



**Government
of South Australia**

SafeWork SA

Elevating Work Platforms

2019 Audit Report

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Executive Summary

From 1 January 2019 to 30 June 2019, SafeWork SA undertook a compliance program focused on Elevating Work Platforms (EWP) following a series of fatal and serious incidents involving EWPs between 2014 and 2018.

SafeWork SA conducted 336 site visits and 261 compliance audits. These audits comprised of 234 EWP audits and 27 systems-only audits (for plant hirers).

A total of 87 statutory notices were issued in response to non-compliance, including 66 Improvement Notices and 21 Prohibition Notices. The largest areas of non-compliance related to missing or inadequate Safe Work Method Statements (SWMS), EWP maintenance, inspections and log book use, and the provision of information, instruction and training relating to the use of EWPs. The industries that received the highest number of Statutory Notices for non-compliance was Building & Construction (23) and Manufacturing (17).

SafeWork SA conducted a survey based on the recommendations made by the State Coroner, from the inquest into Mr Jorge Castillo-Riffo's fatal injury at the Royal Adelaide Hospital construction site in 2014. The survey found that:

- Majority of worksites use spotters, or believe spotters should be used
- Many respondents did not believe fitted control boxes would improve safety
- Less than half of respondents ensured EWP controls were standardised on site
- Most respondents believed standardised controls would improve safety
- A majority of EWPs had retrospectively fitted engineering controls, including secondary guarding, kill switches and dead-man switches.

It is recommended that SafeWork SA undertakes a follow-up compliance program in six months to ensure compliance is being maintained, and that SafeWork SA uses the information within this report to develop educational material for publication on the SafeWork SA website.

EWP Compliance Program

Introduction

The use of EWPs to control the risks posed by working at heights is prevalent in many industries in South Australia and nationally. However, while the introduction of mobile plant can reduce risk factors, it can also present new ones. Specifically, there is an increased risk of crush injury to workers operating from within an EWP work basket.

Several factors need to be considered when using an EWP, including (but not limited to):

- the suitability of the EWP for the task
- whether the work is 'high risk construction work' and requires a Safe Work Method Statement (SWMS)
- EWP positioning and stability
- have operators been trained and/or require a high risk work licence?
- pre-operational checks and ongoing maintenance requirements
- EWP controls and familiarisation with different makes and models
- safe working loads and conditions
- the use of fall protection, such as harnesses
- public safety and working in public places
- risk of collision with other persons, plant or structures (including powerlines).

SafeWork SA regulates compliance with *Work Health and Safety Act 2012 (SA)* ("the Act") and can require Persons Conducting a Business or Undertaking (PCBU) to rectify safety breaches through the issuing of Statutory Notices or prosecution.

Background

In 2014 and 2016, two workers received fatal crush injuries while operating EWPs at the new Royal Adelaide Hospital construction site. In October 2018, a critical incident occurred involving an EWP, where a worker received an electric shock resulting in extensive injuries after the EWP contacted 11,000 volt overhead power lines.

In November 2018, the State Coroner, Mr. Mark Johns, released his findings regarding the Coronial Inquest into the 2014 fatal incident involving Mr Jorge Castillo-Riffo. As part of his findings, the Coroner made a number of recommendations relating to EWPs to SafeWork SA and the Government.

In response to the series of injuries and fatalities involving EWP's and the Coroner's recommendations, the Executive Director, SafeWork SA commenced a six-month multi-industry audit of EWP's (boom and scissor type).

Scope

The scope of the compliance program included all EWP's in South Australia during the period of 1 January 2019 to 30 June 2019 with a work platform height greater than three metres. This covered a range of sector groups including:

- Arborists
- Automotive Servicing and Maintenance
- Building & Construction
- Electrical & Plumbing
- Events
- Farming, Agriculture, Viticulture & Meat Processing
- Laundry Services
- Logistics
- Manufacturing
- Mining & Quarrying
- Plant Hire
- Utilities
- Waste Services.

The audits focused on:

- EWP design
- EWP condition and maintenance
- Competency and authorisation of EWP operators
- Maintenance and currency of training records
- Safe systems of work and documented safety procedures
- Emergency systems and training
- Provision of information, training and instruction to EWP operators.

Plant with an operating platform below three metres was out of scope for this program. These types of EWPs were not being used when the serious incidents occurred between 2014 and 2018. An EWP under three metres (typically known as a 'vertical lift') carries less risk to operators and are generally used in vineyards, retail outlets and for low risk maintenance work.

SafeWork SA addressed all identified non-compliance through issuing of statutory notices.

The objective of the compliance program was to achieve compliance with the Act for EWPs, and educate PCBU's and EWP operators on their Work, Health and Safety (WHS) obligations.

The Operational Guide: Elevating Work Platform Compliance Project (Operational Guide) outlined the process and set the expectation for the compliance program and provided operational information to SafeWork SA employees.

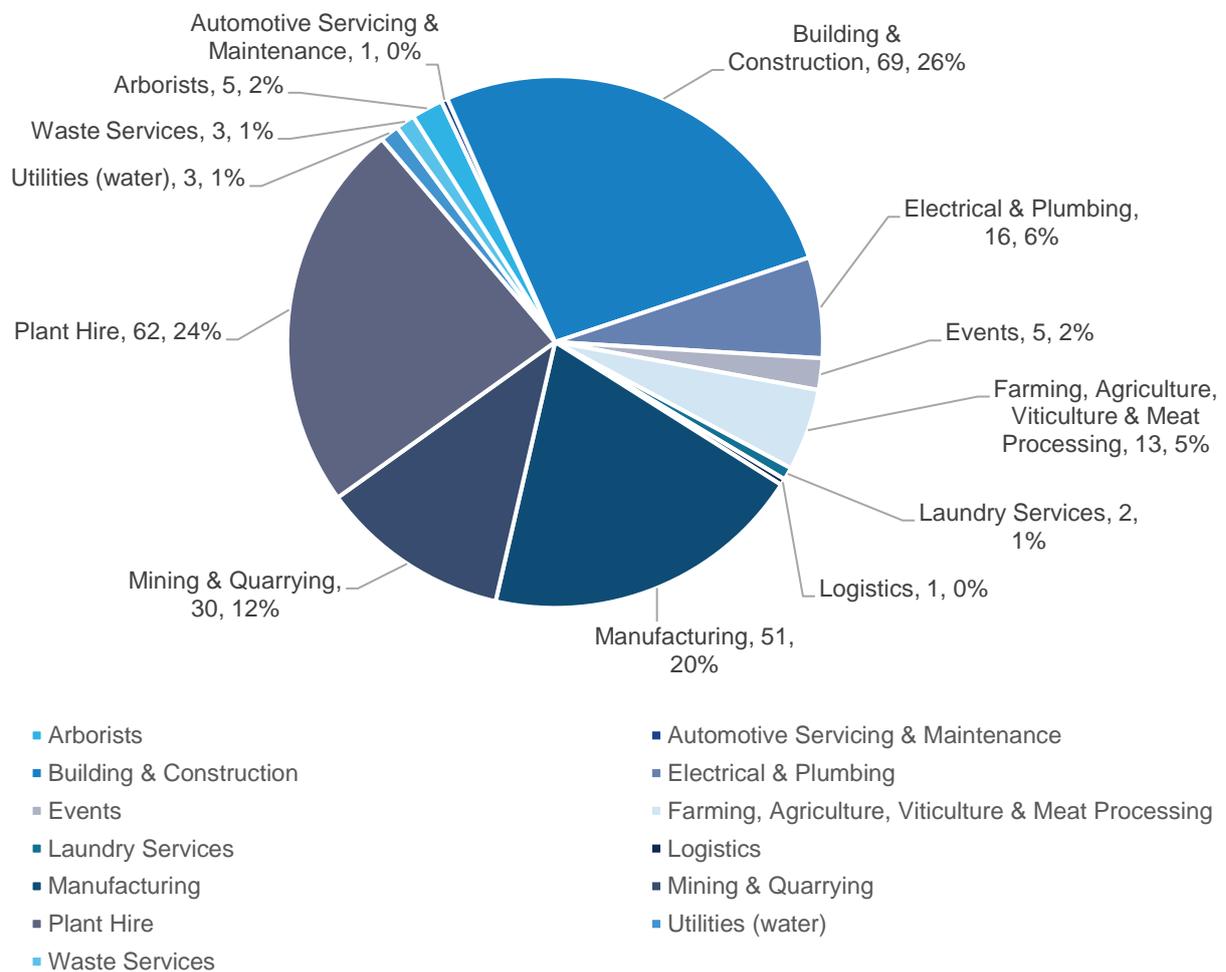
Industry Audits

SafeWork SA conducted 336 site visits and completed 261 EWP compliance audits, including 234 EWP audits and 27 systems audits. Approximately 80% of all audits were concentrated in four industries:

- Building & Construction, 69 audits (26%)
- Plant Hire, 62 audits (24%)
- Manufacturing, 51 audits (20%)
- Mining & Quarrying, 30 audits (11%).

All industries audited are displayed below in Figure 1.

Figure 1: Audits conducted per Industry (including systems-only audits)



PCBU's in the building & construction industry included builders, painters, earth and road workers, engineers (construction), civil construction, glaziers, roofers, scaffolders, fire protection, gyprock finishers, sign installers, crane operators and riggers.

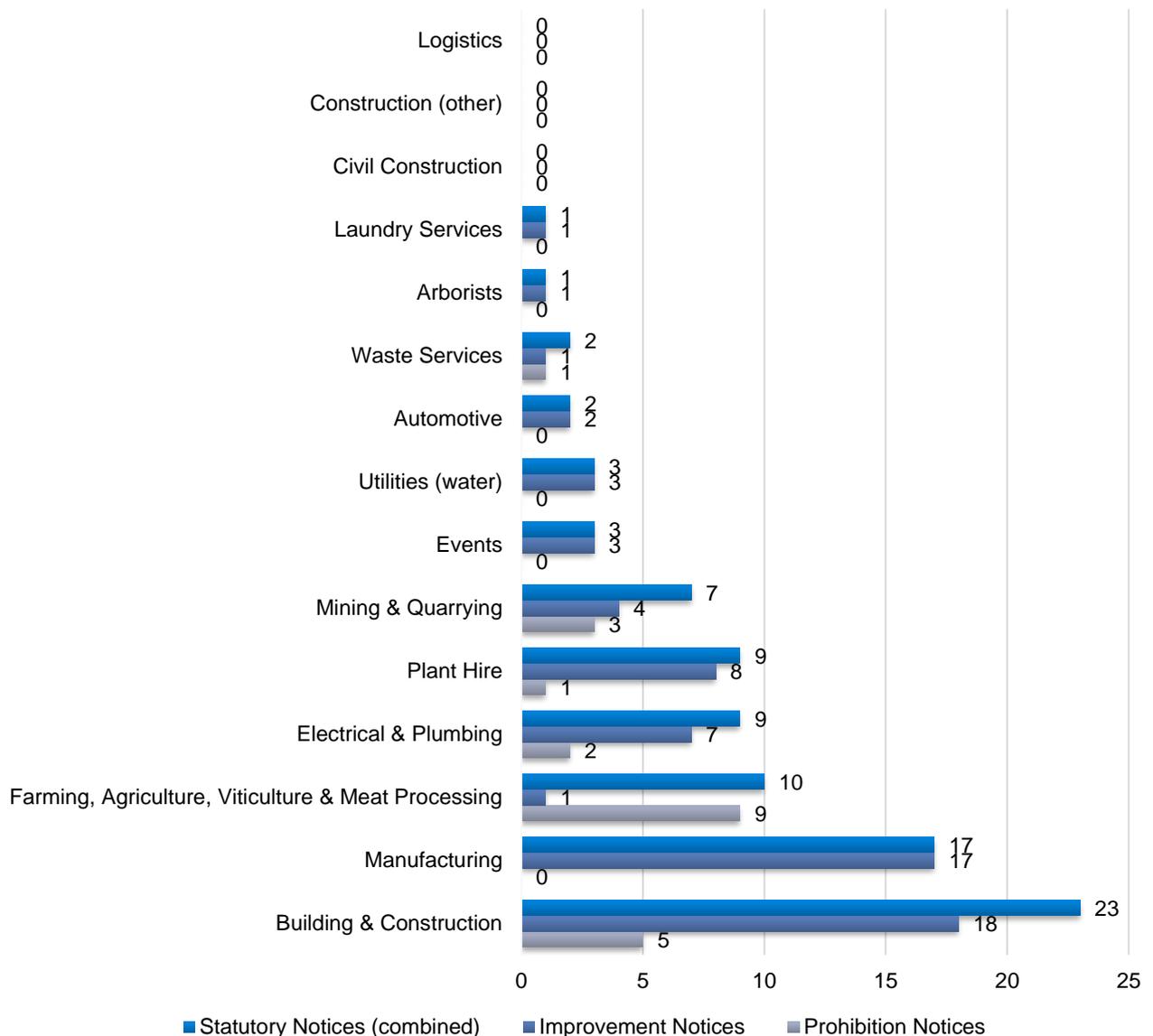
Manufacturing spanned a variety of sectors, such as steel manufacturing and metal fabrication, paint, packaged food, baked goods, retail products and industrial chemicals and products.

40% of plant hire company audits were systems audits, targeting safety obligations when hiring an EWP. The systems audits considered safety systems for handover training, licence confirmation and the use of EWP for specific tasks, as well as EWP maintenance and inspection records in line with the manufacturer's recommendations and the AS 2550.10 – Cranes, hoists and winches - Safe use Mobile elevating work platforms (AS2550).

Statutory Notices

SafeWork SA issued 87 statutory notices in response to non-compliance, including 66 Improvement Notices and 21 Prohibition Notices. Figure 2 below shows the number of notices issued in each industry.

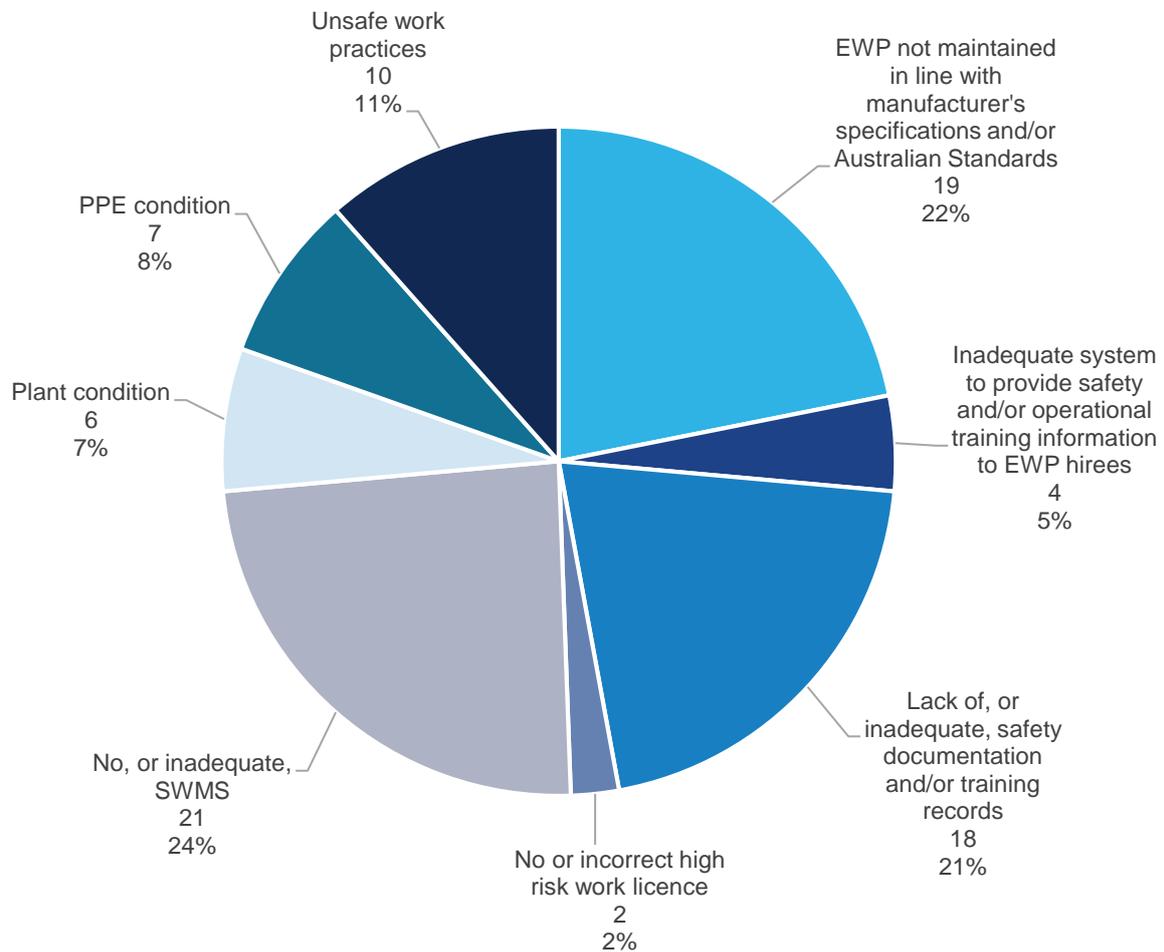
Figure 2: Notices issued per industry



Under the Act, Inspectors are required to detail their reasons for issuing an Improvement or Prohibition Notice¹. While individual notices differed, notice reasons fell into eight broad categories, summarised in Figure 3 below. Further discussion on trends is on page 11.

¹ Work Health and Safety Act 2012 (SA) s 192, 196.

Figure 3: Reasons for notices being issued



Trends

Summary

Overall, notices relating to EWP use focused on three main areas –

- Safe Work Method Statements (SWMS) – including the inclusion of emergency descent and rescue procedures.
- EWP inspections and maintenance in accordance with the AS2550, including the use of log books.
- Maintaining updated safety procedures relating to an EWP, including training workers in the EWPs operation and emergency descent controls.

Most notices issued for unsafe work practices related to exclusion zones not being implemented in work areas, and operators working without harnesses.

There were only two instances where an EWP operator did not hold a high risk work licence. No operators held an incorrect high risk work licence.

Building & Construction

70 audits were undertaken in the building and construction industries, and 23 Statutory Notices were issued. While Improvement Notices were the most commonly issued notice, 22% of all notices were Prohibition Notices relating to serious safety risks.

There were 18 Improvement Notices issued, with 11 Improvement Notices relating to no, or inadequate, SWMS. SWMS are required when undertaking high risk construction work,² which is defined to include construction work at a workplace where there is any movement of powered mobile plant.³ Overall, 21 notices were issued relating to SWMS, with the building and construction industries receiving more than 50% of notices in relation to the SWMS. It was expected that most, if not all, PCBU's audited in this industry would have required a SWMS pursuant to Regulation 299. However, it was identified that the trend relating to Regulation 299 was a broader issue across the building and construction industry. In performing further investigation it was identified that SafeWork SA is performing a range of stakeholder meetings and developing education and guidance materials to assist the industry with complying with Regulation 299. There is an opportunity for SafeWork SA to perform further work in this space, but this is outside the scope of this EWP Audit.

Two notices in this category cited a lack of emergency descent and rescue procedures – a common issue also identified in the Manufacturing industry.

Five notices were issued relating to EWP maintenance, with four notices concerning inadequate log book use.

Five Prohibition Notices were issued. Three related to the EWPs condition (defective tyres, unclear control panel labelling, corrosion, etc.), one was prohibited for not having maintenance records, and one notice was issued for the use of a ladder on the EWPs work platform to gain extra height, exposing the worker to a risk of falling.

Manufacturing

The Manufacturing industry had the second largest number of notices with 17 Improvement Notices. Eight of these notices related to a lack of, or inadequate, safety documentation and/or training records, with five notices citing a lack of training and/or instruction in the

² *Work Health and Safety Regulations 2012 (SA) reg 299.*

³ *Work Health and Safety Regulations 2012 (SA) reg 291.*

operation of emergency descent controls and rescue procedures. In some instances, SafeWork SA Inspectors asked operators to demonstrate an emergency descent of the work platform and they were unable to locate the controls.

Four notices were issued relating to missing or inadequate SWMS. Three PCBU's had inadequate SWMS's in place, and one PCBU had not developed a SWMS.

Farming, Agriculture, Viticulture & Meat Processing

90% of notices issued in the Farming, Agriculture, Viticulture & Meat Processing industry were Prohibition Notices. However, the data gathered does not suggest an industry-wide issue. 13 EWP's were audited in this industry, with nine Prohibition Notices issued to one PCBU who was operating four EWP's. Only one Improvement Notice was issued for the remaining nine EWP's audited in this industry.

The Prohibition Notices issued related to poor PPE condition and maintenance, and non-compliance with maintenance requirements stated in the AS2550. This site had multiple harnesses that had not been inspected or maintained, and EWP's that had no evidence of 3 month or 12 month inspections.

Electrical & Plumbing

Seven Improvement Notices and two Prohibition Notices were issued in this industry.

No, or inadequate SWMS's and unsafe work practices were the most prominent areas of non-compliance. In three instances, notices were issued for a lack of emergency descent and rescue procedures. Prohibition Notices were issued relating to a worker using an EWP without a harness, and a PCBU not having an available SWMS.

One notice was issued relating to a lone worker operating and an EWP without a support person.

Plant Hire

One Prohibition Notice and eight Improvement Notices were issued in this industry. In approximately 10% of audits it was found that EWP hirers were not consistently providing safety information to clients or obtaining and recording verification of operator competency before hiring an EWP.

Some hire companies provide labour for certain jobs. In one instance, a Prohibition Notice was issued relating to a risk of falls where a worker was operating outside of the EWP on steelwork.

Mining & Quarrying

30 audits were undertaken, with four Improvement and three Prohibition Notices issued. Three Improvement Notices related to missing EWP operational procedures and training records. There were no further significant trends in this industry.

Survey Responses

SafeWork SA surveyed PCBUs, plant operators, Health & Safety Representatives, plant hirers and industry stakeholders in response to the recommendations put forward by the State Coroner.

177 individuals participated in the compliance program, with approximately 80% providing responses to the survey. In some cases, no responses were provided to some or all questions. For those that did respond, there are varied differences of opinion. The responses are detailed below in Table 1 as a percentage of all of persons surveyed.

Table 1: responses to survey questions

Survey Question	Responses
1. Are spotters utilised on this site? Does the PCBU believe that each EWP in operation requires a spotter? If no, what other recommendations would the PCBU suggest?	<p>73% used spotters and/or believe each EWP in operation requires a spotter.</p> <p>25% believed the use of spotters should be determined via risk assessment.</p> <p>11% did not believe spotters are required and/or did not believe each EWP in operation requires a spotter.</p> <p>6% were deemed not applicable (in most cases this related to EWP hirers).</p>
2. Does the PCBU have a system in place for workers working alone or remote when in an EWP?	<p>40% had a system in place for lone or remote workers.</p> <p>31% responded as 'not applicable'. This response was common amongst PCBUs where spotters were used on site.</p> <p>8% did not have a system in place for lone or remote workers.</p>
3. Are appropriate controls relating to lone workers in EWPs implemented?	<p>24% considered they had appropriate controls for lone or remote workers.</p> <p>47% responded as 'not applicable'.</p> <p>3% of respondents did not have appropriate controls for lone or remote workers.</p>

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4. Do the EWP's on site have control boxes that are fixed or moveable? **42%** had moveable control boxes.
30% had fixed control boxes.
9% had both fixed and moveable control boxes on site.
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5. Does the PCBU believe fitted control boxes would improve safety? **46%** believed that fitted control boxes would not improve safety, often citing movement through tight spaces as an example of a task requiring a moveable control box.
16% believed fitted control boxes would improve safety.
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6. Do all EWP's on site have the same standardised controls? **40%** had standardised controls on all EWP's on site. However, in many cases only one EWP was on site at the time of the audit.
36% did not have standardised control boxes on all EWP's. Respondents often cited there was limited ability available for controls for EWP makes and models when hiring. Many respondents highlighted that they try to get standardised controls, but this is not always possible.
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7. Does the PCBU ensure all EWP's on site have standardised controls? **36%** of respondents stated that they ensure EWP's on site have standardised controls.
35% did not ensure standardised controls.
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8. Does the PCBU believe that standardised controls on EWP's would improve safety? **69%** of respondents believed standardised controls would improve safety.
6% did not believe standardised controls would provide safety benefits.
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9. Do the EWP's on site have engineering controls retrospectively fitted to improve worker safety, and if so what are they? **58%** of respondents were operating or hiring EWP's without retrospectively fitted engineering controls.
16% did have retrospectively fitted controls, with the most common controls including secondary guarding, overhead protection, kill switches and dead-man (double action) switches/pedals.
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10. What are some engineering controls that the PCBU believes would improve worker safety whilst working in EWPs to prevent crush injuries?
- 41%** of audit tools included examples of engineering controls to prevent crush injuries. Common examples included proximity sensors, scalable load systems (including auto shut-off to prevent crush injuries), crush beams/bars, double action triggers and cameras/mirrors.
- 59%** of results recorded no response from persons surveyed.
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Recommendations

It is recommended that:

- Communication of the outcome of the compliance campaign is provided to internal and external stakeholders.
- Unannounced follow-up audits are conducted within six months' to confirm ongoing compliance has been maintained and issues rectified.
- Consideration is given to using the results from the compliance program to develop educational material for publication on the SafeWork SA website.
- The results of this compliance campaign is used to inform Government about proposed answer the Coroner's questions.
- Consideration is given to developing an audit for Regulation 299, based on the information attained in the audit.