where ladders may be used for short duration work" with only two providing comment. A business which wishes to remain confidential submitted:

> *"Ladders especially with a platform are a very suitable option for many low access situations. Describing these situations is much more commonsense than attempting to limit the duration of the job".*

Review the competency and adequacy requirements for the construction of scaffolding

6.12	Should the Australian Model Regulation requirement for scaffolding be adopted?
6.13	Should the regulations retain the current requirement for the fitness for purpose and adequacy of scaffolding?
6.14	Should the authorisation of competencies for scaffolding (currently by certificates of competence) be required of individuals and/ or PCBUs?
6.15	Should the 5 metre threshold for an authorisation to erect scaffolding (currently a certificate of competence) be retained, or should it be set at 6m or higher?
6.16	Do the current classes of basic, intermediate and advanced scaffolding certificates of competence reflect the levels of competency required by the industry?
6.17	If not, what classes of scaffolding should replace them and how should this reflect increasing use of proprietary systems instead of 'tube and clip' scaffolds?
6.18	Who should authorise competency for scaffolders?

Question 6.12

There were 37 submitters who answered this question as to whether the Australian Model Regulations for scaffolding should be adopted. This included one from the agricultural sector (that wished to remain anonymous), 14 from the construction sector, a private individual from the manufacturing sector, one from transport and freight (the Ports of New Zealand), one from amusement and theme parks (Regional Facilities Auckland), six from the energy sector along with Auckland and one city council that wished to remain anonymous.

Submitters included Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, and the Council of Trade Unions.

Twenty-one submitters supported the adoption of the Australian Model Regulations but only five left a comment. The Ports of New Zealand commented that the model regulations had been effective, and one business commented this was already the practice. The other submitter, Edge Protection NZ Ltd submitted:

> *"The erection of scaffolding requires a specific skill set and the current rule of 5mtrs allows for too many incidents to potentially occur from users or erectors of scaffolding up to 5mtrs".*

Twelve submitters were against the proposal with all but Regional Facilities Auckland providing some comment. Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand shared a view which was also referenced by Construction Health and Safety New Zealand:

> *"SARNZ does not believe the Australian Model Legislation for scaffolding should be adopted. The WorkSafe Scaffolding in NZ Good Practice Guidelines, Section 4 Training and Competence, sets out competence requirements for scaffolding, SARNZ believes these requirements should remain. SARNZ also believes these competence requirements should be extended to all equipment covered in the Hierarchy of Controls for Work at Height, that is, scaffold of any height, mobile elevated work platforms, edge protection systems, fall arrest and rope access systems, safety nets, fall bags, etc".*

Scaffon Ltd did not think the model regulations worked and another submitter that wished to remain confidential said that the current New Zealand approach was better. Another submitter who wished to remain confidential was an outlier submitting for the status quo.

Of the four submitters that were "unsure", one private individual commented that, "[A]ny scaffold needs to be constructed by a competent person. Higher and more complex scaffolds may need designing".

Question 6.13

There were 38 submitters who answered this question about retaining the current requirement for the fitness for purpose and adequacy of scaffolding with three who were "unsure", and one that did not select a response (E tū Union). Thirty-three submitters selected "yes" with 11 that made comments.

There were 13 submitters from the construction sector including the Roofing Association of New Zealand and Universal Homes Ltd. There was one private individual from the manufacturing sector along with Oji Fibre Solutions, the Ports of New Zealand from the transport and freight sector and Regional Facilities Auckland from the amusement and theme parks sector. Respondents included six submitters from the energy sector, and the Council of Trade Unions E tū Union was the submitter that did not select a "yes" response, commenting:

> *"The WorkSafe initiative around working at height has shown positive results and that industry can respond with innovation if standards are being raised by the regulator. This approach needs to be supported in regulation".*

The Roofing Association of New Zealand submitted:

> *"RANZ believes the requirement for scaffolds to meet the requirement of fitness for purpose and adequacy of strength and quantity should be retained in regulations. There are numerous and varied scaffold systems available in New Zealand, the PCBU responsible for a construction project should ensure that an appropriate system that is fit for the intended purpose is utilised. The scaffold system needs to be of adequate strength to meet the required duty rating and be adequate in quantity to fulfil the requirements of the task it is being utilised for".*

Question 6.14

There were 37 submitters who answered this question. This included one from the agricultural sector (Core H&S Ltd), 16 from the construction sector, three from the manufacturing sector, the Ports of New Zealand from the transport and freight sector and Regional Facilities Auckland from the amusement and theme parks sector, five from the energy sector along with one territorial authority.

Submitters included Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Universal Homes Ltd, and Oji Fibre Solutions.

The two submitters that selected "unsure" in response to this question did not comment as to why. One submitter that wished to remain confidential did not select a response, but commented that it, "…consider[s] the requirement for fitness to purpose and adequacy of scaffolding should be retained".

Fourteen submitters selected "individuals" with few comments. This was the choice of Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand which shared a view and submitted:

> *"SARNZ and RANZ believes individuals should require a certificate of competence to erect, alter, dismantle or directly supervise the erection, alteration or dismantle of scaffolds with any components higher than 5 metres or that are covered by the NZQA [New Zealand Qualifications Authority] NZ Certificates in Advanced Scaffolding, or NZ Certificate in Suspended Scaffold. This is the current requirement and it should remain unchanged SARNZ and RANZ also believe that any PCBU (Business) that supplies scaffold equipment for hire or that arranges the erection, alteration or dismantle of scaffold equipment for other PCBUs or persons should be licenced. Licencing should require proof the PCBU has adequate quality and safety management systems, resources and personnel to manage the work undertaken. SARNZ and RANZ believe licencing should be extended to any PCBU providing equipment or services covered by the Hierarchy of Controls for Work at Height".*

Of the 15 submitters that selected, "both individuals and PCBUs", only six made comments. Four referenced the PCBU having the same responsibility as an individual. Scaffon Ltd submitted that it would help address some unsafe practices occurring within the scaffolding industry.

Question 6.15

There were 40 submitters who answered this question and all except seven selected to retain the 5 metre threshold. Two (Sky and a private individual) were "unsure", and three (Ports of New Zealand, Contact Energy) did not select an option. Ports of New Zealand and a submitter from the construction sector referenced the need for all scaffolding to be erected by competent personnel. Contact Energy referred to the Australian Model Regulations.

Oji Fibre Solutions and one other were the only submitters to select "raise threshold to 6 metres" but without substantive rationale. Oji Fibre Solutions submitted, "…but more importantly, bring the training and regulations in line".

Of the 32 submitters in support of the 5 metre threshold, two were from the agricultural sector and two from the manufacturing sector and another was Regional Facilities Auckland (from the amusement and theme parks sector) and five were from the energy sector. There were 14 submitters from the construction sector including Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Scaffon Ltd and Edge Protection NZ Ltd. Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand commented:

> *"SARNZ and RANZ believes individuals should require a certificate of competence to erect, alter, dismantle or directly supervise the erection, alteration or dismantle of scaffolds with any components higher than 5 metres or that are covered by the NZQA NZ Certificates in Advanced Scaffolding, or NZ Certificate in Suspended Scaffolding. As per the current regulations, the 5 metre height should be measured to the highest component of the scaffold, or the height of the fall from the highest platform, whichever is the lowest".*

Question 6.16

There were 31 submitters who answered this question. This included one from the agriculture sector (Core H&S Ltd), one from the manufacturing sector, the Ports of New Zealand from the transport and freight sector, Regional Facilities Auckland from amusement and theme parks, six from the energy sector including Genesis, Mercury and Contact Energy and Methanex. There was also the New Zealand Institute of Safety Management and the Council of Trade Unions. The Council of Trade Unions submitted that, "[C]urrent levels of scaffolding competency and WorkSafe initiatives should be supported in the regulations".

There were 14 submitters from the construction sector including Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, and Universal Homes Ltd.

There were 15 submitters who responded "yes", that the current classes of basic, intermediate and advanced scaffolding certificates of competence reflect the levels of competency required by the industry. Only six left comments, two of them being from those in the sector. Edge Protection NZ Ltd said that the system "...has worked for years…" and one scaffolder submitted that, "the current classes of basic, intermediate and advanced scaffolding certificates of competence reflect the levels of competency required by the industry".

Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand shared a view on the status quo submitting, like the Council of Trade Unions that the current competency framework should be reflected in the regulations:

> *"SARNZ believes the current classes of certificates of competence (Elementary, Intermediate, Advanced, Suspended) should be maintained. These classes are different from those set out in the HSE Regulations 1995 which refer to basic, advanced and suspended. The classes in the regulations refer only to the type of equipment used (prefabricated, tube and coupler, suspended), this approach was limited in its application and out of date with industry practice. The current classes can be cross-referenced to specific applications set out in the regulations for compliance. Importantly, the classes of certificate of competence recognise the competence of the certificate holder to complete work at the three levels of complexity, regardless of the type of scaffold system (equipment) being used".*

Needing to account of changes to the nature of scaffolding and scaffolding systems was a key theme of those submitting against the current certificates of competency. Four submitters selected "no", with the New Zealand Institute of Safety Management submitting a review was needed driven by changes to scaffolding systems. This was similar to the view expressed by Genesis Energy which submitted:

> *"Certificates reference basic, intermediate and advanced – the Scaffolding in NZ Good Practice Guidelines reference a number of differing elements including light duty, medium duty, heavy duty, special duty etc. There needs to be alignment in training and competency to relevant classes of scaffolding and proprietary systems".*

Seven submitters were "unsure" with only Universal Homes Ltd leaving a substantive comment similar to that of the New Zealand Institute of Safety Management New Zealand and Genesis Energy:

> *"There are so many systems out there now, does the competency cover a specific scaffolding system or does it cover general competence?"*

Question 6.17

There were only 11 submitters who answered this question; almost all being from the construction sector (eight submitters) or the energy sector (two submitters). There was one from the manufacturing sector – that wished to remain anonymous which submitted on the need to, "[U]pdate unit standards to include tube and clip scaffolds". Taking account of new and or propriety systems was also referenced by three other submitters (Methanex, one scaffolder and a construction sector submitter that wished to remain anonymous) with two others similarly suggesting that the certificates of competency might need to reflect the type of scaffolding (Contact Energy and Universal Homes Ltd).

Scaffon Ltd submitted:

> *"Only Intermediate & Advanced are required. Much of the Intermediate course is learned during the Elementary segment of training and the additional requirements can be assessed and recommended by the employer through their own Qualified CoC mentoring program in-house".*

The Roofing Association of New Zealand was firm in its submission:

> *"The current stepped system of qualifications and certificates of competence is world class and works well. It is vital to the scaffold and broader sector that this system is retained".*

Question 6.18

There were 29 submitters who answered this question about who should authorise competency for scaffolders. Scaffolding, Access and Rigging New Zealand was nominated by 11 submitters, including the organisation itself, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, Edge Protection NZ Ltd, and Contact Energy.

Contact Energy also suggested an Industry Training Organisation (ITO). An ITO or New Zealand Qualification Authority recognised organisation was mentioned by three submitters other submitters (four in total) including Auckland Council and Auckland Regional Facilities.

Other choices suggested were:

- the regulator - which had five nominations including two scaffolding businesses and the New Zealand Institute of Safety Management
- other trained and competent scaffolders - which had four nominations, including the Ports of New Zealand, Mercury Energy and two construction businesses that wished to remain confidential.

Oji Fibre Solutions submission echoed some of those received in response to question 6.17 about proprietary systems:

> *"Competency framework must be included in training in the specific type of scaffolding, i.e. not a universal competency, but a scaffold-specific system competency. Requirements to become a certifier of competency must be determined, including qualifications, experience, etc".*

Retain the existing notification requirement for scaffolding work but review inspection requirements

6.19	Who should check scaffolding installations, and how often?
6.20	What competency standard/s should be required for the inspection of scaffolds, bearing in mind the different systems of scaffolding now in use?
6.21	What height or complexity of scaffolding structures should a CPEng (or equivalent) be required to design and/or inspect?
6.22	Should proprietary scaffolding systems and components be registered designs of high-risk plant (see section 5.2)?
6.23	What heights and/or types of scaffolding should be notifiable to WorkSafe?

Question 6.19

There were 35 submitters who answered this question, which actually contained two parts – one about a system checking role and one about a timeframe. Not all submitters answered both parts of the question with the most responses (29) being about the role.

Submitters included one from the agricultural sector (Core H&S Ltd), three from manufacturing – including Oji Fibre Solutions and one that wished to remain anonymous – and the Ports of New Zealand from the transport and freight sector. Regional Facilities Auckland was the only submitter from the amusement and

theme parks sector, there were six submitters from the energy sector including Genesis, Mercury and Contact Energy and two territorial authorities. The New Zealand Institute of Safety Management and the Council of Trade Unions were also submitters.

There were 15 submitters from the construction sector including Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, and Universal Homes Ltd.

Twenty-two submitters made reference to a competent or certified person being responsible for checking scaffolding including the Council of Trade Unions, Genesis, Mercury and Contact Energy, and Universal Homes Ltd. Other references were made to the person responsible for the scaffold (three submitters) with two submitters making reference to a qualified person independent of the scaffold erector. One submitted that wished to remain anonymous submitted in support of a structural engineer.

"Weekly" was selected by 11 submitters, with one of those suggesting that for scaffolding over 5m, that could be reduced to fortnightly. Another of these submitters suggested that it should also be checked after an alteration or something that might comprise its integrity. This point was also noted by the New Zealand Institute of Safety Management which submitted similarly to Scaffolding, Access, Rigging New Zealand and the Roofing Association of New Zealand:

> *"SARNZ believes the current requirement for all scaffolds to be inspected at least weekly when in use, monthly when not in use, or after any alteration or significant environmental or other event must remain and is essential to maintain a safe workplace".*

Question 6.20

There were 24 submitters who answered this question about competency standards for inspecting scaffolding, with four simply referencing earlier responses (Genesis and Mercury Energy, the New Zealand Institute of Safety Management and Scaffon Ltd). Of the 20 other respondents, there were three from the manufacturing sector, one from transport and freight (Ports of New Zealand) and three from the energy sector. There were 13 from the construction sector. They included Scaffolding, Access and Rigging New Zealand and the Roofing Association of New Zealand, along with Construction Health and Safety New Zealand which all supported the same approach:

> *"SARNZ believes the weekly and other formal inspections on scaffolds that require a certificate of competence to erect, should be completed by a person who holds a certificate of competence equivalent to the complexity of the scaffold. Scaffolds that do not require a certificate of competence to erect can be inspected by a competent person, as defined in WorkSafe Scaffolding in New Zealand Good Practice Guidelines".*

Four submitters including one scaffolder that wished to remain anonymous and Edge Protection NZ Ltd referred to the current system and two submitters – the Ports of New Zealand and one submitter that wished to remain anonymous – referred to the need for competency in proprietary systems. There were three references made to unit standards. A submitter who asked to remain confidential submitted, "[I]f you can build it, you can inspect it…".

Question 6.21

There were 21 submitters who answered this question about scaffolding that might need to be checked by an engineer. They included the Ports of New Zealand that submitted it was a question for engineers to determine! There was one submitter that wished to remain anonymous from the manufacturing sector, four from the energy sector, the New Zealand Institute of Safety Management and the Council of Trade Unions. There were 10 submitters from the construction sector including Scaffolding, Access and Rigging New Zealand, the Roofing Association, and Construction Health and Safety New Zealand.

Scaffolding, Access and Rigging New Zealand, the Roofing Association, Construction Health and Safety New Zealand shared a view:

> *"SARNZ believes the requirement for scaffolds to be designed by a CPEng (or equivalent) should be regulated on a risk based approach. There is currently guidance provided in WorkSafe Scaffolding in NZ Good Practice Guidelines. This guidance is not definitive and there is a lack of consistency in application across industry. Guidance is also available in the NZ Temporary Works Forum Procedural Guidelines".*

The SRANZ view was similar to that of Genesis Energy, which also referenced risk as a criterion. Four submitters reference the status quo and an additional three specifically referenced WorkSafe's guidance. Four submitters referenced structures over 5 metres.

Question 6.22

There were 32 submitters who answered this question about whether proprietary scaffolding systems and components should be registered designs of high-risk plant. Two indicated they were from the manufacturing sector (Layher Ltd and one submitter that wished to remain anonymous), one from the amusement and theme parks sector (Sentinel Inspection Services Ltd) and six were from the energy sector including Genesis, Mercury and Contact Energy. The Kiwifruit Industry Health and Safety Forum submitted, along with the New Zealand Institute of Safety Management.

There were 14 submitters from the construction sector including Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, and Construction Health and Safety New Zealand.

26 of the submitters supported the proposal that proprietary scaffolding systems and components be registered designs of high-risk plant, although few left a detailed comment as to why. If a key theme could be identified, it would be that registration would provide some comfort about the system meeting New Zealand Standards. Scaffolding, Access and Rigging New Zealand submitted, along with the Roofing Association of New Zealand, that:

> *"SARNZ believes all scaffolding systems and their components should be registered designs of high risk plant. SARNZ believes this requirement should be extended to all equipment covered in the Hierarchy of Controls for Work at Height".*

The New Zealand Standard was referenced by two of the three submitters against the proposal, who felt that it already set a baseline for scaffolding. There were also two submitters who recorded that they were "unsure" of the proposal but did not leave any comment as to why.

Question 6.23

There were 27 submitters who answered this question which was about the heights and types of scaffolding that should be notified to WorkSafe. This included 13 from the construction sector, three from the manufacturing sector, one from transport and freight (the Ports of New Zealand), and five from the energy sector, along with the New Zealand Institute of Safety Management and the Council of Trade Unions.

Submitters included Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Construction Health and Safety New Zealand, Oji Fibre Solutions, and Methanex.

With regard to height, 13 submitters supported the status quo of 5 metres. Other alternatives were 4 metres (one submitter), six metres (two submitters) and where the scaffolding required sign-off by an engineer. There were no submissions about named or propriety types of scaffolding.

A number of submitters (nine) questioned the need for, and value of, notifications. This included Scaffolding, Access and Rigging New Zealand which submitted that it was a matter of some debate for its

stakeholders, and that its key submission was that the process be simplified. The Roofing Association of New Zealand submitted:

> *"RANZ believe that the whole Notifiable Work process can be simplified. There should be one Notification submitted for the whole site. In practice there is supposed to be a pre-start meeting where all participants work through and are made aware of hazards on that site. If any of those hazards meet or exceed current Notification thresholds then that information is disclosed to the main PCBU. One notification for the whole site is submitted-listing all elements that require notification. This will drive better practice and awareness at the pre-start stage. If there is a change during progress on that site then a supplementary Notification can be made. A working example could be: A roofing PCBU is undertaking a large commercial reroof. They would submit 1 Notification which would list working at heights greater than 5 metres, Scaffold over 5 metres and the use of a lifting appliance. At the pre-start also the PRMP should also enable better decisions to be made around landing on the correct control method keeping in mind the required hierarchy noted earlier in this submission. Too often we see PPE currently, being defaulted to".*

Construction Health and Safety New Zealand submitted in support of the Scaffolding, Access and Rigging New Zealand and Roofing Association of New Zealand submissions. The New Zealand Institute of Safety Management was also in support of the need to notify construction work as a whole, and for the notification to include the name and registration number of the scaffolder signing-off on the scaffolding.

Assessing the impact

6.24	Based on the proposals in this section on *working at heights and scaffolding*, are there any significant costs and/or benefits that will affect you or your organisation?

There were 30 submitters who answered this question or had part of their submission recorded in response to this question. This included one contractor from the forestry sector (Stubbs Contracting Ltd), 14 from the construction sector, three from the manufacturing sector, the Ports of New Zealand from transport and freight, eight from the energy sector, along with the New Zealand Institute of Safety Management and the Council of Trade Unions.

Submitters included Scaffolding, Access and Rigging New Zealand, the Roofing Association of New Zealand, Universal Homes Ltd, Oji Fibre Solutions, Genesis, Contact and Mercury Energy, Powerco and Methanex.

One submitter that wished to remain anonymous and Methanex submitted that there would be no additional cost, and Contact Energy and Powerco submitted that they already apply a higher standard so did not anticipate any additional costs. This was also the view of another construction sector submitter which also noted the potential benefits to be gained "would outweigh any financial concerns". The benefits were also highlighted by the Council of Trade Unions.

Oji Fibre Solutions also submitted that it applied a high standard and, "…so increased regulation is likely to add cost without any material safety benefit". Genesis Energy also suggested that no additional benefits were foreseen.

The potential cost of registration of designs and scaffolding as high risk plant was noted by some submitters. Others suggested that training and competency requirements might come at an additional cost. Scaffon Ltd submitted:

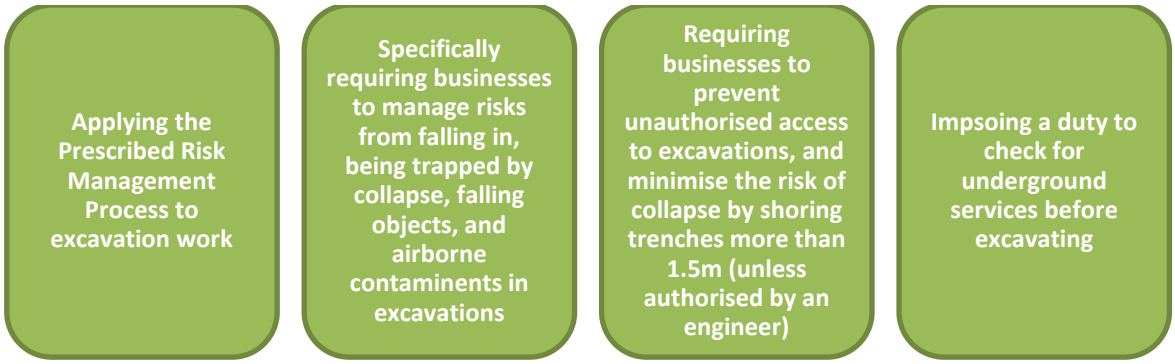
> *"On looking at the questions the compliance burden, retraining and external advice are going to be the main costs. Being one of the larger scaffold companies in the country the compliance requirements impinge on our day to day running of our business. Given that some of our clients are international or are NZ exporting companies they have an expectation that we will operate at a very high standard. We are required to be pre qualified for some of these companies which require us to upgrade our documentation and procedures on any changes to any legislation. This entails a*

significant amount of work by specialist external advisors. We may also be audited by both NZ and International risk management companies to ascertain our compliance with NZ and sometimes international requirements. Any changes to our documentation then requires retraining of our staff to meet the new requirements. The proposals seem to be superficial in nature and will have little impact on Health and Safety of workers, productivity and or business efficiencies".

Section 7: Excavation work

The Discussion Paper sought submitter's views on the merits of replacing the current regulatory requirements for excavations with a risk management approach similar to that in the Australian Model Regulations. It also asked about the levels of competency necessary for workers and supervisors carrying out excavation work, particularly trenching, and whether the regulations should prescribe the qualifications and/or experience they should have.

The proposals for excavation work included:



Summary of submissions received

Retain the existing provision with modifications

7.1	Should the regulations be rephrased to follow a risk-based approach as described above?
7.2	Should the 1.5 metre threshold be retained, removed, or amended for notifications?
7.3	Should the 1.5 metre threshold be retained, removed, or amended for shoring etc?
7.4	Should the 1.5 metre threshold be retained, removed, or amended for fencing?
7.5	Should the depth threshold apply to all excavations, or only trenches?
7.6	Are the current criteria for determining whether shoring is required appropriate?
7.7	Who should determine if the faces of a trench are "of proven good standing quality" or its equivalent?
7.8	Are the current criteria for determining the adequacy of shoring suitable?
7.9	Should the current competency and supervision requirements for excavations be retained, or prescribed further?

Question 7.1

There were 30 submitters who answered this question. This included one from the forestry sector, nine from the construction sector, two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), eight from the energy sector and one from amusement and theme parks. Submitters included Civil Contractors New Zealand Inc, Genesis Energy, Mercury Energy and Methanex. The Council of Trade Unions also submitted.

Twenty-one of the submitters responded "yes" in support of the regulations being rephrased to follow a risk-based approach. Of those in support, their comments highlighted the risks associated with excavation work. Four of the submitters specifically endorsed the Australia Model Regulations including the Ports of New Zealand, Methanex, Universal Homes Ltd and the Council of Trade Unions. Civil Contractors New Zealand Inc noted that, "[I]n some conditions and situations shoring and fencing will be required at depths less that the current thresholds".

Three submitted against the proposal. Of those who did not support the proposal, it was commented that risks "…should be covered by the Prescribed Risk Management Process only". Another construction sector submitter did not submit a yes/no statement but commented in line with that, "…the regulations should be rephrased to follow a risk-based approach".

The other submitter against the proposal said, "[T]he WorkSafe Excavation Safety good practice guide should be converted back to an ACOP". The two submitters that were unsure of the proposal provided no supporting commentary to outline their views.

Question 7.2

There were 29 submitters who answered this question with regard to notifications. This included one from the forestry sector, nine from the construction sector, two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), along with seven from the energy sector. Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, the Council of Trade Unions and E tū Union.

Fifteen of the submitters responded "retain". They included the Council of Trade Unions. E tū Union did not provide a retain/amend/remove response but commented that it, "…supports a duty to check the location for underground services and notification to WorkSafe for all construction workers involving excavation work over 1.5 metres in depth. A method statement should be prepared with operator/worker participation and submitted to WorkSafe".

Others in support of retaining the 1.5m threshold did not provide substantive comments to support their views. Two commented that the status quo was well-known. One construction sector submitter noted that the height could result in, "entrapment up to average chest height".

Two submitters selected "amend" the current threshold. One submitter that wished to remain anonymous proposed that it should be amended to one metre. Conversely, Mercury Energy did not select an answer but proposed that the threshold should be deeper. Neither submitter provided a rationale for their view.

Three submitters selected "remove" and Construction Health and Safety New Zealand provided a rationale. It was that, "…a similar risk based approach to heights would be better".

Question 7.3

There were 27 submitters who answered this question. This included one from the forestry sector, nine from the construction sector, two from the manufacturing sector along with seven from the energy sector. Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, and Methanex. The Council of Trade Unions also submitted.

Seventeen submitters responded "retain" the 1.5 metre threshold for shoring. They included the Council of Trade Unions, the New Zealand Institute of Safety Management and five submitters from the energy sector including Genesis and Mercury Energy. Submitters did not provide any detailed rationale for their views. A submitterwho wished to remain anonymous submitted that, "Any excavation over 1.5m should be benched, battered, shored or otherwise certified as safe".

Two construction companies submitted to amend the proposal. Universal Homes Ltd suggested a lower threshold could be considered. The other suggested including, "…work that involves bending over which will have the same effect as working deeper than 1.5m".

Of those who submitted to "remove", all commented that a risk-based approach should be taken. These submitters included Civil Contractors New Zealand Inc and Construction Health and Safety New Zealand, along with a private individual.

Question 7.4

There were 29 submitters who answered this question about retaining the 1.5 metre threshold for fencing. This included one from the forestry sector, eight from the construction sector, two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), along with eight from the energy sector.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Genesis Energy, Mercury Energy, and Methanex. The Council of Trade Unions also submitted.

Sixteen submitters responded "retain" in support of the proposal without any substantive comment on their rationale. One energy sector submitter that wishes to remain anonymous commented to, "[K]eep consistency".

The Dunedin City Council submitted that, "[A]ccess to excavations of any depth should be restricted or prevented by controls appropriate to the level of risk. Appropriate controls could include fencing, cones and other safety barriers. Specific consideration is needed for at risk groups such as the very young, elderly and mobility impaired". The Council's view was echoed by the seven submitters that recorded "amend" with all proposing a lower threshold. One commented that, "[A] person can break a leg in a 300ml hole". Risk was also the rationale for the two submitters that recorded "remove" and suggested a move to a risk based approach.

Question 7.5

There were 28 submitters who answered this question about the depth threshold applying to all excavations. This included one from the forestry sector, nine from the construction sector, and two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), along with eight from the energy sector.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Powerco, and Methanex. The New Zealand Institute of Safety Management and the Council of Trade Unions also submitted.

Of the 14 submitters in support of the depth threshold applying to all excavations, only Powerco provided a substantive rationale being, "…to ensure consistency and to remove any potential for confusion".

Civil Contractors New Zealand Inc commented that, "[O]ther types of excavations may need shoring and fencing and should be covered by the move to a risk-based approach in all cases". Construction Health and Safety New Zealand also submitted the need for a, "…duty to manage the risk for all excavations".

One submitter noted that quarries should be an exception to the proposed requirement and another noted the need to have the words "and deeper than it is wide" removed. This later submitter suggested that the depth threshold should only apply to trenches, along with two other submitters including one submitter that wished to remain anonymous which commented that they were, "[H]igher risk in a collapse".

Question 7.6

There were 24 submitters who answered this question about the appropriateness of the current criteria for determining if shoring is required as part of an excavation. This included one from the forestry sector, nine

from the construction sector, and one from the manufacturing sector (that wished to remain anonymous), one from transport and freight (the Ports of New Zealand), along with six from the energy sector.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Genesis Energy Ltd, Methanex, and the New Zealand Institute of Safety Management.

Thirteen of the submitters responded "yes" that the current criteria for determine whether shoring is required is appropriate. No submitter provided a strong rationale as to their view. Of the three submitters that responded "no", two referenced the need for more certainty. Their comments echoed two other submitters, that guidance could be improved.

Of the three submitters that were "unsure", Universal Homes Ltd commented, "[I]t still seems to create confusion as it does not encourage a risk management approach. Clear directions on requirements will eliminate any incorrect or lazy assumptions".

Dunedin City Council submitted that the Ministry of Business, Innovation and Employment should consider, "…introducing a requirement for PCBUs to assess ground conditions in addition to depth when determining whether shoring is required". Another submitter also reference geotechnical risk.

Question 7.7

There were 23 submitters who answered this question about assessing the quality of trench facings. This included eight from the construction sector, two from the manufacturing sector, and six from the energy sector.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, and Mercury Energy.

Of the submitters than answered this question, 13 specifically referenced a "competent person". Mercury Energy submitted that this could be defined as, "…a person with a minimum of 5 years' experience and qualifications". There were 10 references to engineers, mainly geotechnical engineers (with one mention each of a structural and a civil engineer). Dunedin City Council and another submitter referenced the need for education and training.

Oji Fibre Solutions suggested that the determination should be made, "…as part of the Prescribed Risk Management Process. One size will not fit all".

Question 7.8

There were 23 submitters who answered this question about determining the adequacy of shoring. This included eight from the construction sector, two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), along with six from the energy sector.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Universal Homes Ltd, Genesis Energy Ltd, Methanex, Dunedin City Council and Ports of Auckland.

Fourteen of the submitters responded "yes" that the current criteria for determining the adequacy of shoring are suitable. There was only one substantive comment, from the Ports of New Zealand, that said:

> *"[T[he current criteria are detailed and prescriptive. In addition, your Discussion Document outlines that the recorded deaths relate to asphyxiation or contact with underground services or plant rather than a collapse. This indicates to us that shoring is generally currently well carried out when done in accordance with the current criteria".*

The two submitters that answered "no" both submitted that further specificity was required. Of the four that submitted "unsure", none provided a reason for their response.

Question 7.9

There were 26 submitters who answered this question about competency requirements. This included one from the forestry sector (the Forestry Industry Safety Council), eight from the construction sector, and one from the manufacturing sector (that wished to remain anonymous), one from transport and freight (Ports of New Zealand), along with 13 "others" including eight from the energy sector.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Universal Homes Ltd, Genesis Energy Ltd, and Powerco. The New Zealand Arboriculture Association Inc also submitted.

There were 11 submitters that selected "retain" the current competency and supervision requirements for excavations. Only one, Civil Contractors New Zealand Inc, provided a substantive comment that, "[E]xcavation competency standards for workers and supervisors should not be regulated due to the wide range of competencies required depending on the site, type of machine and type of excavation. Industry based competency has been developed and should be utilised and part of the risk management".

There were six submitters that selected "prescribe further", with only Universal Homes Ltd making any further comment. It submitted, "[I]t does need some framework that would give greater confidence that the person is in fact competent. The "experienced" component is too weak and may not give upstream PCBU's the confidence the person is as competent as they claim to be (you only have a person's word to go on)". This position was similar to the Dunedin City Council which submitted, "…we encourage MBIE to consider including a specific requirement for supervisors to have been trained in (and to have obtained an appropriate, nationally-recognised qualification in) identifying potentially unstable ground".

The Ports of New Zealand submitted, "[W]e agree with the current graduated system as prescribed in the ACoP for the different levels of risk associated with the excavation, but that the ACoP needs to better define the recommended competency by listing actual recognised qualifications".

Powerco submitted that, "[W]e are unsure about the introduction of competency/supervision requirements for excavations as this will impose additional costs to our contractors. The benefit however, is that it may help reduce the number of service line strikes which is an ongoing concern for our business and the utilities sector in general".

The Forestry Industry Safety Council was against the proposal. It submitted:

> *"[W]e **oppose** more stringent levels of competency for forestry excavation work. There is simply no justification for operator licencing or higher levels of training for such works. As such we also oppose the suggestion that prescribed qualifications and/or experience would be necessary for un-shored excavation work as set out in Sec 24(2) of the H&S in Employment Regulations 1995".*

Create an explicit duty to identify underground services before excavating

7.10	Should regulations create an explicit duty to obtain current underground services information before excavation work commences?
7.11	Who should the duty or duties apply to?
7.12	What form should the duty or duties take?

Question 7.10

There were 28 submitters who answered this question about creating an explicit duty to obtain underground services information. This included nine from the construction sector, two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), along with eight from the energy sector.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Powerco, Dunedin City Council and the New Zealand Council of Trade Unions.

The majority (24 submitters) responded "yes" in support of the proposal, including four of the five energy suppliers that responded to this question. Powerco submitted, "This will reduce the number of incidents and subsequently reduce costs to network businesses. We think a duty should apply to the party undertaking the physical works/breaking the ground".

Civil Contractors New Zealand Inc noted that, "It is good practice and is already included in the National Code of Practice for Utility Operators' Access to Transport Corridors (the Code) which is a legislated requirement under the *Utilities Access Act* 2010".

One energy sector submitter did not provide a reason for submitting against the proposal while another energy sector submitter said that, "Night time emergency work would not be able to comply…". These were the only two submitters that selected "no" against the proposal.

Question 7.11

There were 24 submitters who answered this question about who should hold the duty to identify underground services. This included nine from the construction sector, two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), along with five from the energy sector.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Oji Fibre Solutions, Genesis Energy Ltd, Methanex, New Zealand Institute of Safety Management and the New Zealand Council of Trade Unions.

The majority of submitters commented that the Person Conducting a Business or Undertaking (the PCBU) should be responsible for obtaining current underground services information before excavation work commences. However, there was some commentary on which PCBU should be made responsible on sites where more than one person was present.

Placing the duty on the PCBU undertaking the excavation work was referenced by seven submitters. The alternatives submitted were; the PCBU with management control (three submitters) or the PCBU with "the most influence".

Comments were made on the reliability of information, this was echoed by submitters and also in consultation meetings. Six submitters made some reference to the need for an asset owner to maintain and provide accurate information. Again, this feedback was similar to that received in the consultation meetings.

Question 7.12

There were 22 submitters who answered this question about the form of duties. This included eight from the construction sector, two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), and five from the energy sector.

Submitters included Civil Contractors New Zealand Inc, Construction Health and Safety New Zealand, Methanex, New Zealand Institute of Safety Management and the New Zealand Council of Trade Unions.

The submitters' comments reflected a general theme that some form of documentation should be gathered and assessed before digging commenced (eight submitters). The Dunedin City Council provided the most fulsome response, submitting:

> *"The PCBU with management or control of a workplace where excavation work will take place could be required to obtain a pre-dig information package from a prescribed central information repository or list of utility providers and keep it on site. We encourage MBIE to define criteria for determining which excavations the requirement would apply to. We also*

encourage MBIE to investigate how existing services such as beforeUdig (www.beforeudig.co.nz) could be used to assist with implementation of this proposal".

The "beforeUdig" reference was also made by another submitter (that wished to remain anonymous). Genesis Energy mentioned the "Guide for Safety with Underground Services" and another referenced WorkSafe's Excavation Safety Good Practice Guidelines (GPG).

Assessing the impact

7.13	Based on the proposals in this section on *excavation work*, are there any significant costs and/or benefits that will affect you or your organisation?

There were 19 submitters who answered this question. This included one from the forestry sector (Stubbs Contractors Ltd), six from the construction sector, two from the manufacturing sector, one from transport and freight (the Ports of New Zealand), and five from the energy sector.

Submitters included Universal Homes Ltd, Oji Fibre Solutions, Genesis Energy, Mercury Energy and Powerco, and the New Zealand Council of Trade Unions.

No submitters provided any specific costings related to the proposals in this section. However, were three that clearly stated the proposals would come at a cost. Oji Fibre Solutions (OJIFS) submitted the same answer at it had to previous, similar questions that, "OjiFS is already committed to eliminating or, where that is no reasonably practicable, minimising risks to people involved in excavation work, and so increased regulation is likely to add cost without any material safety benefit". In comparison, Genesis Energy submitted that, "there will potentially be costs for additional training or competency requirements. Benefits: safer excavation outcomes and improved ability to ascertain competency for excavation activities".

Of the eight submitters that suggested there would be no cost, the majority also commented that this would be the case if the status quo was retained with one specifically commenting, "…there is a significant cost to positively locate services. Service drawings are not accurate. If that is fixed, then cost to locate where the service actually is would be reduced".

Section 8: Offences and transitional arrangements

This section of the discussion paper sought feedback on the breaches of duties for which "on the spot" fines could be issued. It also asked submitters to comment on any transitional issues that might arise from the proposals in the documents and for any other comments they might like to make.

Infringement offences

Summary of submissions received

8.1	Which of the proposed requirements in this paper should be infringement offences, and why?

Twenty-two submitters responded to this question with a number of those responding that they did not consider it appropriate to offer a view on the possible infringements. Beyond this, no clear themes emerged from the responses. A submitter involved in materials lifting said unlicenced operators should be infringed. Another from the sector commented similarly and added in that infringements should be issued for:

- non-compliance against requirements to wear harnesses and other PPE
- inspection non-compliances against failures to undertake certifications and inspections.

Infringements for plant falling outside required certification requirements was submitted by Sentinel Inspection Services Ltd and another submitter referenced a failiure to comply with inspection requirements. Two submitters referenced failures to gain or maintain competencies should be infringed. There were also references to the failure to use restraints and to use guarding features as intended.

Scaffolding, Access and Rigging New Zealand submitted:

> *"The scaffolding sector has ongoing issues with unauthorised alteration of scaffolds by users as well as failure to check scaffolds according to accepted practice. Infringement offences of "unauthorised alteration of scaffolding or other plant used in the hierarchy of controls for working at height" and "failing to check scaffolding or other plant used in the hierarchy of controls for working at height" could be used on individuals and PCBUs and would be a strong deterrent for current poor behaviour".*

Three submitters commented that "minor" offences should attract infringement fees but did not provide any detail as what might constitute such offences. One submitter that wished to remain anonymous said all the proposals should attract infringement fees.

Transitional arrangements

Summary of submissions received

8.2	Will any of the proposals in the discussion paper need an extended period of time to allow duty holders to comply (ie beyond when any new regulations are proposed to come into effect)? Which ones, and why?
8.3	Are there any other transitional issues that you think should be considered?

Few submitters formally responded to these questions. However, all feedback about the transitional arrangements identified throughout the submissions has been pulled together and analysed under these questions (unless otherwise identified).

Of the submissions on transitional arrangements, three submitters did not believe that any transitional time would be required to implement the proposals in the discussion paper, while three others commented that an extended transitional timeframe would be required. Those submitting in favour of an extended timeframe included Contact Energy and the Motor Industry Association. The Ports of New Zealand also commented to this effect in response to question 4.20:

> *"While there would be realised safety benefits, the large and complex plant and equipment operated in the Port industry would require significant investment to either upgrade or replace if regulations dictated significant change. This would also require an extended time period to enable PCBU's to plan for and implement the required upgrades".*

The proposals that received the most commentary with regard to the need for an extended transition time were for the plant design register and the central register of high-risk plant. Transitional arrangements with regard to high-risk plant are discussed in section 5. However, in response to section eight, five submitters commented specifically on these proposals, including Mercury Energy which submitted:

> *"…it will take time to influence international manufacturers to conform to the new requirements. In addition, the piece of machinery required might be critical to a high-risk plant and may not have gone through the registering process. We would recommend an exemption process to be put in place for situations such as these".*

Concern was also expressed by submitters about the number of competent inspection personnel available to support the implementation of the proposals to register and inspect high-risk plant. One submitter from the fisheries sector noted the "limited number of competent persons" and the New Zealand Institute of Safety Management commented similarly, "many of the proposed new requirements will create the need for specialist expertise to implement. Detailed planning will be required to ensure there is a pipeline of people with the required skills to meet increased demand ie for equipment inspectors and certifiers".

There were three submitters that referred to the need for transitional process to for the proposals regarding guarding and other safety features. They included a forestry contractor (that wishes to remain anonymous). One lifting sector representative commented on the need for an appropriate transitional timeframe that also motivated towards change:

> *"Proximity detection systems are relatively new in their development. Some are not yet robust enough, others relatively expensive and the optimal 'platform solution' is not beyond concept testing currently. An extended timeframe, 3 – 5 years, will allow the existing partial solutions to be refined and achieve market viability and the optimal system types to evolve. Without the timeframe, the development of these systems will be significantly slower than otherwise".*

Submitters commented that the transition period would need to be long enough to enable the development of information and education materials, and any Approved Codes of Practice or Best Practice guidance material must be relied upon. At least three submitters also made specific reference to time being required to train staff. One forestry contractor noting, "[S]ome PCBU's will need time to get staff training implemented, build and implement on site training programmes".

Some of the transitional matters drawn to attention by submitters included the need to ensure that communication of any changes was active, and did not rely on web-based information alone. It was also noted that communications, information and education would have to consider those with English as a second language.

Section 9: Further comments

The electronic survey that accompanied the Discussion Paper invited online submitters to provide any final comments on the costs and benefits of the proposals, and any general comments. These questions were not included in the physical or electronic versions of the Discussion Paper.

Summary of submissions received

- Do you have any further comments on the costs and benefits to you of the overall proposed changes?

Few submitters formally responded to this question. However, feedback about the possible costs and benefits received in responses and identified throughout the submissions has been pulled together and analysed here (where it was not provided in response to the specific question at the end of each section).

Of note, at least three submitters from the energy sector commented that the possible costs were proportionate to the potential benefits. This reflected a general theme in the sector's submissions that awareness of, and responses to, risks and hazards was already of a high standard in their sector. Transpower New Zealand Ltd commented:

> *"Whilst the changes proposed in the document impact our business operations and those of our major service providers, we do not consider these more specific requirements to be overly onerous. We are confident that we have the appropriate health and safety control measures in place, and already apply a high standard of compliance and control to all safety critical activities".*

The Employers and Manufacturers Association Northern Inc. reflected on the post impact of embedding health and safety change, echoing the feedback received from the scaffolding sector and others in consultation meetings:

> *"We have heard from sectors that sometimes changes if embraced totally and embedded into the business model do over time become cost effective and in some cases results in cost savings. A case in point is residential scaffold. The initial costs are high but over time we have heard reduces build time by a couple of days. A win win situation".*

Federated Farmers of New Zealand submitted that, "[I]f adopted, successful implementation of the proposed changes will require providing effective support for farmers". This echoed feedback received on specific proposals about their potential implementation costs.

One submitter noted that, the "[C]ost of compliance will always be less than cost of fines or of life". On the flipside, one submitter from the model engineering sector commented that there, "[T]here will only be cost and no benefits". There was concern from that sector that if their plant was deemed high-risk, "…the compliance costs involved will be far in excess of what a voluntary hobby club and its members could afford" (Auckland Society of Model Engineers Incorporated).

- Do you have any other general comments you would like to make?

Few submitters formally responded to this question. However, general feedback received in responses and identified throughout the submissions was analysed and is set out in Section 1, under the heading *Some of the key theme identified in the submissions.*

Section 10: Summary of consultation meetings

Detailed below is a short summary of the meetings convened by MBIE as part of the consultation process. A wide range of stakeholders to the proposals in the Discussion Paper were invited to attend meetings convened across nine locations. Some meetings had a sector-specific focus and some were open to all sectors.

The summaries are not a verbatim record of the discussions, but highlight some of the general matters raised along with discussions on proposals in the Discussion Paper. Some discussions were more wide-ranging and detailed than others, so the summaries recorded differ in response. They broadly follow the order in which the opportunities, issues and proposals were discussed, so do not always follow the order of proposals presented in the Discussion Paper.

Key themes arising in the meetings include:

- There was feedback from a number of stakeholders about the quality of safety information for imported plant often being poor. Further issues were also noted as to:
  - inconsistencies in existing regulations, when compared against the extended types of modern plant now in use (eg telehandlers) and accepted methods and practices (scaffolding licensing requirements, for instance, which have not kept pace with the current qualifications system)
  - low competency/skills amongst forklift operators
  - persistent problems of poorly guarded machinery and poor lock out controls.
- Gaps in coverage for new types of high-risk plant were confirmed and there was clear support for their inclusion from affected sectors and specialist groups concerned.
- It was emphasised as important that requirements appropriately balance adequate clarity and specificity with the need to ensure that innovation is not compromised. Guidance was viewed as having a central role in assisting duty holders with clarifying specifics of the regulations.
- Consistency of enforcement was also widely seen as important.
- Proposals for upstream duties attracted particularly strong interest, with almost universal support to the changes proposed. Wider proposals were mostly generally accepted, though there were some mixed views on particular second-order details, with the concept of minimum height-based exclusions (set at either two or three metres) from the proposed hierarchy of controls for construction work generally opposed.
- There was considerable support for the current regulations' requirements for regular inspection of higher-risk plant by competent inspection personnel, and it was consistently expressed that this should be retained and supported in new regulations.
- It was emphasised that current inspection and maintenance processes had arisen from industry practices regularly involving the reconditioning and/or repurposing of plant and that the ability for firms to continue to be able to do this was important, while maintaining safety. The distinction was drawn between some overseas jurisdictions placing more reliance on the design life of plant, rather than regular inspection and maintenance.
- There was support for central registration of items of high risk plant, subject to maintaining intellectual property rights and commercially sensitive information.
- Larger-scale operators of pressure equipment raised concerns and a specialist workshop was organised to develop alternative proposals for these operators.
- Transitional arrangements were highlighted as needing careful consideration, in particular by those from the agriculture sector.

Auckland Central

Meeting: *Wednesday 11 September 2019, 9:30 – 11:00am – Construction-focussed*

There were 11 participants in this meeting, which included representatives from various construction companies and an umbrella sector affiliation body.

There was some discussion about the incorporation of Standards into regulation and the use of other materials such as Approved Codes of Practice (ACoP) and guidance material, and the cost of accessing those Standards that are not freely available. The group also discussed the need for appropriate balance between clarity and specificity on the one hand but also maintaining some flexibility in managing health and safety risk. For example, the group noted that prescriptive requirements for protective devices may not work for all plant, such as vintage plant.

The discussion about plant also touched on the efficacy of the current certification and inspection regimes, and whether they were implemented in a sufficiently robust way. It included specific discussion on the need to inspect scaffolding. There was also commentary that consideration could be given to more scaffolding being considered high-risk plant. It was noted, however, that there needed to be consideration of the timely support needed from engineers to enable this, which PCBUs can have limited ability to access.

The discussion about work at heights also included commentary about the need to review the current competency system for scaffolders, and of the need to encourage improved competency in the sector more broadly.

The group considered that set height thresholds at which controls might be required may be problematic, especially if the set height was at a level that hired plant could extend above. The meeting also discussed excavations and the potential for falls from height as a result of falls into an excavation.

The discussion on excavations covered a range of challenges involved in identification of underground services and who should be responsible for undertaking this activity.

There was general agreement that the proposals for upstream duty holders were appropriate but also some discussion about the challenges in enforcing these duties, especially where duty holders were overseas.

Meeting: *Wednesday 11 September 2019, 12:00 – 1:30pm – Open session*

There were seventeen participants in this meeting, which was open to all sectors and had representatives from the forestry and arborist sectors, amongst others.

There was some general conversation about the potential for overlapping obligations between the health and safety proposals and Land Transport Rules, especially in relation to work vehicles; clarifications were made by MBIE on this matter. Discussion was also had about the usefulness of guidance material such as ACoPs. The forestry ACoP was identified as useful due to its extensive detail. However, the challenge in keeping such materials up-to-date was also discussed.

The group had a conversation about the difference between training and competency, and about how training may often be relied on as a substitute for competency, even where this was not adequate or appropriate to ensure health and safety. It was considered to be questionable whether health and safety practitioners always had the necessary skills and training, particularly with regard to high-risk plant.

Other discussion centred on high-risk plant included the potential for things (not just people) to fall from height and result in harm. This led on to a discussion on the need for training in tower rescue.

The proposal to move to a two metre set height threshold was supported. In contrast, the discussion on excavations included a suggestion that general duties and a focus on outcomes maybe more reasonable than prescribing depth requirements; depth was considered a poor indicator of the level of risk in excavation work. There was also discussion on the challenges associated with identifying underground

services, as service location information was not always up to date. Who should bear the cost of locating and monitoring underground services was discussed, without any consensus reached.

There was broad support in the meeting for clarifying the obligations on upstream duty holders. The group discussed that they would need to be accompanied by guidance material to support implementation. It was also commented that the end-PCBU or user should not reasonably be expected to identify a design flaw with a plant or structure.

The group discussed the challenges with implementing upstream duties where duty holders were overseas. They considered a register could be a good way for information to be collected and for duty holders to demonstrate compliance with their obligations.

It was recommended that the concepts of "alterations" and "uses other than intended" be carefully defined to avoid risks of perverse outcomes from suppliers and/or others evading particular responsibilities.

Finally, there was some conversation about the importance of consistency in the enforcement approach. The groups suggested there were variations in the standards expected of different workplaces. Differences between forestry and arborist operations were raised as an example.

Manukau

Meeting: *Thursday 12 September 2019, 10:00 – 11:30am – Open session*

There were seventeen participants in this meeting, which was open to the public.

The group had a conversation about the benefits of specificity versus the issues that might arise with regard to a PCBU's ability to be flexible and innovative in its risk management. It was suggested that guidance materials were the best way to provide prescriptive detail, and emphasised by the group that regulations and guidance do not replace the need for good business practice, auditing and enforcement. Participants considered broader factors – such as lack of enforcement and reticence and/or barriers dissuading those affected from raising issues with health and safety – also had some bearing on the issues arising under the status quo..

The group also discussed the issue of "competent persons" undertaking certifications and inspections. There was concern about variable competence and robustness of work, with the group going on to discuss two avenues for delivering improvements::

- licensing schemes, to enable liabilities to be more appropriately re-assigned
  as an alternative, competency requirements set by regulations for certain roles (but, with a need to avoid being too prescriptive in training requirements to moderate costs).

The group's discussion on upstream duties referenced the approach taken in the United Kingdom of setting out the information that must be provided on the sale of plant. It also touched on the need to consider the interplay between the requirements and "as is" provisions, which may be looked to by sellers to circumvent these obligations.

There was discussion on the complexities and challenges of enforcing upstream duties for duty holders overseas, with the group seeing these as largely falling on New Zealand duty holders as a result. The group then asked for clarification on what might be responsible for setting the standards for upstream duty holders and determining that designs were appropriate. They emphasised industry expertise would be important.

There was further discussion about the need to balance regulation and cost when the group considered the proposals for mobile plant. They thought there needed to be greater prescription to provide greater clarity for businesses. They discussed the current competency requirements for forklift operators, questioning whether operators were always properly trained and whether there was a need for mandatory licencing. Opinions were mixed as to the causes of these issues – whether arising from poor regulations or otherwise (such as a lack of compliance and enforcement).

The group questioned whether there was any value for businesses in relation to the proposal to register high-risk plant, and also why amusement devices might be captured due to their different ownership and use environments. This led to a conversation about whether registration requirements would apply to temporary structures. Participants then went on to discuss how the register might work. This included what amount or level of "alteration" would require re-registration, and if there would be a suspension function for temporarily de-commissioned plant. There was discussion about discouraging the alteration of high-risk plant by those without appropriate expertise.

The group noted that consideration would need to be given to how accessible the register of high-risk plant would be to balance the protection of confidential trade information with business efficiency.

In the discussion on protections for excavations, the group considered that there should be a risk-based approach that was not prescriptive or depth based. They discussed some of the limitations with the current obligation which do not require due thought to be given of the site around an excavation, and considered the proposal with regard to identifying underground services good practice. However, the group noted that service information was not always up to date and that an obligation may be usefully supplemented with additional requirements on the service providers, land owners, or (as a final back up option) the local authority to hold this information.

Meeting: *Thursday 12 September 2019, 12:00pm – 2:00pm – NZOAD-focused*

There were 32 participants in this meeting which had a focus on amusement devices.

There was extended discussion on the importance of ensuring the competency of amusement device operators, with a range of options for this discussed. They included using the qualifications framework and/or unit standards, and developing a Certificate of Competency which could be delegated to Industry Training Organisations (ITOs). There was also discussion about mechanisms for ensuring competency through an induction system rather than a 'ticket', similar to what happens with mine workers. This was presented as an option for addressing the often seasonal and temporary nature of the work.

The group discussed the territorial authority permitting system for their temporary devices, commenting that in most cases these permits were not believed to add value from a health and safety perspective. The authorities' approaches were seen as variable.

MBIE outlined the proposals for high-risk plant for the group, pointing out how they might affect their sector. This was to support the sector's further thinking and feedback by way of the submissions process. A number of questions were raised about the scope and coverage of the proposals, with a number of devices being of specific interest to the group. They included magic carpet rides, barrel trains, trampoline parks, adventure parks, nylon-based ice rinks. There was discussion about the emergence of virtual reality as an amusement trend.

The group questioned why amusement devices were included in the proposals as they considered they caused little harm. It was noted however that the need for the regulation of amusement devices was not in question under the review, and that these devices had the potential to result in catastrophic harm, such as occurred at the Dream World amusement park in Queensland in 2016.

The group considered that design verification could work for their sector, noting that producer statements would need to be reviewed by a suitably qualified engineer. It was also noted that the existing regulations only talk about mechanical requirements for devices but the design verification process could result in structural and electrical expertise being needed. The group considered that there may be limits to their ability to access the specialist advice needed.

Meeting: *Thursday 12 September 2019, 3:00 – 4:30pm – open session*

There were nine participants in this meeting, which was open to the public. The meeting discussed the issue of upstream duties and how PBCUs can be assured that plant and products will meet claims. To ensure effectiveness, the group suggested that there may need to be overlapping duties, and strong enforcement.

There was broad support for the proposals with regard to high-risk plant, and a number of questions about how the registration process might work in particular, whether the individual component of plant might need to be registered.

The discussion on work at heights included that duties and obligations must be made clear, and that attention needed to be paid to work below five metres. The group considered that a graduated set of obligations may be more appropriate than setting a specific height threshold at or above which obligations were imposed. A similar discussion was had in relation to excavation, with the group questioning whether the one and a half metre threshold was appropriate given the risks that could be associated at a lesser depth.

With regard to excavations, the group considered that it was appropriate to place the burden of identifying underground services on the landowner.

Hamilton

Meeting: *Friday 13 May 2019, 12:30 – 2:00pm – Open session*

There were 28 participants in this meeting, which was an open session and included a number of representatives from the construction sector, agricultural sector and energy sector.

There was some early feedback from participants that PCBUs need to ensure the health and safety of workers no matter what the level of risk is to the worker, even those at the lower end of the scale. This was acknowledged and officials asked how regulations could be used to trigger appropriate risk management and noted that, there appeared to be a need for more consistency in managing risk from mobile plant. This led to a question about the need for forklift operator certification, and for a focus on other areas of work related to “lifting” and heights, including abseiling.

The conversation on upstream duties included commentary about the need for enforcement, and the challenges in applying and enforcing duties where relevant New Zealand Standards were out of date. There was a suggestion about enabling reliance on International Standards, and other mechanisms upstream duty holders and PCBUs could use to show compliance. The group noted that updating Standards came at a cost, including to business and sectors, which would need to be considered.

The group went on to discuss issues with suppliers on-selling “as is” equipment that is not compliant with New Zealand Standards. It was noted that there was market for this equipment and businesses may be exposing their workers to risk where they purchase “as is” and don’t undertake necessary upgrades. Participants did not have any specific suggestions for preventing this issue.

The group also discussed high-risk plant, with a number of participants seeking further detail about the potential scope of the register and the wide scope for interpretation of minimum standards, along with variability in tests, certifications and inspection processes. One participant from the amusement sector expressed concern about the potential cost of the certification and registration process, and there was discussion about whether it would limit the supplier market. The group’s discussion highlighted that there was confusion about obligation at the moment, and between different sectors.

There was general discussion about a risk-focused approach to risk management that enabled businesses / PCBUs to decide risks the risks and mitigations for themselves. In relation to working at heights, it was noted that risks encountered at heights lower than two metres, and that those risks would be the same regardless of the duration of the work.

The discussion on excavations saw one participant question the effectiveness of overlapping duties in Australia, and broad support for clarity of duties and obligations. Discussion was had about what duty holder was most likely to hold information about underground services, and also about the value in excavations being notified to WorkSafe.

Ashburton

Meeting: *Tuesday 16 September 2019, 10:00 – 11:30am – Open session*

There were fourteen participants at this open session, with the agricultural sector having strong representation.

There was some general discussion that regulations do not change behaviour and would need to be supported by other materials, including guidance. Officials were asked when the regulations were to be expected, and there were comments that agricultural sector would need an appropriate transitional period in which to implement the changes, especially in relation to plant and any requirements for guarding and other safety features.

The discussion on plant had a focus on the participants seeking to understand how the proposals might impact farming plant, and expressing their desire for clarity. There was discussion about how to determine whether an individual was competent to operate plant, and whether there was a need for competency assessments and/or licensing.

There was broad support in the group for roll over/crush protection on quad bikes and discussion about seat belt requirements, including whether they might apply over a certain speed limit. The group questioned whether opposition to such proposals may predominantly come from manufacturers.

The group considered that small businesses were at greater risk than large business when it came to upstream duty holders meeting their obligations. Challenges with enforcing upstream duties were discussed, but there was general agreement on the need to focus on these duty holders.

There was a lot of interest in discussing working at heights, and the variety of situations and approaches that might be found on a farm. There was some discussion on the Prescribed Risk Management Process and hierarchy of controls, and the need for guidance in a farming environment. One participant commented that the absence of guidance was not an excuse for poor practice.

The group also briefly touched on the outcomes of using the Australian Model Regulations and requested clarification on whether it had been successful where implemented in the states and territories. They also touched on the challenges in identifying underground service and who might be responsible for this.

Christchurch

Meeting: *Tuesday 16 September 2019, 2:00 – 3:30pm – Open session*

There were 28 attendees at this meeting, which was an open session with high representation from the construction and energy sectors.

The group asked a range of questions about the proposals for mobile plant and how they might apply, especially to specialty plant. There were also questions about how the use of the Australian Model Regulations have worked in Australia (noting New Zealand's comparatively high incident rates). These questions were combined with a number of "poor practice" stories delivered by participants; including one highlighting the difficulty of apply and enforcing upstream duties. These questions were answered by officials who noted it was seeking feedback on a set of minimum and enforceable standards that could be applied to all plant.

There was quite a lot of discussion against the idea of short duration exemption for working at height with reference to "two minute jobs", and the fact that it only takes a minute to have an accident. There was also

discussion about the use of proprietary trestles for single story work, though some doubt was expressed about this from some attendees.

Questions about the statistics led to a conversation on the need to balance the needs of large operators who seek flexibility to apply a risk assessment process and small operators that want to be told what they need to do, and the need to be clear about the problem to be addressed. There was comment that everyone needs to take risk management seriously.

There was some discussion about whether the construction industry was being singled out given there were also risks from height in other sectors. This led on to consideration as to whether a hierarchy of controls could be applied in the agricultural sector and what the alternative may be. There were also questions as to the definition of "construction" and it was noted that feedback was being sought on this.

There was limited conversation on the proposal for excavations, but some questions about why quarries were excluded (instead being considered separately, through MBIE's mining regulations review). And also a question about trenches with a complementary comment that there were people other than engineers who could assess the security and safety of a trench. It was noted that feedback was being sought on this matter.

Invercargill

Meeting: *Wednesday 19 September 2019, Meeting eleven: 1:30 – 3:00pm – Open session*

There were 16 people at this open session meeting, half of which were interested stakeholders.

The meeting started with a general discussion about the need for new regulations to be supported by up-to-date and timely guidance materials; with the guidance coming out alongside the regulations. It was pointed out that this was most important for small to medium sized operators who did not have the same resources as large operators. Feedback was also given that large amounts of WorkSafe's current guidance materials are out of date.

A stakeholder noted WorkSafe investigation reports they have seen show poor guarding as an issue, along with poor procedures around lock-outs and poor training on use of plant. The group were unclear whether these were issues with the status quo – the current regulations and policies – or with how they were being implemented. There was some further conversation on the need for guidance and also for enforcement of obligations.

The discussion on mobile plant included whether there could be a standard risk assessment process or risk matrices for determining the best controls and suitability of operator protective devices, similar to prescribed risks and prescribed remedies already in some guidance. MBIE officials noted that there would be guidance on this matter to support the new regulations.

The group noted the separate New Zealand Transport Agency consultation on safety on roads – Road to Zero –was underway.

In the discussion on high-risk plant, examples were given of non-compliance with the current obligations, with officials reflecting that it was their understanding the status quo was, generally, working well. MBIE representatives summarised the proposals for change and this led to questions about the implementation of the potential changes and how the design verification process might work. Feedback was given about the need to be very clear about who the regulator will be and under which regulatory regime obligations would be applied. An example was given of both building inspectors and WorkSafe inspectors looking at the safety of a lift and holding different views about the matter.

During the discussion on upstream duties, the group noted the European Union have similar requirements in place, but it is unclear whether they have worked. It was noted it was hard to enforce outside your own jurisdiction, as per general feedback from other sessions.

This meeting also raised a question about the focus on construction in the proposals for working at heights and questioned how the proposals related to changes under the Building System Legislative Reform Process . Some participants noted that Australia is ahead of New Zealand in 'designing out' the risk of heights, resulting in the removal of the need to work at heights at all for some tasks. It was noted that the HSW Act will always defer to the Building Act 2004 where there are requirements there around heights relating to permanent buildings and structures.

The group questioned what the new set height threshold will be. Officials noted this was a matter for consultation and there are no pre-formed views. It was then noted that by the group that the requirements for managing work at heights need to recognise the risks of harm from falling is still there below two metres and below one metre.

The meeting ended with an extended discussion on licensing. Officials noted a review of the regulations on licensing of high-risk work would be in the next phase. The group commented that industry forklift training is inadequate and larger companies are choosing to invest in developing their own training as a result. They noted when industry training is sub-standard, there needs to be the ability for industry to more easily identify competent trainers to do the training themselves, rather than use the currently available industry training. They considered that unit standards provide more of a baseline of training for operating plant, but they do not necessarily give adequate skills for workers to operate plant safely.

The group noted the different industry training considerations needed for operating high-risk plant such as gantry cranes. They also discussed where changes in equipment, technology and the environment may warrant more unified training. Good examples from Australian suppliers were pointed out, in these cases the PCBUs that supply new plant also passed on information and training materials.

Rotorua

Meeting: *Friday 20 September 2019, Friday 10:00 – 11:30am – Open session*

This meeting was attended by approximately 30 participants, with a range of submitters from forestry and wider sectors.

The discussion on working with plant included some commentary about incorporating relevant Standards into the regulations, and discussion as to whether ACoPs and Standards could provide more appropriate mechanisms for setting out obligations than regulations. The group touched on the need to ensure that flexibility was retained, to enable risk management to evolve and keep pace with change. There was also some discussion about the need to enforce any obligations that were put in place.

A question was raised about how the proposals for mobile plant might apply if there were no human operators, and where the operator might be a computer and the passenger a human; clarifications were made by MBIE on this matter.

Unique and bespoke plant was also a topic of conversation in relation to high-risk plant, with concerns that there may be challenges with the registration from this plant. The group discussed the potential registration timeframe and voiced concerns of the potential for significant compliance costs associated with the proposal, especially if individual items of plant required registration. There was also some concern expressed about people 'shopping around' for certifiers.

The discussion on upstream duties included the challenges of ensuring compliance, and being able to access all the information needed from overseas suppliers. The group noted that the "as is" provision is problematic and new owners sometimes modify or alter this plant in a way that is not intended – creating a real challenge for inspectors.

There was general agreement to the proposals for working at heights, but as with other meetings, some concerns about the possible option of a set height threshold, as it was noted some of the most serious falls

occur below this height. Some preferred a risk based approach, as this would limit the ability of people to manipulate the threshold, for example, by setting up scaffolding at 1.98 metres.

The Australian approach to guidance was discussed favourably and there was also discussion about best practice guidance developed for the forestry sector, with some participants noting it was well-covered.

There was not any substantive discussion about excavations, though it was clarified in response to a question raised that some refinements to the current four exemptions to the one and a half metre rule were being considered.

Wellington

Meeting: *Friday 2 August, 12:00 – 2:00pm - Agriculture and forestry focus*

There were 24 participants at this meeting early in the consultation process. It included consultation on officials' plans for consulting with the agricultural and forestry sector.

The meeting started with a conversation about the proposals related to risk management and the hierarchy of controls, and the suitability of language around "low" and "high" risk. There was also discussion as to whether regulations, in addition to the primary duties in the HSW Act, would address the causes of fatalities and harm. It was suggested that what most PCBUs wanted was clear and instructive guidance on their obligations and that WorkSafe guidance might also be an appropriate mechanism for providing this.

The group also raised was the importance of defining of what plant will fall into each category (of low and high risk) and questioned whether it was appropriate to apply controls according to type of plant or the particular use it was being put to (which can be more relevant to risks created). They considered that there was a need to build flexibility into definitions to allow future developments in plant (such as a move to automation).

In the discussion on upstream duties, it was noted that while a significant amount of plant is still imported, agriculture likely had a higher proportion of New Zealand designed and manufactured than other sectors. It was also discussed that any controls restricting users' capacity to alter plant must be balanced against the need to allow innovation. The need to enable innovation and emerging technologies was raised again later in the meeting as well. The suggestion was made (based on Australian Model Regulations) that when altering the designer is required to consider how alteration will impact health and safety.

The group considered that engineers would likely include a health and safety assessment as part of their usual process, and discussed how designers might be encouraged to do the same. No conclusion was drawn. But, it was noted that the skill level and qualification of designers was a matter for consideration.

A question was posed as whether New Zealand should adopt International Standards for design verification, as it was pointed out that New Zealand's small market could lead to withdrawal by international importers and suppliers who did not want to meet boutique or unduly onerous requirements. The group considered that many importers currently wrongly assume that if plant meets United States and/or European Union Standards it will also meet New Zealand Standards.

It was suggested that if there was a desire to impose New Zealand Standards, a more efficient and effective system to consider where overseas certification may be sufficient is needed. And, that any upstream duties on importers and suppliers would need to consider the significant variation between capacity of business importers and one-off purchasers.

The group's discussions also covered the registration of high-risk plant and how it could operate for plant that is regularly decommissioned and re-commissioned or installed at a new location. It was noted if the requirements were complicated some might choose not to comply. The discussion also included whether the register could be a mechanism for sharing information about risks and incidents arising from particular items of plant.

There was some concern expressed about a lack of qualified or competent persons who might verify plant, especially in some regions and discussion about the PCBU also having to sign-off the plant. The group considered a robust framework and checklist should be provided to support the verification process.

The group discussed the matter of quad bikes and noted that there is great interest as to the form that any new obligations and controls might take. They also advised that exemptions to the general obligation for mobile plant should be avoided as they would impact on the clarity of the obligations and may create incentive to modify the plant to fit within an exemption category. The cost of retro-fitting plant might also create such an incentive.

There was the suggestion that some manufacturers might withdraw from the market if new controls were imposed on mobile plant. Quad bike manufacturers were specifically mentioned as an example, although there was not complete agreement on this point, with it being noted that WorkSafe guidance regarding quadbike rollover protection has led to further encouragement of these protections.

There was some discussion on the need to support any new regulations and obligations with resources for enforcement. And, a question about why silos (in agriculture) were not mentioned.

One purpose of the meeting was to seek feedback on MBIE's engagement plan for the consultation process. As well as suggesting some possible locations for consultation workshops, the group fed back that there would be value in consulting with importers and suppliers of plant.

Meeting: *Monday 23 September, 9:00 am– 1:00pm – Agriculture-focus*

There were 10 people at this meeting which had an agricultural focus.

The discussion started with the role of regulations versus other ways of imposing obligations and providing guidance, such as ACOPs and best practice guidance and the need to provide for innovation and minimise exceptions to obligations. There was also a discussion of the role training could play in minimum risk and harm.

The group discussed the overall need to increase clarity of obligations but also noted the constraints on some organisation's ability to comply with obligations, and risks of non-compliance where obligations appeared too onerous. The development of guidance and tools such as checklists were discussed as mechanisms to avoid this.

Moving back to the issue of training, the group discussed that training is not the only measure of competency and that experience on the job counts. The agriculture sector members of the group suggested there would likely be push-back from the sector against any mandatory training requirements. A suggestion was that each PCBU should sign off each worker's competency to undertake the job they were doing. The group also discussed if licensing was an effective means of determining competency, and the confusion between the two concepts. It was also asked how competency might be monitored in a small farm context.

The discussion on mobile plant had a focus on quad bikes with some participants expressing some resistance to the regulations encouraging the use of rollover systems due to concerns as to whether there is sufficient evidence of efficacy and risks of unintended consequences (eg from the withdrawal of manufacturers from the market). These participants questioned whether the regulations should instead focus on helmets, seatbelts in tractors, and licensing and training schemes, along with pushing for the uptake of new safety technologies, for example GPS monitoring of speed and incline, and roll alerts.

The group discussed passenger protections and how prescriptive the regulations and obligations should be. It was noted that if attachments to tractors were considered mobile plant there would be a need to protect passengers on these – potato harvesters were given as an example. It was noted that the agriculture sector likely will want to avoid compliance costs where possible. There was conversation about less varied farming environments in Australia being a factor in the difference in regulatory approach taken to New Zealand.

It was discussed that the current upstream duties were not working for agriculture sector and there were issues with modified plant and new plant without appropriate safety features. But it was considered that requiring information about "intended use" may be of limited value as duty holders may offer restrictive definitions in order to limit their own liabilities. There was also a concern that this might restrict users' ability to repurpose plant. This discussion also included commentary on the need to be clear about how compliance with any required Standards could be demonstrated and what Standards were relevant and applicable in New Zealand. It was noted that independent verification would increase costs.

The group discusses the challenges of accessing independent experts or competent people where there was a requirement for them to sign-off plant, noting that this may lead to non-compliance. They considered that the alteration of plant was not an issue in itself, but could become one when plant was used by someone less experienced. The suggestion was to create a check-list that farmers could use to understand what must be disclosed if altered plant was on-sold. It was also noted that any information provided must be in a form that is understandable to end-users.

The discussion on working at heights included a comment on the need for regulations for working in silos. In this case, there was an intersection between working at heights and working in enclosed spaces. The "ticketing" of work in enclosed spaces was seen to be impracticable and it was considered there was a need for specific guidance on a range of matters including the age of access ladders, lack of anchors for harnesses, ensuring appropriate harnesses were used (amongst other things). It was noted that WorkSafe was doing some work in this space but was awaiting the outcomes of the regulations review before completing a good practice guide.

The duty to identify underground services was discussed by the group as being appropriate, but they noted it should be paired with increased onus on parties laying services to update maps. This was similar to feedback received in other meetings. A preference to exclude most agricultural excavations from the definition of "construction work" was also expressed noting that there was potential for overlap with *Resource Management Act* 1991 obligations.

The other matters raised by the group included the importance of ensuring no undue restrictions on family-based learning in a farming environment, and perceptions of variations in health and safety enforcement.

Meeting: *Tuesday 24 September, 9:00am – 1:00pm – Construction-focus*

There were 19 participants at this meeting that included a number of the sector's representative bodies.

The group discussed the role of New Zealand Standards, and the need to keep them up-to-date and make them available free of charge if there was to be a greater reliance on them or if they were incorporated into the regulations. The view was that the regulations themselves should not be overly prescriptive in order to retain flexibility, and that any change would need to be accompanied by improved access to information and education.

There was a discussion about competency, and the need to provide clear definitions of "competent persons" with each proposal that would rely on such persons. It was noted that education and training did not always result in competency, and that the use of engineers may not always be necessary or provide the best outcome where a person with a lower qualification and appropriate experience also may be competent. Concern was also expressed about the ability to access competent persons (for instance, for scaffolding sign offs) and that there were a limited number of organisations and individuals currently signing-off on high-risk designs and plant.

On the topic of mobile plant, the group suggested there were a number of practical implications to be worked through for isolation (ie plant segregation) controls, as an outcome of the Prescribed Risk Management Process, to be manageable . It was noted that operators and workers created fewer issues and risks than those moving around the plant's operating zone. By referencing it in regulations, members of the group suggested that segregation might be better considered as a protection by duty holders, and a hierarchy of controls could be applied. It was noted that duties should apply to both the site owner and the

PCBU on site. It was noted, however, that there would need to be flexibility associated with such an obligation – such as for cranes with large boom areas.

The group considered that there needed to be motivation and encouragement towards plant upgrades as new safety technologies emerged, and that regulations may not be necessary to address health concerns – such as noise and air quality,as these were being managed as part of good practice.

With regards to mobile plant, the group considered that there should be a more broad focus than just forklifts as there was now a range of plant capable of lifting. There was discussion about whether forklift should be high risk plant but a counter-comment that it was not so much the forklifts creating risk and harm but the site and competency of users. It was considered that making certification of operator compulsory would come at little cost, as most thought it was compulsory anyway – but concerns were raised about the quality of training and the need to address the risks from other plant that lifts.

There was support for the design verification and high-risk plant register but reference to some of the limitations of the Australian model. Concern was expressed that verification requirements were often not stringent enough to provide assurance of quality and that there was a need for quality control at the point of manufacture. The issue of available certifiers was also raised.

The discussion on upstream duties was reflective of other meetings. The group noted that upstream duty holders have a poor understanding of their duties and it was challenging to obtain reliable information. There was comment that any provisions regarding information requirements would need to consider how to with sale of mixed inventories, where parts developed to varied standards (this was common in scaffolding). It was also noted that some supplier did not have the skill or expertise to understand the information necessary and relevant to their product. It was also noted that designers might not have the expertise to consider the health and safety risks of their design.

The group also touched on the provisions for “as is” sales, noting they were problematic as buyers were not provided sufficient information to make informed decisions about whether to take on liability.

The group considered whether there should be a reliance on Standards with regard to the marketing of a product, but noted complexities associated with this, including the potential to confuse claimed compliance with a Standard and a product that had been tested against a Standard. It was also noted that there was potential for fraud in the process.

There was support for general application of Prescribed Risk Management Process for working at heights and a suggestion that the regulations should include a specific provision to provide protection from falling objects. It was considered that the proposed hierarchy of controls could be made less specific to reflect the wider range controls that may be appropriate with a suggestion that it only be required if there was no accepted solution provided through guidance materials.

The group considered that set height/time thresholds were not appropriate as they would come with perverse outcomes that didn’t recognise risk could occur at any height and in any timeframe. The group also suggested that they did not take account of the range of factors that might lead to decisions on the best approach to managing risk. It was noted however, that if the set height threshold was removed there would need to be specific guidance on how to determine and manage risk.

The group suggested that a focus on “construction work” may not be appropriate where risk might occur in other sectors. It was commented that it was risk that should drive the obligations, not the type of work.

There was considerable discussion about the requirements for scaffolding certificates of competence and the need to address the perceived lack of enforcement for parties that did not meet their obligations. It was suggested that the current categories of certificates (basic/intermediate/advanced) need to be adjusted as they have not kept pace with industry practice.

The group considered a duty on PCBUs to identify underground services appropriate, citing as their reasoning current issues with attempts to pass this to contractors. However, it was considered that this would ideally be paired with a duty imposed on asset owners, to encourage better probing into where services were located. Participants suggested there may also be challenges if the information was not all held on one location and a lack of clarity about how to access the information. It was noted that there is an existing Australian Standard setting out the competency required to make the checks and the methodology to be used, but trials have proven the process expensive.

Meeting: *Wednesday 25 September, 9:00 – 1:00pm – Forestry-focus*

There were 12 participants at this meeting, which included representatives from a variety of forestry sector groups.

The group indicated a preference for industry-led solutions, supported by the general duties under the HSW Act, citing a lack of clarity as to the relative benefits of regulatory reforms and risks of impeded innovation as their reasoning. The group suggested the existing Approved Code of Practice (ACoP) and Good Practice Guides (GPGs) developed by industry were working well, although they needed updating, and that headline statistics in the Discussion Paper alone were not sufficient evidence of the need for regulatory changes. There was discussion that some operators' poor performance may in part be due to due to weaknesses of communication, and monitoring and enforcement, rather than regulations. It was suggested that any change to the regulations would need to be combined with market pressure on these operators to improve.

The group supported the general application of Prescribed Risk Management Process to plant noting the current, widespread perception that it already applies. Some of the proposed hierarchy of controls were considered impracticable in the forestry context, including guarding at the rear of an excavator where workers will only be for short durations, and where guarding will be liable to be damaged. There was also some concern expressed about the practicality of lifting plant controls and the group considered that movement warning systems (lights/noise) on mobile plant were likely not appropriate and add little value. They thought that automation and changing practices mean people were increasingly not near operating equipment, and sought clarification on "cab operator protective devices". It was thought that a focus on protective device could detract from an overall focus on safety, noting that what was considered a "good" device might change or evolve over time. It was considered that tipping was generally the biggest risk of forestry plant. However, that it was a competency and operational issue, rather than due to faults with the plant and improved tethering technology was addressing the issue.

Competency and operational issues were also mentioned in the discussion on high-risk plant and the group indicated it favoured specific exclusions for forestry equipment, as are in place in Australia. Examples of specific equipment and how it was managed were given in support of this. It was also suggested that plant with no operator should also be excluded.

A number of queries about the proposals for high risk plant then followed, including whether there would be benefit from moving current plant inspection requirements from the ACoP to regulations and how the verification and registration requirements will consider the design life of plant, considering a significant amount of aged plant in the sector. Concern was also expressed that manufacturers may tend to be conservative with design life, without having sufficient regard to actual safety concerns. A query was also raised about whether plant as a whole (or whole system) would be registered or if the requirements would apply to individual components. It was suggested that there should be inspection of systems as a whole.

There was discussion about the competency requirements necessary to support the verification and inspection of high-risk plant, and the suggestion that a "competent person" to sign off each installation and that there may be a need to licence operators as opposed to individuals for this work.

With regard to upstream duties, the group noted that there are issues with the standard of imported plant and in the variation across Standards that might apply. It was noted that due to this, any attempts to set a minimum standard for New Zealand would likely involve costs.

The group did not consider that the proposals for working at heights would have a significant impact for the forestry sector, but suggested that that there should be a move away from detailed specificity to enable the development of industry best practice. It also did not consider that the proposals for excavations would have a significant impact and expressed support for the existing one and a half metre obligations. There was support for the proposed duty to identify underground services but recognition of the significant variation in the ability to access information.

Meeting: *Friday 27 September 2019, 9:00am – 1:00pm – Manufacturing and Engineering focus*

There were 17 participants at this meeting, including representatives from various companies and a sector affiliation body.

The group discussed how umbrella duties could provide flexibility and avoid stifling innovation but acknowledged that they can make it difficult for duty holders to know how to comply with their obligations. It was considered that changes to the regulations would need to be paired with good communication as to obligations and detailed supporting material such as ACoPs. Cases studies were also suggested as a useful tool.

It was commented that PBCUs had to take ownership of health and safety, and take meaningful action, as awareness of an obligation or a standard did not automatically mean that steps were taken to implement them. It was also noted that Standards needed a supporting process for them to be implemented and there was discussion of the need to keep Standards current and address those that are out-dated.

The group considered that the general duties for lifting plant were appropriate as the current coverage was ad hoc, noting the example of telehandlers. They also considered that general duties were appropriate for mobile plant as there was a need to future-proof developments in this plant and that there is wide range of such plant and a range of safety matters and controls that might be relevant.

The bulk of the discussion was focused on proposals for high-risk plant and there was support for the expansion of the definition beyond the current pressure equipment, cranes and passenger ropeways regulations. It was noted that there was the need to address a number of issues with current inspection processes including:

- annual inspections place high reliance on previous inspectors having checked installation fully – a means to further check previous inspection information and data may be valuable
- duty holders being able to “shop around” for inspectors, potentially seeking those that may have a “lighter touch” than an alternative and more rigorous inspector
- that certain plant (such as vehicle hoists) are inspected by the parties who also maintain and service them, meaning there is little independence in the process.

The group considered that accepting overseas design verification was probably not appropriate without further checks and noted that there may be requirements in New Zealand that did not apply overseas; seismic performance was given as an example of this and was considered of relevance to a wide range of high-risk plant including pressure vessels, amusement devices, tower cranes and vehicle hoists. Variation of practice across the Australian states and territories was also noted as a concern.

The group asked how particular registration requirements will be and contrary to some of the other comments about system components, noted that if they were not required to be verified they would likely not be designed to the same standards as plant that required design verification.

They also asked about the information that should be made visible on the register and pointed to the Maritime New Zealand system and a good example allowing different people access to different

information. There was some discussion about enabling access to information about any history of issues with a plant, along with manufacturer-held information that a user cannot easily obtain or measure themselves. There was also some discussion about intellectual property and the ability to access this information when it was no longer restricted.

The group considered that there needed to be more specificity in the qualifications required to be verifier and the need to consider how overseas qualifications would be recognised. It was considered that the current process was not transparent. It was thought the proposals would result in an increased verification workload for certified engineers. There was also some discussion about whether there should there be a specific requirement to have competent person involved in design of high risk plant and the main hazards for of high risk plant which were considered to be:

- vehicle hoists: inappropriate mounting, mechanical failures
- hydraulics: structural
- side-swing lifts: structural – largely due to poor use
- straddle/boat carriers: technically are cranes.

The current upstream duties did not support the provision of necessary information about plant and many manufacturers considered that plant specifications were their intellectual property. This led to the problem of importers and supplier not being able to access information. There was also an issue of assumptions being made that plant that met an overseas standard of some sort met the required New Zealand standard.

The issue counterfeit plant was also raised along with the sale of plant “as is”. It was noted that plant can be significantly reconfigured from the original design and therefore buyers should be responsible for considering if it is still safe for use in their circumstances.

Finally, the group discussed overlapping duties with the *Building Act* 2004, specifically in relation to passenger ropeways – with local authorities treating gondolas the same as domestic access cable cars. There was concern that the current system was flawed.

Appendices

Appendix one: list of submitters and sectors

Organisation or individual	Sector	Perspective of submitter
Agricultural Leaders' Health and Safety Action Group	Agriculture	Sector representative
AJ Hackett Bungy New Zealand	Amusement and theme parks	Business
Auckland Adventure Park	Amusement and theme parks	Business
Auckland Council	Other	Local government
Auckland Society of Model Engineers Incorporated (ASME)	Amusement and theme parks	Other
Boulder Park Ltd	Amusement and theme parks	Business
Bureau Veritas New Zealand Pty Ltd.	Other	Other (please specify)
Cambridge Model Engineering Society	Amusement and theme parks	Other (please specify)
Canterbury Society of Model and Experimental Engineers	Amusement and theme parks	Sector representative
Cardrona Alpine Resort	Other	Business
Certification Board for Inspection Personnel Inc.	Other	Other (please specify)
Children's Convention Monitoring Group	Other	Other (please specify)
Christchurch City Council	Other	Local government
Civil Contractors New Zealand Inc.	Construction	Sector representative
Confidential organisation	Construction	Sector representative
Confidential organisation	Construction	Business

Organisation or individual	Sector	Perspective of submitter
Confidential organisation	Other	Sector representative
Confidential organisation	Other	Business
Confidential organisation	Manufacturing	Business
Confidential organisation	Fisheries	Business
Confidential organisation	Other	Other (please specify)
Confidential organisation	Amusement and theme parks	Other (please specify)
Confidential organisation	Other	Business
Confidential organisation	Fisheries	Business
Confidential organisation	Other	Sector representative
Confidential organisation	Fisheries	Business
Confidential organisation	Fisheries	Business
Confidential organisation	Other	Other (please specify)
Confidential organisation	Other	Business
Confidential organisation	Engineering	Business
Confidential organisation	Other	Local government
Confidential organisation	Construction	Business
Confidential organisation	Other	Other (please specify)
Confidential organisation	Construction	Other (please specify)
Confidential organisation	Construction	Business

Organisation or individual	Sector	Perspective of submitter
Confidential organisation	Construction	Business
Confidential organisation	Engineering	Business
Confidential organisation	Construction	Business
Confidential organisation	Amusement and theme parks	Other (please specify)
Confidential organisation	Construction	Business
Confidential organisation	Other	Business
Confidential organisation	Construction	Business
Confidential organisation	Forestry	Business
Confidential organisation	Other	Sector representative
Confidential organisation	Construction	Business
Confidential organisation	Agriculture	Business
Confidential organisation	Other	Business
Confidential organisation	Construction	Business
Confidential organisation	Forestry	Other (please specify)
Confidential organisation	Other	Business
Confidential organisation	Transport and freight	Business
Confidential organisation	General submission	Other (please specify)
Confidential organisation	Other	Sector representative
Consultant	Amusement and theme parks	Other (please specify)

Organisation or individual	Sector	Perspective of submitter
Contact Energy	Other	Business
Core H&S Ltd	Agriculture	Business
Doppelmayr Lifts NZ Ltd.	Other	Other (please specify)
Dunedin City Council	Other	Local government
E Training	Other	Other (please specify)
E tū Union	Other	Sector representative
Edge Protection NZ Ltd.	Construction	Business
EHL Group Ltd	Engineering	Other (please specify)
Electricity Engineers Association	Engineering	Sector representative
Employers and Manufacturers Association Northern Inc.	Manufacturing	Sector representative
Engineering New Zealand	Engineering	Sector representative
Entertainment Production Services Ltd	Other	Sector representative
ETS Engineers Ltd	Engineering	Other (please specify)
Federated Farmers of New Zealand	Agriculture	Sector representative
Forest Industry Safety Council	Forestry	Sector representative
Genesis Energy Ltd.	Other	Business
Highlands Motor Park	Amusement and theme parks	Business
Hilti (New Zealand) Ltd.	Construction	Other (please specify)
Hoist and Garage Equipment	Other	Business

Organisation or individual	Sector	Perspective of submitter
Horticulture New Zealand Inc.	Other	Sector representative
International Accreditation New Zealand (IANZ)	Other	Other (please specify)
Kiwifruit Industry Health and Safety Forum	Other	Sector representative
KiwiRail	Transport and freight	Business
Layher Limited	Manufacturing	Business
LiftX Ltd	Construction	Business
Mahon's Amusements Ltd.	Amusement and theme parks	Business
Manukau Live Steamers Incorporated ADR No 1209	Amusement and theme parks	Sector representative
Meat Industry Association	Other	Sector representative
Mercury	Other	Business
Methanex	Other	Business
MinEx	Other	Sector representative
Model Engineering Association of New Zealand	Amusement and theme parks	Sector representative
Motor Industry Association	Other	Sector representative
Mr Shelf	Construction	Business
National Traction Engine Association	Amusement and theme parks	Sector representative
New Plymouth Model and Experimental Engineering Club Inc.	Amusement and theme parks	Sector representative
New Zealand Association of Metal Recyclers Inc.	Other	Sector representative
New Zealand Council of Trade Unions - Te Kauae Kaimahi	Other	Sector representative

Organisation or individual	Sector	Perspective of submitter
New Zealand Fishing Health and Safety Forum	Fisheries	Sector representative
New Zealand Institute of Safety Management	Other	Sector representative
New Zealand Metal Roofing Association	Construction	Other (please specify)
New Zealand Society for Safety Engineering	Engineering	Other (please specify)
Off Road New Zealand	Amusement and theme parks	Business
Oji Fibre Solutions	Manufacturing	Business
Otago MIniature Road and Rail Society Inc.	Amusement and theme parks	Other (please specify)
Ports of New Zealand	Transport and freight	Business
Powerco	Other	Business
Private Individual	General submission	Other (please specify)
Private Individual	Engineering	Other (please specify)
Private Individual	General submission	Other (please specify)
Private Individual	Other	Other (please specify)
Private Individual	Engineering	Other (please specify)
Private Individual	Engineering	Other (please specify)
Private Individual	Engineering	Other (please specify)
Private Individual	Amusement and theme parks	Other (please specify)
Private Individual	Amusement and theme parks	Other (please specify)
Private Individual	General submission	Other (please specify)

Organisation or individual	Sector	Perspective of submitter
Private Individual	General submission - no specific sector	Other (please specify)
Private Individual	Amusement and theme parks	Other (please specify)
Private Individual	Manufacturing	Other (please specify)
Private Individual	Engineering	Other (please specify)
Private Individual	Engineering	Business
Private Individual	Amusement and theme parks	Other (please specify)
Private Individual	Amusement and theme parks	Other (please specify)
Private Individual	Amusement and theme parks	Sector representative
Private Individual	Transport and freight	Other (please specify)
Private Individual	Agriculture	Business
Private Individual	Construction	Other (please specify)
Private Individual	General submission	Other (please specify)
Private Individual	Engineering	Other (please specify)
Rainbows End	Amusement and theme parks	Business
Randall and Associates	Engineering	Other (please specify)
Recreation Safety Engineering	Engineering	Sector representative
Regional Facilities Auckland	Amusement and theme parks	Other (please specify)
Rhodes Engineering and Design Ltd.	Engineering	Other (please specify)
Rhodes Engineering and Design Ltd.	Engineering	Other (please specify)

Organisation or individual	Sector	Perspective of submitter
Road Transport Forum New Zealand	Transport and freight	Sector representative
Roofing Association of New Zealand	Construction	Sector representative
Ruapehu Alpine Lifts Ltd.	Other	Business
SA	Construction	Business
Scaffcon Ltd	Construction	Other (please specify)
Scaffolding, Access and Rigging New Zealand	Construction	Sector representative
Seen Safety Limited	Other	Other (please specify)
Sentinel Inspection Services Ltd.	Amusement and theme parks	Business
Ski Area Association New Zealand	Other	Other (please specify)
Sky	Other	Business
Smile Inflatables	Amusement and theme parks	Business
Southbrook Traction Engine Club	Amusement and theme parks	Other (please specify)
Southern Architecture Ltd.	Other	Business
Southland Society of Model Engineers	Amusement and theme parks	Other (please specify)
Southland Steam Engine Club	Amusement and theme parks	Sector representative
Steam Traction Society Inc.	Amusement and theme parks	Sector representative
Stubbs Contractors Ltd.	Forestry	Business
Talley's Group Ltd Nelson - Deep-Sea Division	Engineering	Business
Tauranga City Council	Other	Local government

Organisation or individual	Sector	Perspective of submitter
Tauranga Model Marine and Engineering Club	Amusement and theme parks	Other (please specify)
Thames Small Gauge Railway Society Inc.	Amusement and theme parks	Other (please specify)
The Lifting Equipment Engineers Association	Other	Sector representative
The New Zealand Arboricultural Association Inc.	Other	Sector representative
Confidential organisation	Other	Business
Totara Springs Christian Centre	Amusement and theme parks	Business
Transpower New Zealand Ltd.	Other	Business
Universal Homes Ltd.	Construction	Business
Upper Hutt Hire Ltd.	Other	Business
Whangarei Model Engineering Club Inc.	Amusement and theme parks	Sector representative
Workplace Safety Systems Ltd.	Other	Other (please specify)

Appendix two: list of key terms and acronyms

Key terms

Term	Definition
Plant	Includes: • any machinery,vehicle, vessel, aircraft, equipment (including personal protective equipment), appliance, container,implement,or tool • any component of those things • anything connected to any of those things.[4]

Prescribed Risk Management Process	PCBUs must deal with prescribed risks by following the risk management process prescribed in regulations 5 to 8 of the General Risk and Workplace Management Regulations. This process requires businesses to:
	• identify hazards and eliminate risks where reasonably practicable
	• otherwise to minimise risks so far as is reasonably practicable by using one or more of the following control measures:
	  • substitution
	  • isolation
	  • engineering controls
	• if a risk still remains, implement administrative controls
	• if a risk still remains, provide personal protective equipment
	• maintain and review the control measures.

Structure	Means anything that is constructed, whether fixed, moveable, temporary, or permanent; and includes: • buildings, masts, towers, frameworks, pipelines, quarries, bridges, and underground works (including shafts or tunnels) • any component of a structure • part of a structure.[5]
Design	Includes the design of part of the plant, substance or structure; and the redesign or modification of a design (see section 16, *Health and Safety at Work Act* 2015)
Manufacture	Not defined in the *Health and Safety at Work Act* 2015 – we consider that for purposes of section 40, it

[4] Section 16 Health and Safety at Work Act 2015
[5] Section 16 Health and Safety at Work Act 2015

Term	Definition
	means to make something on a large scale using machinery.
Import	Bringing goods to arrive in New Zealand in any manner, whether lawfully or unlawfully, from a point outside New Zealand (see section 16 *Health and Safety at Work Act* 2015, section 5(1), *Customs and Excise Act* 2018).
Supply	Includes supply or resupply of a thing by sale, exchange, lease, hire, or hire purchase, whether as principal or an agent (see section 21 Health and Safety at Work Act 2015) Excludes returning the thing at the end of a lease or other agreement, supply by a person without authority or control, a supply prescribed in regulations.
Install	Not defined in the *Health and Safety at Work Act* 2015 – we consider that for purposes of section 43, it means placing or fixing plant or structure in position ready for use.
Construct	Includes assemble, erect, reconstruct, reassemble, and re-erect (see section 16 *Health and Safety at Work Act* 2015).
Commission	Not defined in the *Health and Safety at Work Act* 2015– we consider that for purposes of section 43, it means operationalising a plant or structure to bring it into working condition.

Acronyms

Term	Acronym
ACoP	Approved Code of Practice
ASME	American Society for Mechanical Engineering
BS	British Standard
CBIP	Certification Board for Inspection Personnel Inc.
COPTTM	Code of Practice for Temporary Traffic Management
CPEng	Certified Practising Engineer
EN	European
EURON	European Robotics Research Network
EWP	Elevated Work Platform
GPG	Good Practice Guide
H&S Policy team	Health and Safety Policy team

Term	Acronym
HSW Act	***Health and Safety at Work Act* 2015**
ITO	Industry Training Organisation
LOLER	*Lifting Operations and Lifting Equipment Regulations* 1998
MBIE	Ministry of Business, Innovation and Employment
MIA	Motor Industry Association
PCBU	Person conducting a business or undertaking[6]
PECPR	*Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations* 1999
PRMP	Prescribed Risk Management Process
ROP	Roll Over Protection
UK	United Kingdom
VSD	Variable Speed Drive
WOF	Warrant of Fitness

[6] Section 17, HSW Act

Legislation and regulations referenced

Health and Safety at Work Act 2015

Health and Safety at Work (General Risk and Workplace Management) Regulations 2016

Health and Safety in Employment Regulations 1995

Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999

Amusement Devices Regulations 1978