Australian Government
Attorney-General's Department
Office of the Federal Safety Commissioner

# Federal Safety Commissioner

## Hazard 2020 Campaign Final Report

# Contents

# Overview

## Introduction

The 12-month Hazard 2020 Safety Campaign (Hazard 2020), launched in October 2020, targeted scaffolding and mobile plant safety risks on building and construction sites of companies accredited under the Australian Government Work Health and Safety Accreditation Scheme (the Scheme). This Hazard 2020 final report offers key data insights collected during the campaign.

Analysis of Scheme reporting data from 2017-2019 demonstrates that mobile plant and scaffolding were the most common incident types reported to the Office of the Federal Safety Commissioner (OFSC) and were the most frequently issued hazard related Corrective Action Reports (CARs) on Scheme audits.

The aim of Hazard 2020 was to better understand the causes of mobile plant and scaffolding non-compliance and incident occurrence, and to drive safety performance in these areas. Hazard 2020 involved targeted audits, focused data analysis and reporting, and the publishing of a range of educative materials to drive improvement in safety.

## Interpreting this Report

This report highlights compliance issues in relation to mobile plant and scaffolding audit criteria identified at audits of companies accredited under the Scheme and seeking Scheme accreditation between 16 October 2020 and 16 October 2021.

The report also outlines safety incidents associated with mobile plant and scaffolding reported by accredited companies between 16 October 2020 and 16 October 2021. This data includes all incident reports received by the OFSC as at 28 February 2022 for the October 2020 to October 2021 period. Accredited companies must report the following safety incidents to the OFSC:

- any fatality on any project;
- all work-related Lost Time Injuries (LTIs) occurring on projects where the company is the head contractor and the value of the project is at least $4 million;
- all work-related Medically Treated Injuries (MTIs) occurring on Scheme-covered projects where the company is the head contractor; and
- all dangerous occurrences on Scheme-covered projects where the company is the head contractor.

In order to effectively audit scaffolding, sub-criteria from existing head criteria H1 Working at Heights and H5 Structural Alterations/Temporary Support Structures were combined to form a new set of scaffolding audit criteria.

## Statement from the Federal Safety Commissioner

The 12-month Hazard 2020 Safety Campaign detected ongoing problems with scaffolding safety on the sites of companies audited. This finding accords with the outcomes of a number of safety campaigns by state and territory Work Health and Safety (WHS) regulators and reinforces the decision some have made to focus proactive compliance campaigns in this area.

The Hazard 2020 Campaign found that the rate of compliance with Scheme scaffolding requirements has not improved since 2016 and in many areas, has declined. The areas of lowest compliance detected during Hazard 2020 saw almost one in two companies audited fail to meet Scheme requirements. These areas of lowest compliance have also not changed since 2016 – they remain the failure of audited companies to ensure:

- scaffold plans are developed by a qualified person where required;
- scaffolding is installed by a competent person and verified as correctly installed before use; and
- changes to scaffolding design are approved and signed off by a qualified person.

These requirements make a fundamental difference to the safety of workers using the scaffold. They are critical to ensure that everyone goes home safely every day.

This report highlights the need for accredited companies to do better in relation to the safety of scaffolding. As I did midway through the Hazard 2020 campaign, I have shared these results with the CEOs of accredited companies and put them on notice to improve performance. Accredited companies need to review their systems for planning scaffolding, for selecting suitable subcontractors, for overseeing the subcontractor's work and for managing the structure once responsibility for it has transferred to them as the head contractor.

My Office will continue to focus on scaffolding at onsite inspections over the next 12-months. To support accredited companies to improve their scaffolding practices, the OFSC will also:

- publish more educational resources around scaffolding management focused on workers, site management and scaffolders;
- increase its outreach on scaffolding, including the trialling of roundtable forums in key jurisdictions to further investigate issues and solutions as well as a new 'case management' approach for companies that return poor audit results on scaffolding; and
- re-running the scaffolding component of the Hazard 2020 campaign in 2023 to determine whether industry has heeded the message that change is needed.

The OFSC and state and territory WHS regulators have also agreed to collaborate more closely on common areas of safety non-compliance.

Hazard 2020 showed encouraging improvements in mobile plant safety while also revealing that when safety incidents occur with mobile plant, they have disproportionately severe consequences. As a result, continuing vigilance is needed when working with and around mobile plant.

Finally, I would like to thank my Federal Safety Officers and Office staff for their sustained efforts in completing this campaign to such a high standard. I applaud your dedication to improving the safety of our industry.

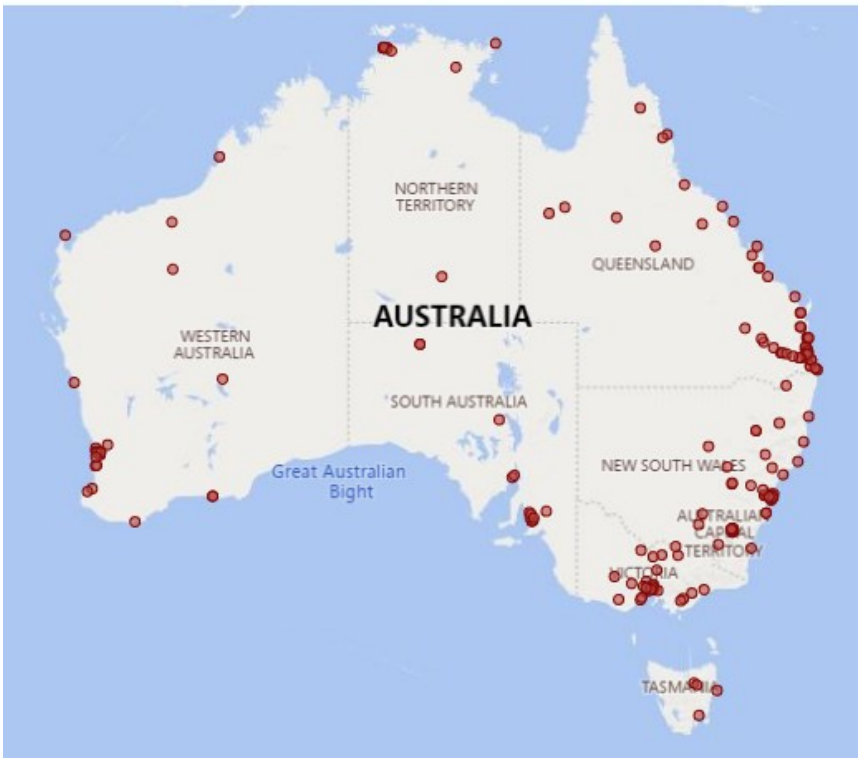
- David Denney, July 2022

## Key findings

### Hazard 2020 Audits

During Hazard 2020 the OFSC conducted 310 targeted Hazard 2020 audits around Australia. During these audits a total of 4,333 Hazard 2020 audit sub-criteria were tested with 995 CARs issued. The maps below show the location of the sites both mobile plant and scaffolding targeted audits.

All Hazard 2020 Mobile Plant Audits




All Hazard 2020 Scaffolding Audits

## Mobile Plant CARs

Overall, Hazard 2020 saw an improvement in compliance with mobile plant audit criteria. The average Corrective Action Report (CAR) issue rates across all of the mobile plant sub-criteria have declined during Hazard 2020 when compared to the averages from the last three years. The sub-criteria with the highest rates of non-compliance were H16.3 (safe work systems for operating mobile plant), H16.9 (inspections), and H16.5 (mobile cranes), all of which saw more than 30% of audited companies fail to meet requirements. However, in all of these areas, compliance improved in comparison to the three-year average. The results showed significant jurisdictional differences and higher non-compliance rates for smaller companies. However, compliance significantly improved the longer a company was accredited.

## Scaffolding CARs

In contrast, Hazard 2020 showed scaffolding compliance remain problematic. The rate of company non-compliance with Scheme scaffolding requirements overall has been stuck at around 30% for the last five years. Analysis at the sub-criteria level shows alarmingly high, and increasing, rates of non-compliance throughout the campaign with certain requirements. Sub-criteria H5.4 (scaffolding plan/design), H5.6 (installation by a competent person), and H1.4 (fall arrest equipment) all saw non-compliance rates above 40%, the highest rates detected during the campaign and all of which were higher than the 2016-2019 averages. The results showed significant regional differences, although the number of audits undertaken in some jurisdictions was very small and therefore less statistically reliable. There was also a weaker connection between scaffolding compliance and the length of a company's accreditation than was seen in relation to mobile plant.

## Incidents

During Hazard 2020, the OFSC closely monitored incident reports from accredited companies to analyse the types of incidents that occurred using scaffolding and mobile plant. The OFSC received 121 reports of incidents involving mobile plant and 39 incidents involving scaffolding.

Two-thirds of the mobile plant incidents and three-quarters of scaffolding incidents were Lost Time Injuries (LTIs) and 10% percent of mobile plant incidents and 21% of scaffolding incidents were Medically Treated Injuries (MTIs). Of the 121 mobile plant incidents reported, 37% were assessed by the OFSC as being Severe or Life at Risk. The most frequent mobile plant injuries involved mobile plant striking workers directly or mobile plant striking other obstructions.

The most frequent scaffolding injuries were caused by workers being struck by falling objects from scaffolding or protruding objects striking a worker. Of the 39 scaffolding incidents reported, 18% were classified as Severe. No Life at Risk incidents were reported.

## The Reach of Hazard 2020

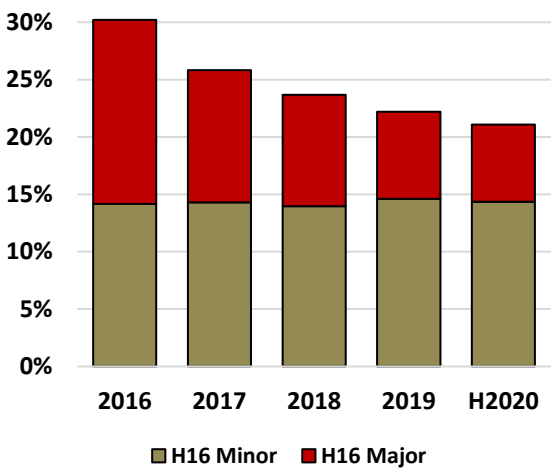
In 2021, the OFSC distributed its online anonymous census to accredited companies seeking valuable feedback on the effectiveness of the Scheme and the OFSC, including the Hazard 2020 campaign. The reach of Hazard 2020 was highly successful with 88% of companies reporting familiarity with the campaign and 81% of respondents accessing the regular campaign updates published on the OFSC website and LinkedIn page. The census also found that 42% of respondents said they had changed their WHS practices to improve safety and decrease risk in these hazard areas.

Notably, the OFSC Hazard 2020 webinar series, conducted by technical experts, industry professionals, regulators, associations, and accredited companies, was highly successful with over 1,500 attendees across five sessions.

# Mobile Plant Audit Results

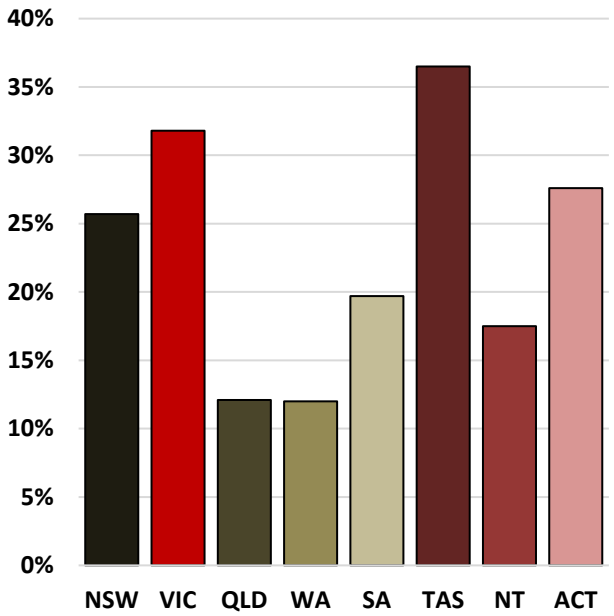
- The OFSC has reviewed **3,396** mobile plant sub-criteria, issuing **716** CARs during Hazard 2020.
- The mobile plant non-compliance rate combined across all sub-criteria during this period is **21.1%**.
- Compliance with mobile plant criteria has improved significantly over the past five years.
- The issue rates for minor CARs have remained stable at approximately **15%**, but the major CAR issue rate has halved over the five-year period.

**Mobile Plant Issue Rates by Year**




| Mobile Plant – Audit Data by State | | | | | | |
|---|---|---|---|---|---|---|
| State | Audits | % of Total Audits | CARs Issued | % of Total CARS | Sub-criteria Reviewed | CAR Issue Rate % |
| **NSW** | 64 | 23% | 197 | 28% | 768 | **25.7%** |
| **VIC** | 49 | 17% | 187 | 26% | 588 | **31.8%** |
| **QLD** | 66 | 23% | 96 | 13% | 792 | 12.1% |
| **WA** | 39 | 14% | 56 | 8% | 468 | 12.0% |
| **SA** | 22 | 8% | 52 | 7% | 264 | 19.7% |
| **TAS** | 8 | 3% | 35 | 5% | 96 | **36.5%** |
| **NT** | 19 | 7% | 40 | 6% | 228 | 17.5% |
| **ACT** | 16 | 6% | 53 | 7% | 192 | **27.6%** |
| **Total** | **283** | | **716** | | **3396** | **21.1%** |

**Mobile Plant State Issue Rates**



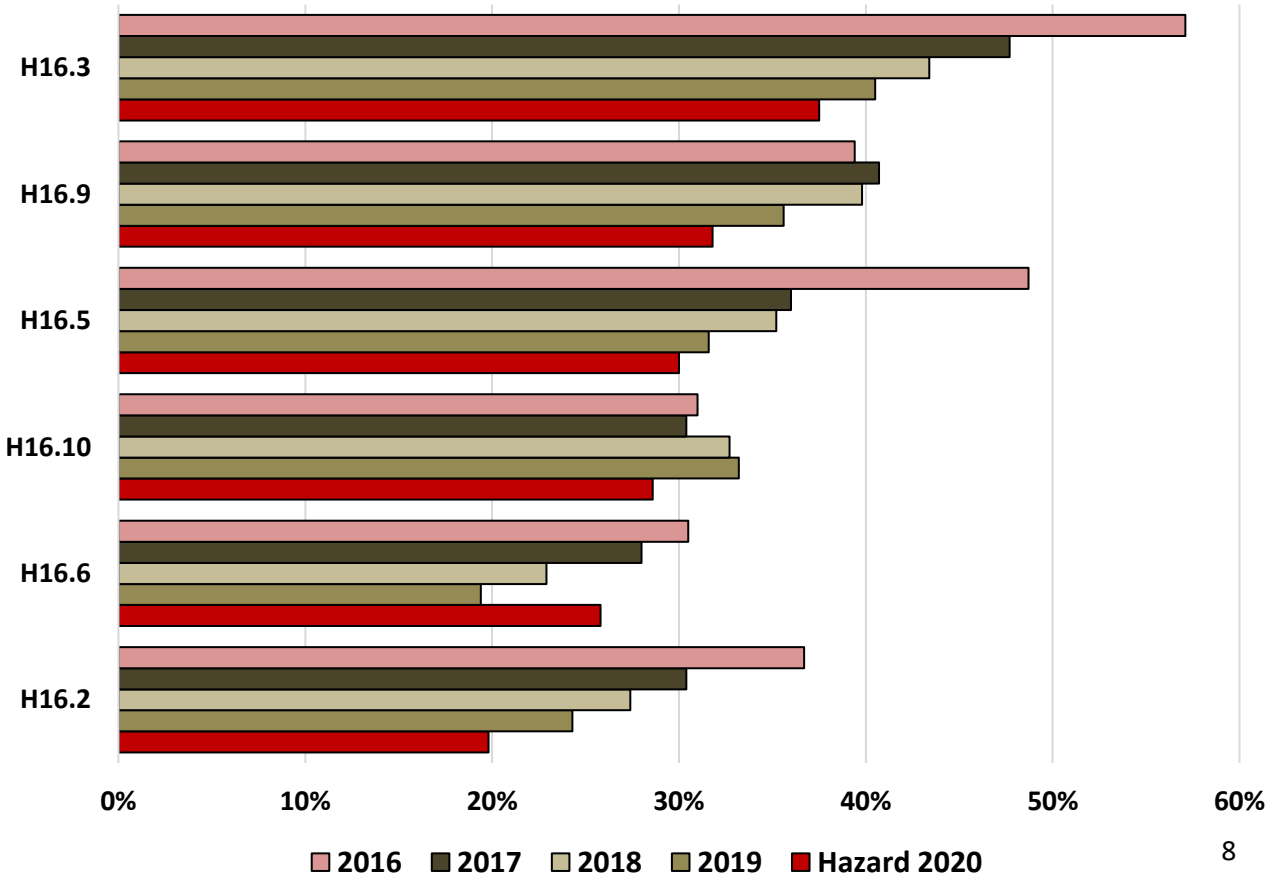

- Companies operating in Tasmania have the highest non-compliance rate at **36.5%**, but had the lowest number of total audits with **eight**.
- Companies operating in Victoria also recorded a non-compliance rate over **30%**.
- **17%** of all audits undertaken during the campaign were on worksites in Victoria, resulting in **26%** of all CARs issued.
- Companies operating in New South Wales reported the largest percentage of mobile plant CARs issued during the campaign at **28%**, while accounted for **23%** of all audits undertaken.
- Companies operating in Queensland and Western Australia had significantly lower issue rates at **12%**.
- Companies operating in Queensland accounted for **13%** of all CARs after experiencing **23%** of all mobile plant audits.

## Mobile Plant Sub-criteria Overview

The table below provides an overview of the mobile plant sub-criteria non-compliance rates over time. It gives a breakdown of the number of CARs issued, the number of times the sub-criterion was audited, and the non-compliance rate as a percentage of the times it was audited. The table shows the sub-criteria with the highest Hazard 2020 issue rates in descending order.

| Mobile Plant Sub-criteria CAR Issue Rates | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sub-criteria* | 2016 | 2017 | 2018 | 2019 | Hazard 2020 | | |
| | | | | | CARs Issued | Sub-criteria Reviewed | Non-compliance Rate % |
| **H16.3** | 57.1% | 47.7% | 43.4% | 40.5% | 106 | 283 | **37.5%** |
| **H16.9** | 39.4% | 40.7% | 39.8% | 35.6% | 90 | 283 | **31.8%** |
| **H16.5** | 48.7% | 36.0% | 35.2% | 31.6% | 85 | 283 | **30.0%** |
| **H16.10** | 31.0% | 30.4% | 32.7% | 33.2% | 81 | 283 | **28.6%** |
| **H16.6** | 30.5% | 28.0% | 22.9% | 19.4% | 73 | 283 | **25.8%** |
| **H16.2** | 36.7% | 30.4% | 27.4% | 24.3% | 56 | 283 | **19.8%** |
| **H16.8** | 22.1% | 16.4% | 19.5% | 16.6% | 53 | 283 | **18.7%** |
| **H16.4** | 26.1% | 17.3% | 14.5% | 21.5% | 52 | 283 | **18.4%** |
| **H16.7** | 18.1% | 20.1% | 15.0% | 13.8% | 48 | 283 | **17.0%** |
| **H16.11** | 29.6% | 22.9% | 19.0% | 17.0% | 36 | 283 | **12.7%** |
| **H16.1** | 17.7% | 17.8% | 14.2% | 12.1% | 33 | 283 | **11.7%** |
| **H16.12** | 5.3% | 2.3% | 0.4% | 0.8% | 3 | 283 | **1.1%** |
| **Total** | **30.2%** | **25.8%** | **23.7%** | **22.2%** | **716** | **3,396** | **21.1%** |

***Sub-criteria definitions are available on page 44**



# Mobile Plant Audit Sub-criteria - H16.3

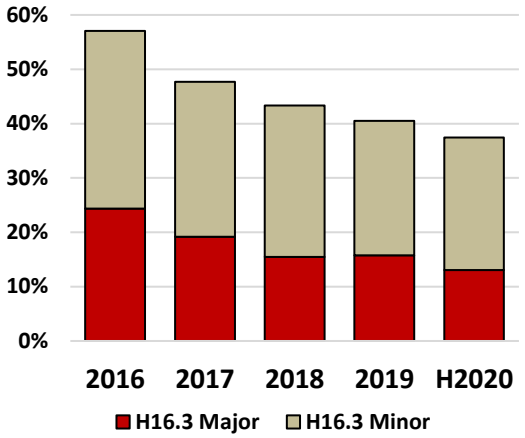
**37.5%**
**Issue rate**

*Safe systems of work are established for the operation of mobile plant taking into account the operator manual; outcomes from the plant risk assessment; site specific requirements; and the need for Roll-Over Protective Structures (ROPS) and Falling Object Protective Structures (FOPS).*

## Most Common Cause of Non-compliance

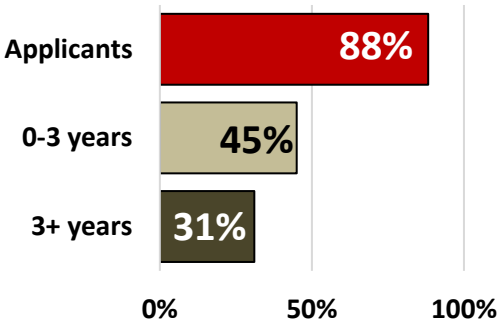
- **38%** of non-compliance related to the lack of:
  - Hazard Identification, Risk Assessment and Control (HIRAC) e.g. Project Risk Assessment, Plant Risk Assessment, and incorporation of original equipment manual (OEM) requirements
  - Safe Work Method Statements (SWMS) e.g. statements were not specific to the item of plant or operational activities underway
  - Safe Systems of Work (SSOW) e.g. a lack of incorporation of OEM, Project, or Plant Risk Assessment requirements into the SSOW being undertaken.
- **34%** of CARs resulted from a failure to incorporate an appropriate Plant Risk Assessment into the system of work used.
- **24%** of CARs were due to non-compliant Rollover Protective Structure (ROPS) and Falling Object Protective Structure (FOPS).

## H16.3 Major/Minor by Year




- In 2016 the non-compliance rate for H16.3 was an unacceptably high **57%**.
- The rate has consistently trended down over the past five years, with the lowest point occurring during Hazard 2020 at **37%**.

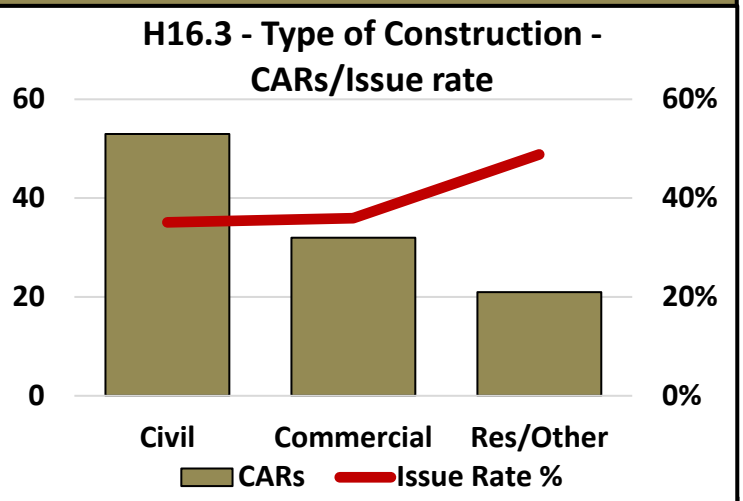
## Issue Rate by Time Accredited

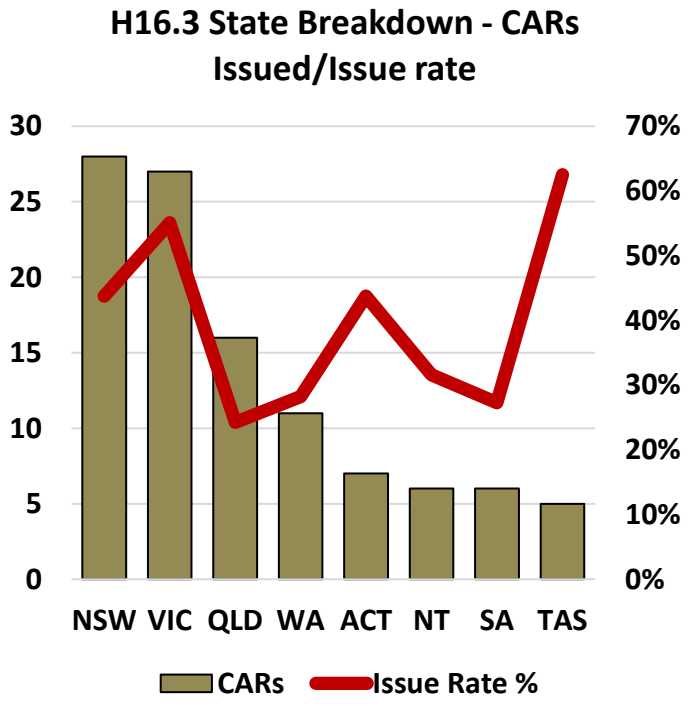



- Applicants being audited to achieve accreditation represent **6%** of the audits undertaken, but accounted for **15%** of the total CARs issued for H16.3.
- There is a significant improvement in company performance after the first three years of accreditation.
- The average CAR rate of **31%** for companies accredited for more than three years is still a significant issue to address.

# Mobile Plant Audit Sub-criteria - H16.3 (cont.)

- H16.3 was reviewed **151** times on civil construction projects, and **89** times on commercial construction projects.
- Civil and commercial projects had a **35%** and **36%** issue rate respectively, demonstrating similar levels of compliance.
- Residential and other types of projects were reviewed less often with a very high issue rate of **49%**.

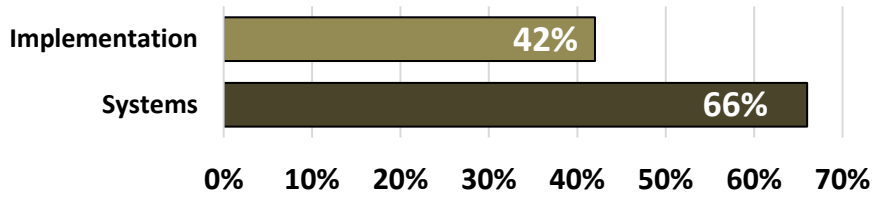



| State | CARs | Reviewed | Issue Rate % |
|---|---|---|---|
| NSW | **28** | **64** | **44%** |
| VIC | **27** | 49 | **55%** |
| QLD | 16 | **66** | 24% |
| WA | 11 | 39 | 28% |
| ACT | 7 | 16 | **44%** |
| NT | 6 | 19 | 32% |
| SA | 6 | 22 | 27% |
| TAS | 5 | 8 | **63%** |

- Companies operating in New South Wales and Victoria were issued the most CARs, with very high issue rates (**44%** and **55%** respectively).
- Companies operating in Queensland were reviewed most frequently, but had the lowest issue rate of **24%**.

- Two-thirds of all CARs issued against H16.3 resulted from non-compliant systems.



# Mobile Plant Audit Sub-criteria - H16.9

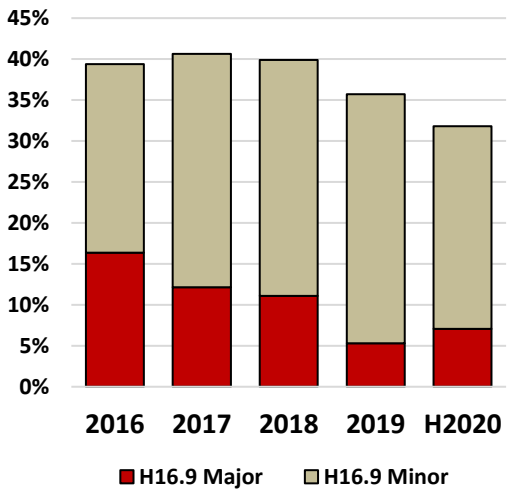
**31.8%**
**Issue rate**

*The system ensures there is an inspection program that is specific to the needs of the type of mobile plant, taking into account regulatory inspections and registration; manufacturers' inspection requirements; pre-start inspections; and commissioning prior to use on-site.*

## Most Common Cause of Non-compliance

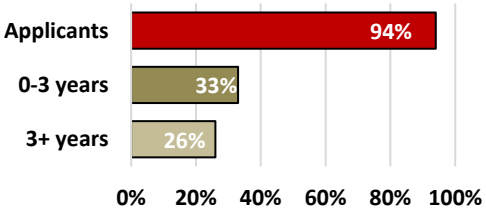
- **93%** of CARs issued were due to failures to ensure inspection requirements are defined and checked/confirmed by the Principal Contractor for each specific item of plant, including:
  - Regulatory inspections where required by legislation
  - Manufacturers' inspection requirements and frequencies
  - Pre-start inspections specific to the needs of the type of plant; and
  - Commissioning of plant as required when constructed or erected onsite.

## H16.9 Major/Minor by Year




- There was a decrease in H16.9 CARs issued during Hazard 2020, hitting its lowest rate at **32%**.
- The issue rate for minor H16.9 CARs has remained reasonably stable since 2016, making up **30%** of the CAR issue rate at its highest in 2019.

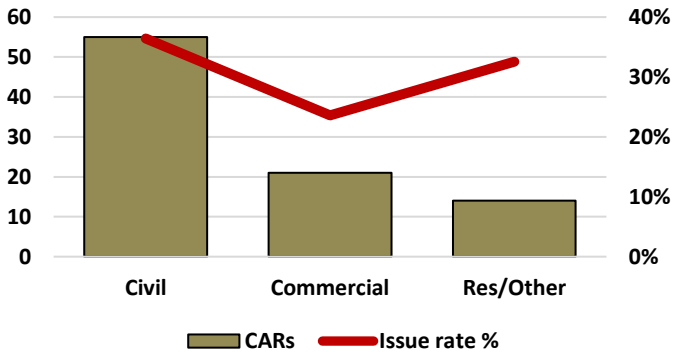
## Issue Rate by Time Accredited



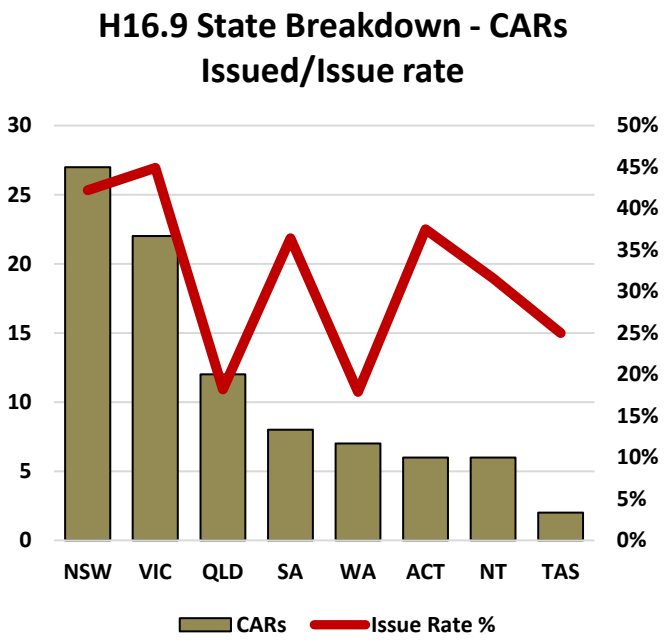

- Applicants being audited to achieve accreditation almost universally fail to satisfy H16.9.
- There is a big improvement in company performance during the first three years of accreditation (**33%**), and a further improvement for companies accredited for more than three years (**26%**).

- H16.9 was reviewed **151** times on civil construction projects, and **89** times on commercial construction projects.
- Civil projects had the most CARs issued and had the highest issue rate of **36%**.
- Commercial projects had the lowest CAR issue rate at **23%**.
- Despite having the lowest number of CARs, residential and other projects had an issue rate of **32%** - just below the civil rate.

## H16.9 - Types of Construction - CARs/Issue rate



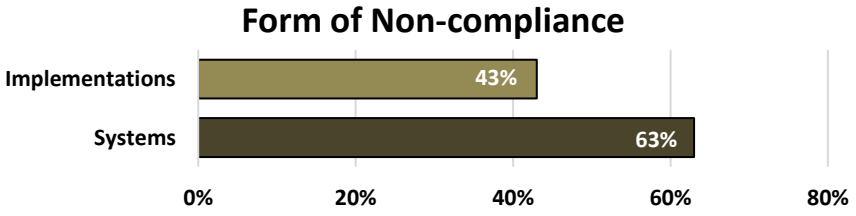
# Mobile Plant Audit Sub-criteria - H16.9 (cont.)




| State | CARs | Reviewed | Issue Rate % |
|---|---|---|---|
| NSW | **27** | **64** | **42%** |
| VIC | **22** | 49 | **45%** |
| QLD | 12 | **66** | 18% |
| WA | 7 | 39 | 18% |
| ACT | 6 | 16 | **38%** |
| NT | 6 | 19 | 32% |
| SA | 8 | 22 | 36% |
| TAS | 2 | 8 | 25% |

- Companies operating in New South Wales and Victoria were issued the most CARs, with very high issue rates (**42%**, **45%**)
- Companies operating in Queensland were reviewed the most times, but have the lowest issue rate of **18%**.

- Over half (**63%**) of the CARs issued against H16.9 were for systems compliance issues.



# Mobile Plant Audit Sub-criteria - H16.5

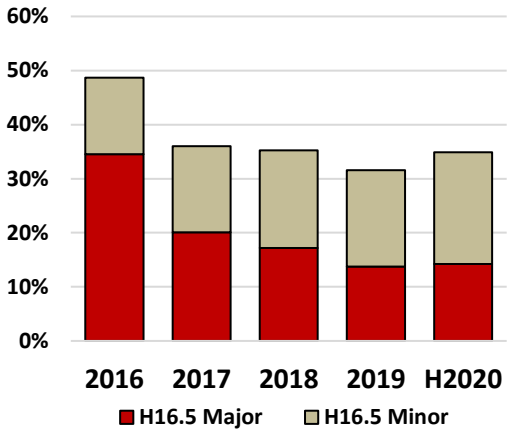
**30%**
**Issue rate**

*Safe systems of work have been developed for the use of mobile cranes taking into account ground conditions; development of lift plans in accordance with relevant legislation, codes of practice, and Australian standards; and lifting of materials and workers.*

## Most Common Cause of Non-compliance

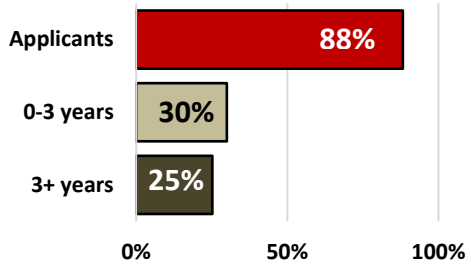
- **50%** of CARs issued related to a failure to properly assess and confirm acceptable ground conditions for the lift.
- **48%** of CARs issued related to lift planning, including:
  - a failure to specify when lift plans are required
  - inadequate process to outline what should be detailed in a lift plan
  - a failure to ensure lift plans are in place as per company requirements.

## H16.5 Major/Minor by Year




- The issue rate for major CARs has dropped significantly from **35%** in 2016 to **14%** in 2019 and during Hazard 2020.
- On the other hand, there has been an increase in minor CARs issued, hitting its highest rate at **21%** during Hazard 2020.

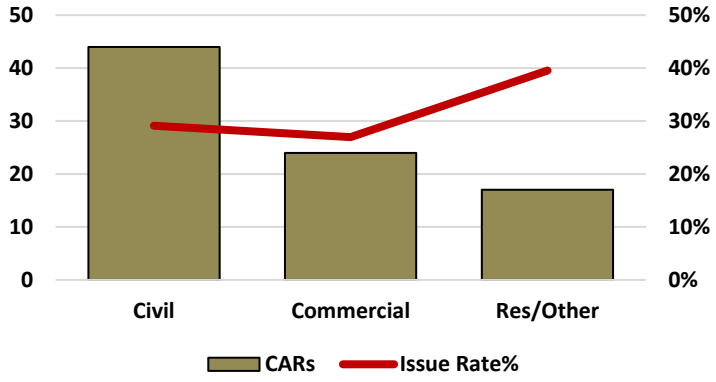
## Issue Rate by Time Accredited



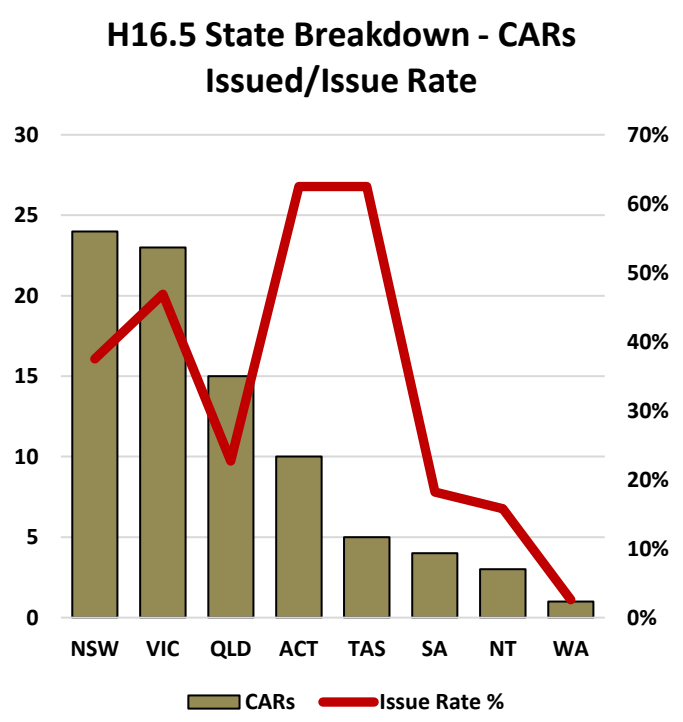

- Applicants being audited to achieve accreditation have a very high CAR issue rate of **88%**.
- There is a significant improvement in company performance after the first three years of accreditation.
- The over three-year average rate of **25%** is marginally better than companies who have been accredited between zero to three years.

- H16.5 was reviewed **151** times on civil construction projects, and **89** times on commercial construction projects.
- Civil and commercial projects had a **29%** and **27%** issue rate respectively, demonstrating similar levels of compliance.
- Residential and other types of projects were reviewed less often with a very high issue rate of **39%**.

## H16.5 - Type of Construction - CARs/Issue Rate



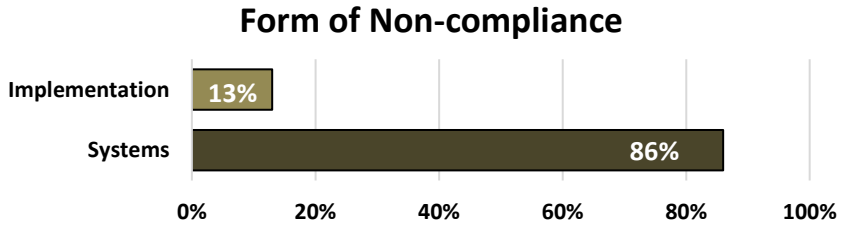
# Mobile Plant Audit Sub-criteria - H16.5 (cont.)




| State | CARs | Reviewed | Issue Rate % |
|---|---|---|---|
| NSW | **24** | **64** | **37%** |
| VIC | **23** | 49 | **47%** |
| QLD | 15 | **66** | 23% |
| WA | 1 | 39 | 3% |
| ACT | 10 | 16 | **62%** |
| NT | 3 | 19 | 16% |
| SA | 4 | 22 | 18% |
| TAS | 5 | 8 | **63%** |

- Companies operating in NSW and Victoria were issued the most CARs, with very high issue rates (**37%**, **47%**). Companies operating in TAS and the ACT had the highest issue rates at **62%**, but were reviewed less.
- Companies operating in WA had the lowest issue rate at **3%** from a high review rate.

- The majority (**86%**) of the CARs issued against H16.5 were for systems non-compliance issues.



# Mobile Plant Audit Sub-criteria - H16.10

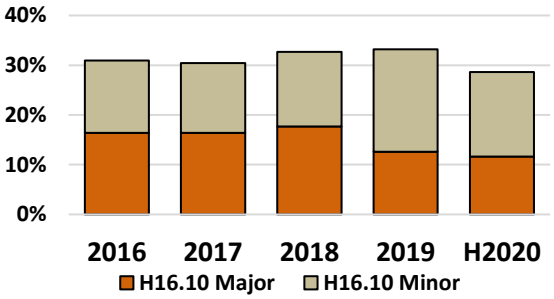
**28.6%**
**Issue rate**

*The system ensures that there is a process for the ongoing maintenance of mobile plant.*

### Most Common Cause of Non-compliance

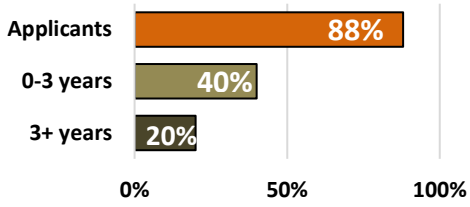
- **91%** of CARs issued were due to the lack of systems in place to assure or confirm the maintenance and/or expiry date of mobile plant.

### H16.10 Major/Minor by Year



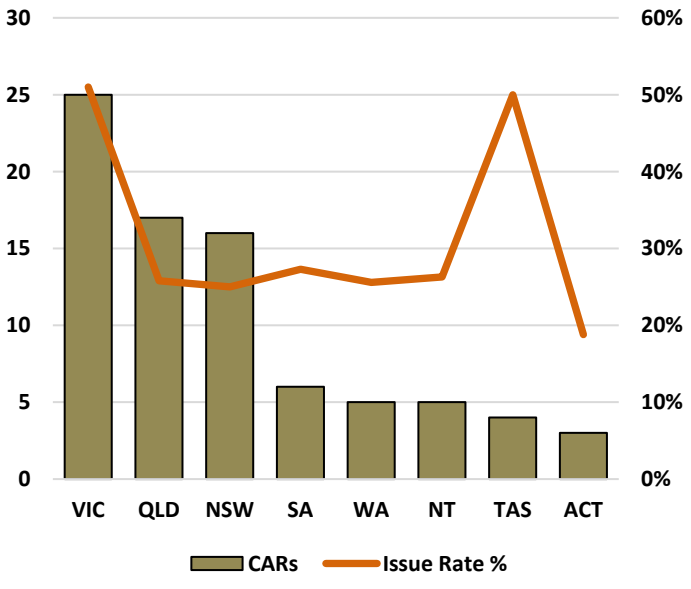

- The CAR issue rate has remained relatively consistent, around **30%**, since 2016.
- There has been a decrease in CARs issued during Hazard 2020, hitting its lowest rate at **28%**.

### Issue Rate by Time Accredited




- Applicants being audited to achieve accreditation represent **6%** of the audits undertaken, but account for **15%** of the total CARs issued for H16.10.
- There is a significant improvement in company performance after the first three years of accreditation.

### H16.10 - State Breakdown - CARs Issued/Issue Rate




| State | CARs | Reviewed | Issue Rate % |
|---|---|---|---|
| NSW | 16 | **64** | 25% |
| VIC | **25** | 49 | **51%** |
| QLD | 17 | **66** | 26% |
| WA | 5 | 39 | 13% |
| ACT | 3 | 16 | 19% |
| NT | 5 | 19 | 26% |
| SA | 6 | 22 | 27% |
| TAS | 4 | 8 | **50%** |

- Companies operating in Victoria had the highest CAR issue rate (**51%**), followed by those in Tasmania (**50%**).
- Companies operating in Western Australia had the lowest CAR issue rate at **13%**.

# Mobile Plant Audit Sub-criteria - H16.6

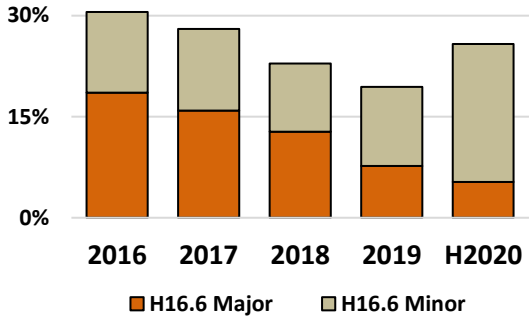
**25.8%**
**Issue rate**

*The system ensures there is an inspection and maintenance program for rigging and lifting equipment.*

## Most Common Cause of Non-compliance

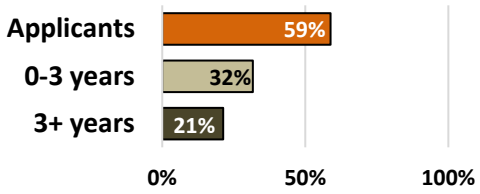
- **84%** of CARs issued related to systems.
- **25%** of CARs issued related to implementation.

## H16.6 Major/Minor by Year



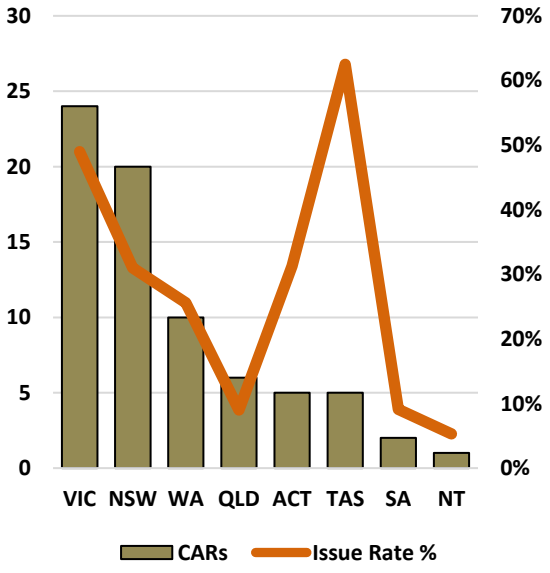

- During Hazard 2020, the non-compliance rate rose back to be above the 2018 rate. However, the major CAR rate has continued to decline over the last five years.
- The issue rate trended down for the years 2017-2019, with the lowest point being in 2019 at **32%**.

## Issue Rate by Time Accredited




- Companies applying for accreditation have a CAR issued at more than half the audits (**59%**) for H16.6.
- There is a significant improvement in company performance after the first three years of accreditation and further improvement for companies accredited for over three years.

## H16.6 State Breakdown – CARs Issued/Issue Rate




| State | CARs | Reviewed | Issue Rate % |
|---|---|---|---|
| NSW | 20 | **64** | 31% |
| VIC | **24** | 49 | **49%** |
| QLD | 6 | **66** | 9% |
| WA | 10 | 39 | 26% |
| ACT | 5 | 16 | 31% |
| NT | 1 | 19 | 5% |
| SA | 2 | 22 | 9% |
| TAS | 5 | 8 | 63% |

- Companies operating in Victoria and New South Wales were issued the most CARs, with very high issue rates (**49%**,**31**%).
- Companies operating in Tasmania had the highest CAR issue rate (**62%**).
- Companies operating in Queensland were reviewed the most, but have the lowest issue rate of **9%**.

## Mobile Plant Audit Sub-criteria - H16.2

**19.8%**
**Issue rate**

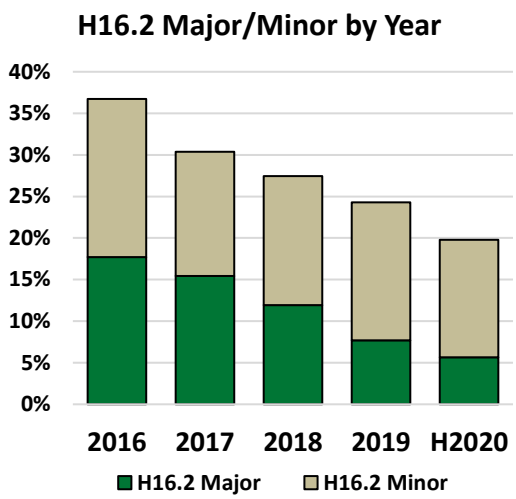
*The system ensures that a Plant Risk Assessment is carried out on all items of plant prior to use on-site.*

### Most Common Cause of Non-compliance

- **39%** of CARs issued were related to systems.
- **73%** of CARs issued related to implementation.
- **92%** of CARs were for the failure to have an appropriate Plant Risk Assessment, having a poor-quality risk assessment, or for having no process.

### Trend

There has been a steady decline in the CAR issue rate since 2016. The issue rate reached its lowest point during Hazard 2020 at **20%**.




## Mobile Plant Audit Sub-criteria - H16.8

**18.7%**
**Issue rate**

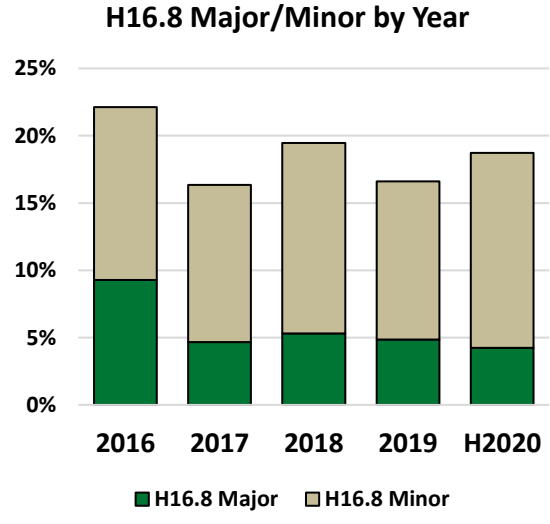
*The system ensures that all workers operating mobile plant are licensed trained or competent.*

### Most Common Cause of Non-compliance

- **74%** of CARs issued related to systems.
- **34%** of CARs issued related to implementation.
- **96%** of CARs issued related to licences and competency issues, including issues with the nomination of minimum requirements and assurance of licence/competency.

### Trend

The non-compliance issue rate for H16.8 has been relatively stable over the past five years, reaching its lowest points in 2017 and 2019.



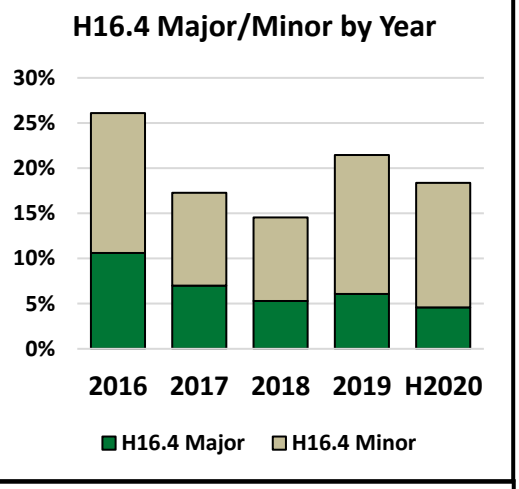
## Mobile Plant Audit Sub-criteria - H16.4

**18.4%**
**Issue rate**

*Safe systems of work have been developed for all above ground and underground services taking into account identification and location of services; management of works adjacent to services; and; any necessary liaison with the asset owner.*

**Most Common Cause of Non-compliance**

- **70%** of CARs related to poor management of services including:
  - Failure to properly identify above ground and underground services in the vicinity of works
  - Failure to clearly identify and incorporate the safe approach distances/no-go zones from the asset owner into Safe Systems of Work when working in the vicinity or adjacent to above ground and underground services.
- **27%** of CARs related to permit issuance.




**Trend**

Hazard 2020 saw a big increase in the CAR issue rate for this sub-criterion in comparison to the previous four years. However, compared to other sub-criterion H16.4 has a low CAR issue rate.

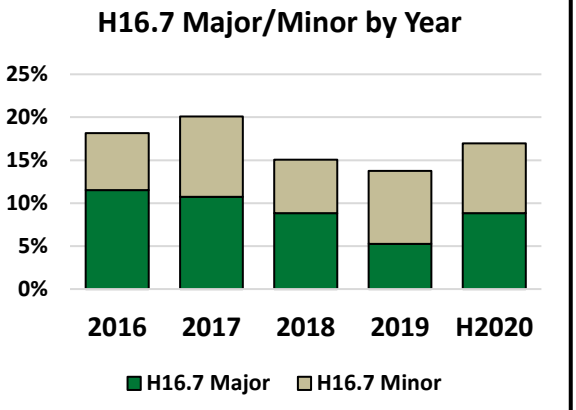
## Mobile plant audit sub-Criteria - H16.7

**17%**
**Issue rate**

*The system ensures that movement of plant and vehicles on-site is controlled.*

**Most common cause of non-compliance**

- **52%** of CARs issued related to systems and **69%** to implementation.
- **23%** of CARs issued related to workers that were in the vicinity of operating plant.




**Trend**

Hazard 2020 saw a slight increase in the CAR issue rate for this sub-criterion in comparison to the previous two years.

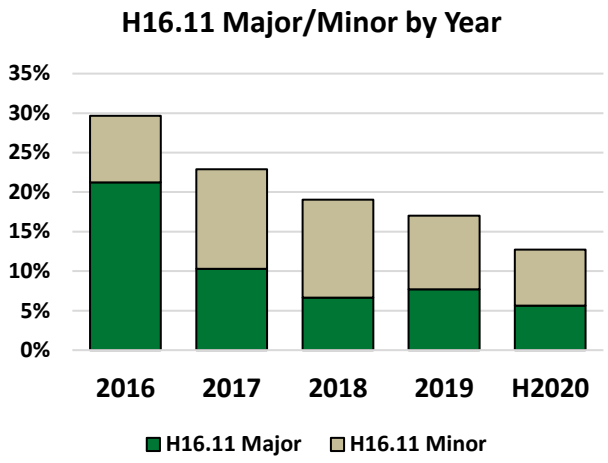
## Mobile Plant Audit Sub-criteria - H16.11

**12.7%**
**Issue rate**

*The system ensures that emergency procedures are established specific to the scope of works.*

**Most Common Cause of Non-compliance**

- **33%** of CARs issued related to systems.
- **69%** of CARs issued related to implementation.




**Trend**

Hazard 2020 saw a decrease in the CAR issue rate for this sub-criterion in comparison to the previous four years, in line with the downward trend for CAR issue rates for H16.11.

## Mobile Plant Audit Sub-criteria - H16.1

**11.7%**
**Issue rate**

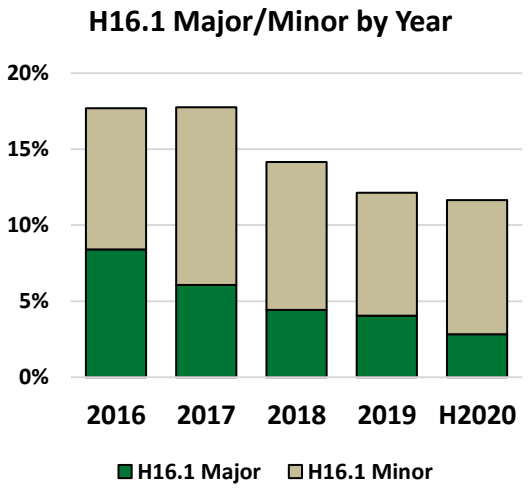
*The risks associated with the use of mobile plant are identified, assessed and controlled in accordance with the Hierarchy of Control.*

**Most Common Cause of Non-compliance**

- **82%** of CARs issued related to non-compliant:
  - Hazard Identification, Risk Assessment and Control (HIRAC)
  - Safe Work Method Statements (SWMS)
  - Safe Systems of Work (SSOW).
- **21%** of CARs were due to system issues and **88%** of CARs due to implementation issues.

**Trend**

Overall, compliance with this sub-criterion has improved with a gradual downward trend of CARs issued from 2016-2020.



## Mobile Plant Audit Sub-criteria - H16.12

**1.1%**
**Issue rate**

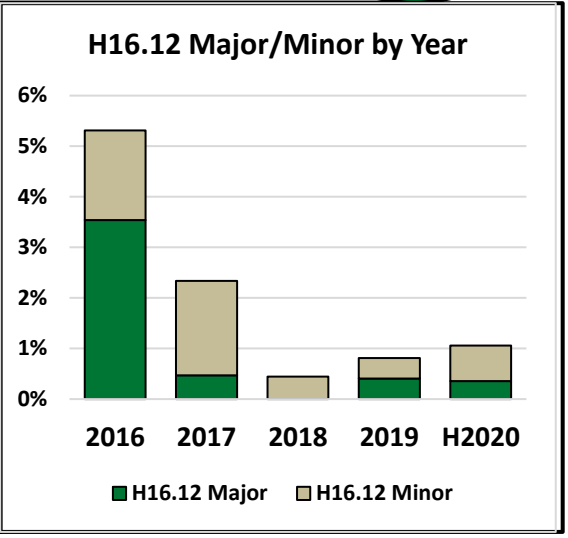
*Other hazard related activity.*

**Trend**

This sub-criterion has the lowest CAR issue rate out of all of the mobile plant sub-criteria.

Examples of other hazard related activity CARs issued during Hazard 2020 included:

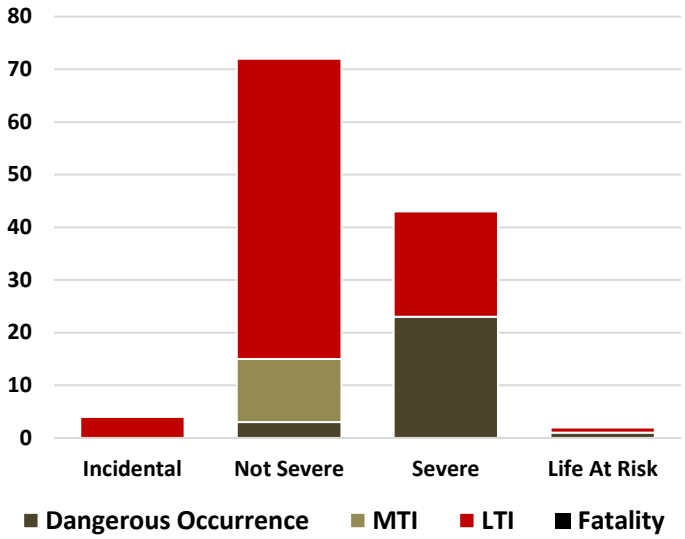
- Additional machinery being used contrary to engineering advice resulting in an excessive load
- Training not provided for the specific type of plant being used, and
- A risk management system was not used around works with a silica exposure risk.



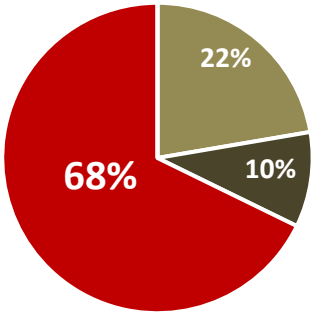
# Hazard 2020 - Mobile Plant Incident Analysis

- **121** incidents reported to the OFSC by accredited companies were related to mobile plant.
- **45** incidents reported were classified as severe or life at risk, making up **37%** of all mobile plant incidents reported.
- **68%** of these incidents were classified as LTIs.
- There were no fatalities reported relating to mobile plant hazards.

**Mobile Plant Incident Severity by Type**




**Incident Type Percentage Comparison**




**Number of Mobile Plant Incidents by Type and Severity**

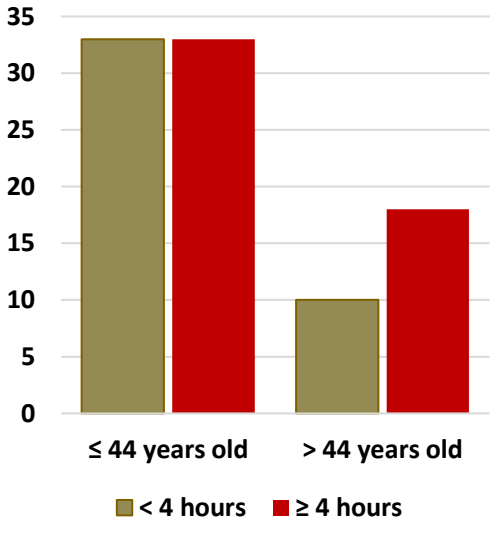
| | DO | LTI | MTI | Fatality | Total |
|---|---|---|---|---|---|
| **Incidental** | 0 | 4 | 0 | 0 | **4** |
| **Not Severe** | 3 | **57** | **12** | 0 | **72** |
| **Severe** | **23** | 20 | 0 | 0 | **43** |
| **Life At Risk** | 1 | 1 | 0 | 0 | **2** |
| **Total** | **27** | **82** | **12** | **0** | **121** |

**Age of Worker vs Hours On-site when Injury Occurred**

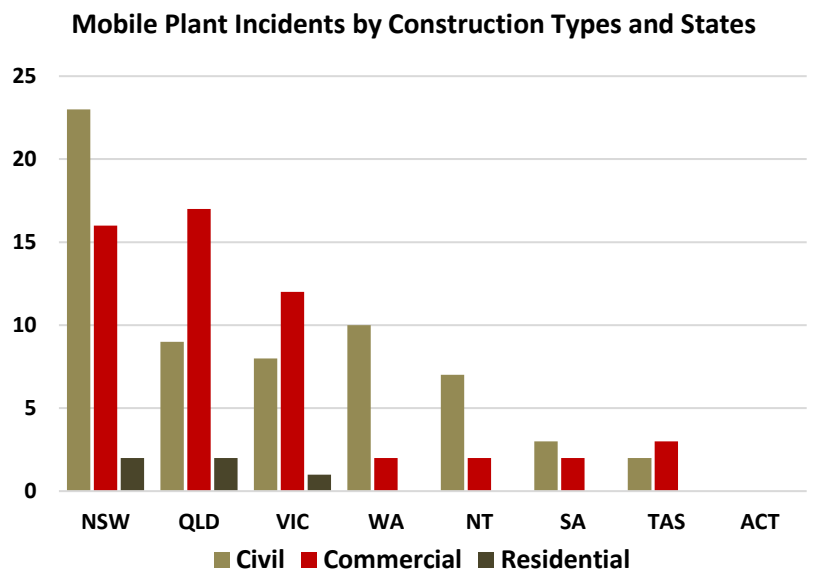
| | <4 Hours on-site | ≥4 Hours on-site | Total injuries | % |
|---|---|---|---|---|
| **≤44 years old** | 33 | 33 | 66 | 70.2 |
| **>44 years old** | 10 | 18 | 28 | 29.8 |

- **70%** of mobile plant related injuries are occurring to workers under the age of 45. However, this is distributed evenly throughout the hours on-site.
- Of the 28 mobile plant related injuries occurring to workers over the age of 44, **64%** occur when the worker has been on-site more than four hours.
- While this is a relatively small dataset, the occurrence of incidents nearly doubling for workers over 44 years of age when on-site for more than four hours is significant.

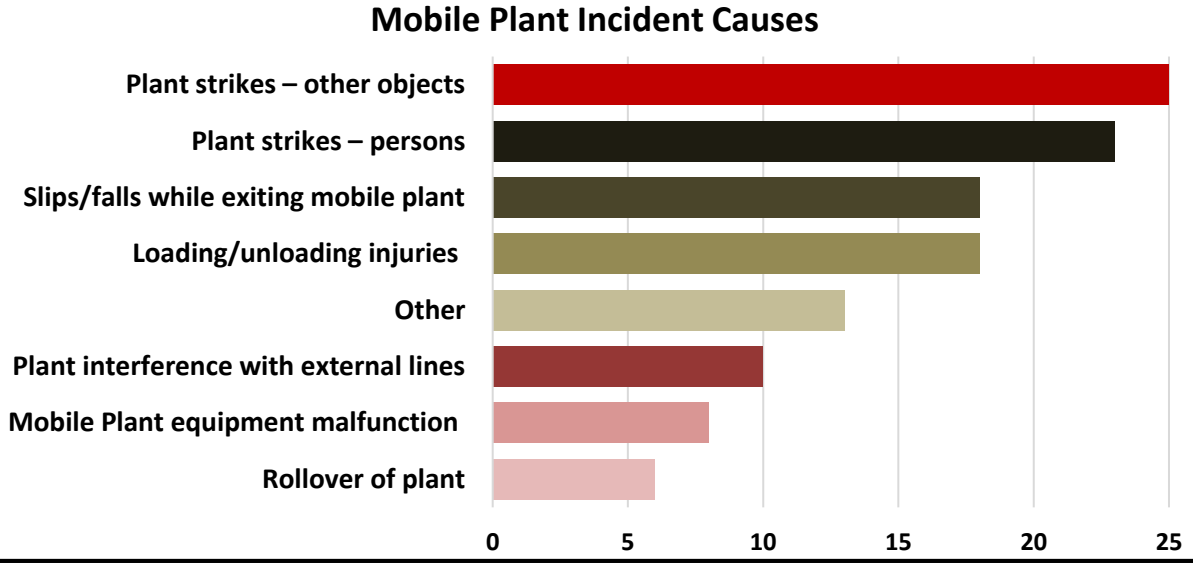
**Mobile Plant Injuries - Worker Age vs Hours On-site**



# Hazard 2020 - Mobile Plant Incident Analysis (cont.)



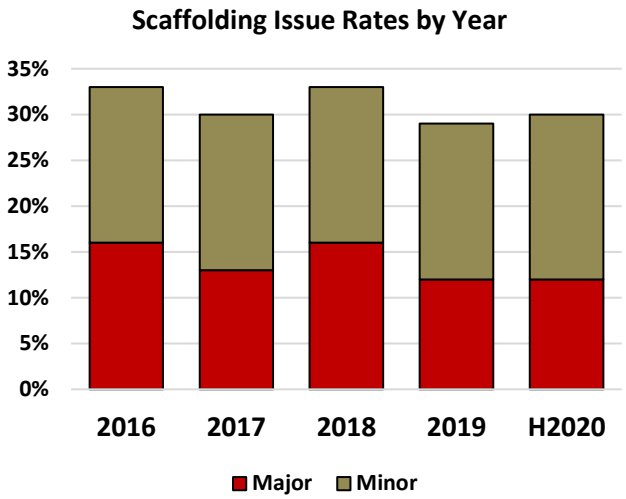

- One-third of all mobile plant incidents reported during Hazard 2020 occurred on company sites in NSW, with almost **20%** more incidents occurring on civil projects.
- **23%** occurred on company sites in QLD, where double the number of incidents occurred on commercial projects compared with civil.
- Company sites in Victoria also featured a higher volume of commercial incidents, with **21** overall incidents.



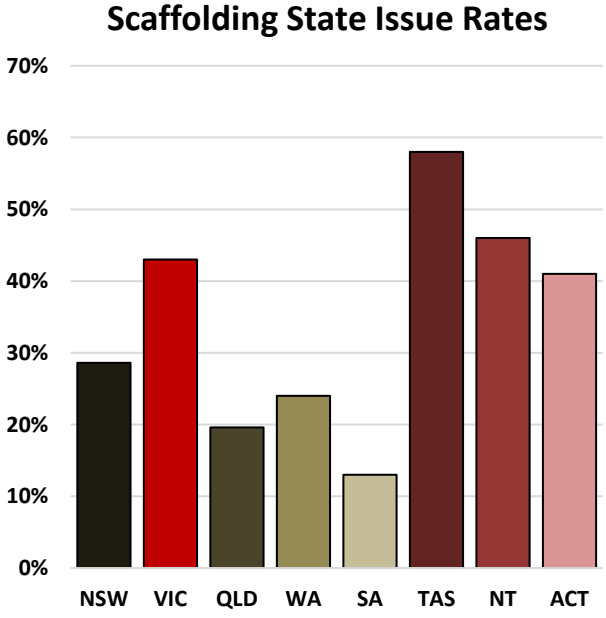

- The highest number of mobile plant incidents occurred due to the plant striking an object or a person, which accounted for **40%**.
- Slips, trips and falls and manual handling during loading and unloading accounted for **15%** of mobile plant incidents each.

# Scaffolding Audit Results

- The OFSC has reviewed **937** scaffolding sub-criteria, issuing **279** CARs during Hazard 2020.
- The scaffolding non-compliance rate combined across all sub-criteria during this period is **29.8%**.
- Non-compliance with scaffolding criteria has been stuck at around 30% since 2016.
- The proportion of major and minor CARs issued throughout the 2016-2020 period has also remained relatively stable.




| Scaffolding – Audit Data by State | | | | | | |
|---|---|---|---|---|---|---|
| State | Audits | % of Total Audits | CARs Issued | % of Total CARS | Sub-criteria Reviewed | CAR Issue Rate % |
| NSW | 36 | 29% | 89 | 32% | 311 | **28.6%** |
| VIC | 23 | 19% | 77 | 28% | 178 | **43.3%** |
| QLD | 20 | 16% | 27 | 10% | 138 | 19.6% |
| WA | 18 | 15% | 30 | 11% | 124 | 24.2% |
| SA | 10 | 8% | 11 | 4% | 85 | 12.9% |
| TAS | 4 | 3% | 7 | 3% | 12 | **58.3%** |
| NT | 7 | 6% | 16 | 6% | 35 | **45.7%** |
| ACT | 6 | 5% | 22 | 8% | 54 | **40.7%** |
| **Total** | **124** | | **279** | | **937** | **29.8%** |



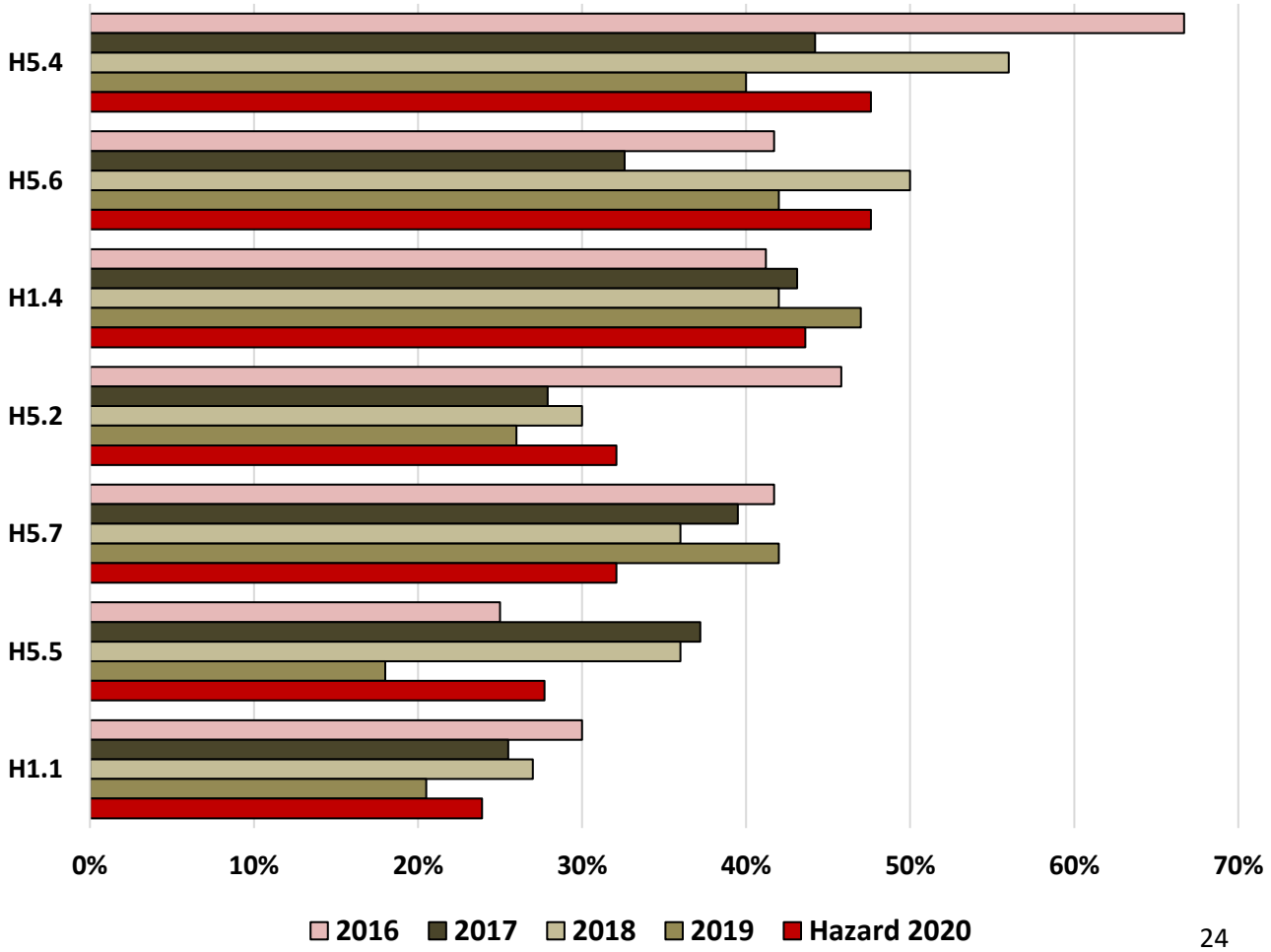

- Companies audited in Tasmania, the Northern Territory and the Australian Capital Territory had very high non-compliance rates, but only **13%** of audits were conducted in those jurisdictions.
- **19%** of all audits undertaken during Hazard 2020 were on worksites in Victoria, resulting in **43%** of all CARs issued.
- Companies operating in South Australia had a significantly lower non-compliance rate at **13%**, but accounted for only **8%** of audits.

## Scaffolding Sub-criteria Overview

The table below provides an overview of the scaffolding sub-criteria non-compliance rates over time. It gives a breakdown of the number of CARs issued, the number of times the sub-criterion was audited, and the non-compliance rate as a percentage of the times it was audited. The table shows the sub-criteria with the highest Hazard 2020 issue rates in descending order.

| Scaffolding Sub-criteria CAR Issue Rates | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sub-criteria* | 2016 | 2017 | 2018 | 2019 | Hazard 2020 | | |
| | | | | | CARs Issued | Sub-criteria Reviewed | CAR Issue Rate % |
| H5.4 | 66.7% | 44.2% | 56.0% | 40.0% | 40 | 84 | 47.6% |
| H5.6 | 41.7% | 32.6% | 50.0% | 42.0% | 40 | 84 | 47.6% |
| H1.4 | 41.2% | 43.1% | 42.0% | 47.0% | 51 | 117 | 43.6% |
| H5.2 | 45.8% | 27.9% | 30.0% | 26.0% | 27 | 84 | 32.1% |
| H5.7 | 41.7% | 39.5% | 36.0% | 42.0% | 27 | 84 | 32.1% |
| H5.5 | 25.0% | 37.2% | 36.0% | 18.0% | 23 | 83 | 27.7% |
| H1.1 | 30.0% | 25.5% | 27.0% | 20.5% | 28 | 117 | 23.9% |
| H1.6 | 16.8% | 11.8% | 17.0% | 15.4% | 20 | 116 | 17.2% |
| H5.1 | 25.0% | 27.9% | 22.0% | 18.0% | 12 | 84 | 14.3% |
| H5.8 | 41.7% | 23.3% | 24.0% | 14.0% | 11 | 84 | 13.1% |
| Total | 31.1% | 30.0% | 32.8% | 28.1% | 279 | 937 | 29.8% |

*Sub-criteria definitions are available on page 44



# Scaffolding Audit Sub-criteria – H5.4

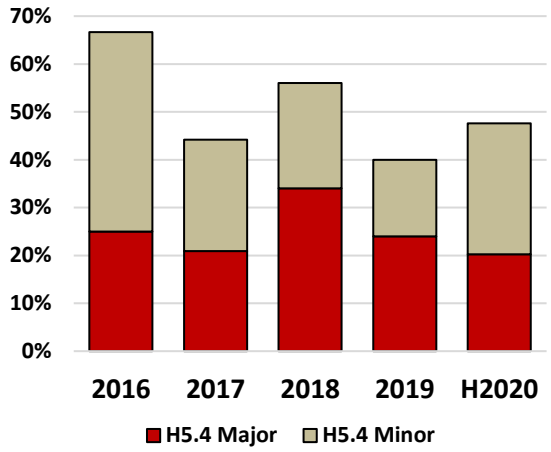
**47.6%**
**Issue rate**

*The system ensures that a scaffold plan has been developed by a qualified person, and changes to the installation design are authorised and signed off by a qualified person or a risk assessment has been conducted to determine the need for a scaffold plan.*

**Most Common Cause of Non-compliance**

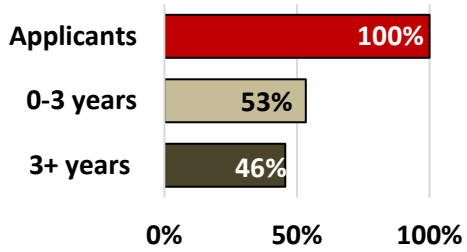
- **37%** of CARs related to scaffold planning, including:
  - Lack of process to outline when a scaffold plan is required to be developed
  - Inadequate design information or detail within the scaffold plan
  - Changes being made without proper markup and authorised/signed up.
- **20%** of CARs issued were due to failures to ensure scaffolding was being designed and built by a qualified person.

**H5.4 Major/Minor by Year**




- H5.4 had the equal highest non-compliance rate detected in the campaign.
- While non-compliance is trending downwards since 2016, the current issue rate of almost 50% remains alarmingly high.

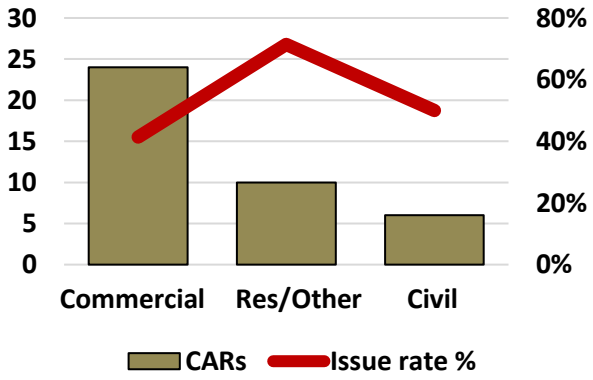
**Issue Rate by Time Accredited**



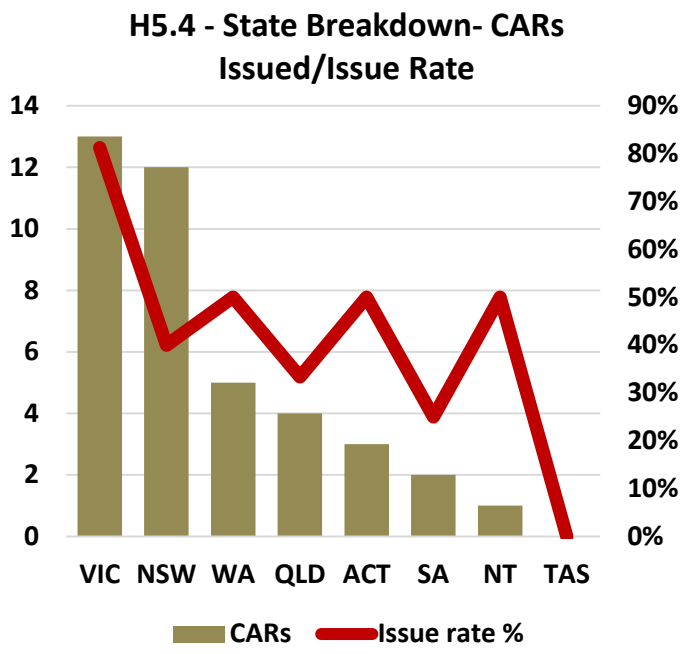

- Only one applicant applying for accreditation was tested on H5.4 and a CAR was issued.
- Companies accredited for fewer than three years had a slightly higher issue rate (**53%**) than companies accredited for greater than three years.
- The **46%** non-compliance rate for companies accredited greater than three years remains very high.

- H5.4 was reviewed **58** times on commercial projects, **14** times on residential/other projects, and **12** times on civil projects.
- The non-compliance rate was lowest on commercial projects at **41%**, despite being reviewed much more frequently than on the other types of construction.
- The non-compliance rate was the highest on residential/other construction at **71%**, representing ten CARs out of the 14 times it was tested.

**H5.4 - Type of Construction - CARs/Issue rate**



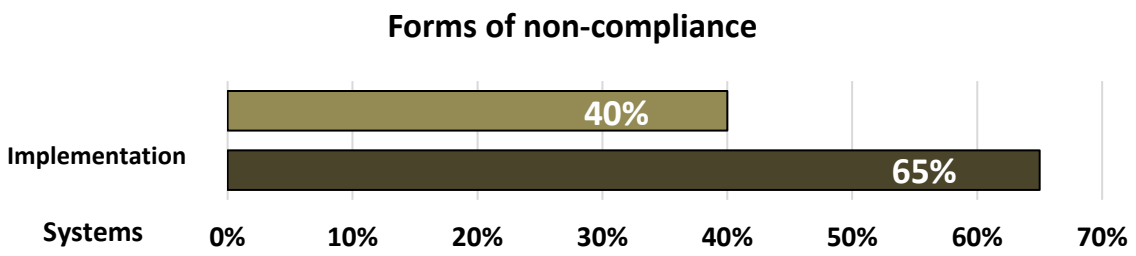
# Scaffolding Audit Sub-criteria – H5.4 (cont.)




| H5.4 | CARs | Reviewed | Issue rate % |
|---|---|---|---|
| VIC | **13** | 16 | **81%** |
| NSW | **12** | 30 | 40% |
| WA | 5 | 10 | **50%** |
| QLD | 4 | 12 | 33% |
| ACT | 3 | 6 | **50%** |
| SA | 2 | 8 | 25% |
| NT | 1 | 2 | **50%** |
| TAS | 0 | 0 | n/a |

- 24 CARs were issued for systems, 14 for implementation, and 2 for both implementation and systems issues.

- Companies operating in Victoria had a very high issue rate of **81%**. They were also issued the greatest number of CARs.
- Companies operating in New South Wales were issued the second highest number of CARs, although their issue rate was below average at **40%**, after being tested almost twice as often as companies operating in Victoria.



# Scaffolding Audit Sub-criteria – H5.6

*The system ensures that structural support systems and temporary structures are installed by a competent person and verified as correctly installed prior to use in accordance with relevant legislation, codes of practice and Australian standards, manufacturers' requirements or where applicable, the drawing/plan.*

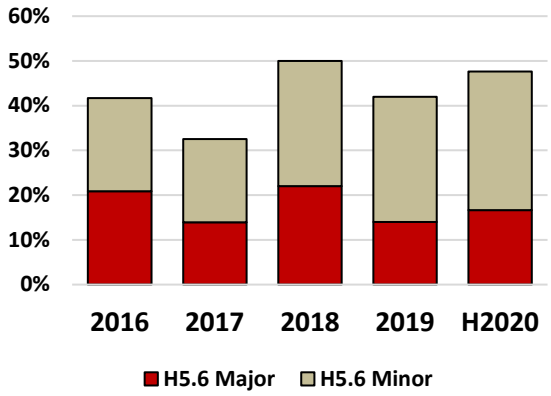
**47.6%**
**Issue rate**

## Most Common Cause of Non-compliance

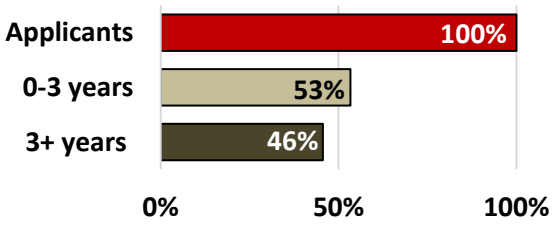
- **32%** of CARs were due to issues with handover/certificate/inspection.
- **31%** of issues were related to scaffolding being built and designed by a qualified person.
- **20%** of issues were with the scaffold or structure plan.

- The non-compliance rate for H5.6 has been trending upwards since 2016 and has now reached the second highest point at **48%**.

## H5.6 Major/Minor by Year



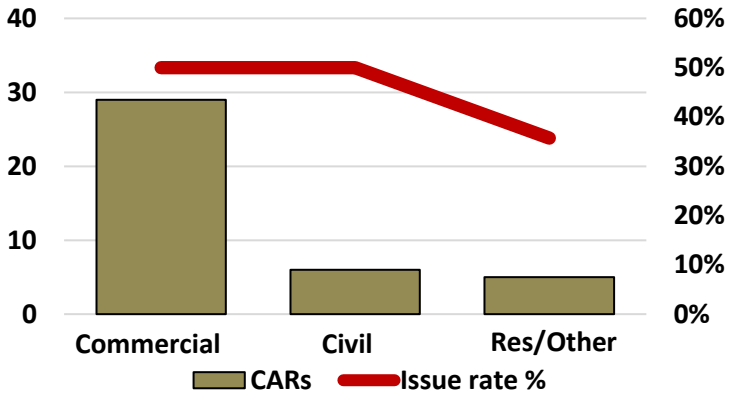

## Issue Rate by Time Accredited



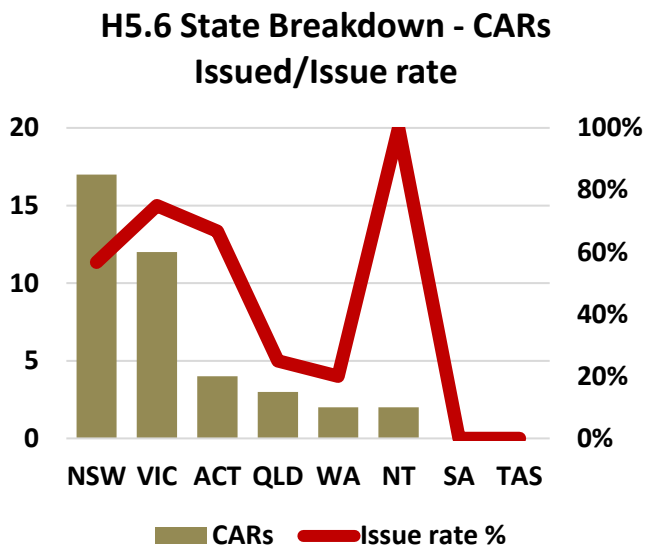

- Only one applicant applying for accreditation was tested on H5.6 and a CAR was issued.
- Companies accredited for fewer than three years had a non-compliance rate of **53%**.
- H5.6 has the equal highest issue rate for companies accredited for greater than three years, at **46%**.

- H5.6 was reviewed **58** times on commercial projects, **12** times on civil projects and **14** times on residential projects.
- The non-compliance rate was lowest for residential projects at **36%**.
- The non-compliance rate was the same for civil and commercial projects at **50%**.

## H5.6 Type of Construction - CARs/ Issue Rate



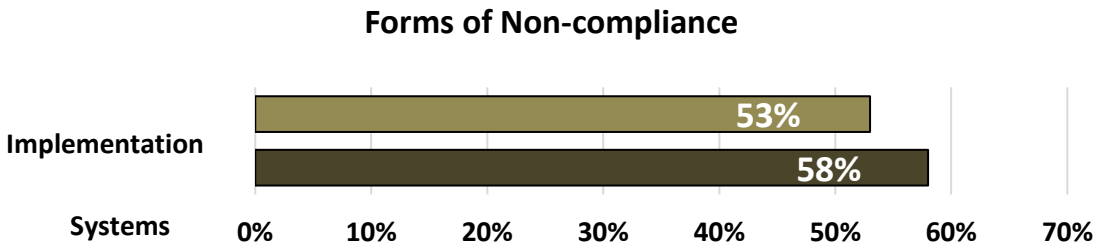
# Scaffolding Audit Sub-criteria – H5.6 (cont.)




| H5.6 | CARs | Reviewed | Issue rate % |
|---|---|---|---|
| NSW | 17 | 30 | 57% |
| VIC | 12 | 16 | 75% |
| ACT | 4 | 6 | 67% |
| QLD | 3 | 12 | 25% |
| WA | 2 | 10 | 20% |
| NT | 2 | 2 | 100% |
| SA | 0 | 8 | 0% |
| TAS | 0 | 0 | n/a |

- 19 CARs related to systems, 17 related to implementation, and four related to both systems and implementation issues.

- Companies operating in New South Wales were issued with the greatest number of CARs, with an issue rate of **57%**.
- Companies operating in the Northern Territory had the highest issue rate of **100%**, although H5.6 was only reviewed twice.



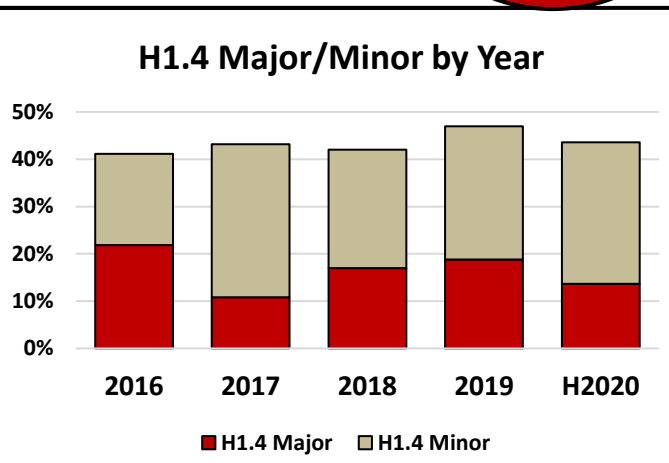
# Scaffolding Audit Sub-criteria - H1.4

**43.6%**
**Issue rate**

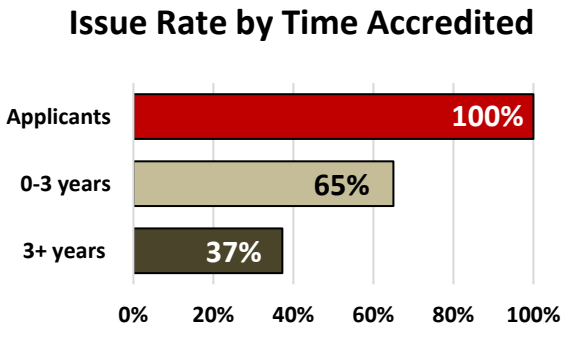
*Safe systems of work have been developed to ensure that where fall restraint/fall arrest equipment is being used on site: workers have been formally trained in the use of such equipment; there is a maintenance and inspection schedule for the equipment; attachment points are designed and certified by a qualified person; and attachment points are installed by a trained person and regularly inspected by a competent person.*

**Most Common Cause of Scaffolding Non-compliance**

- Failure to identify anchor points.
- Insufficient detail on formal training requirements.
- No process/records to ensure attachment points are designed, certified, and installed by a trained and qualified person, or an inspection regime is completed by a competent person.
- Systems failed on the frequency for equipment maintenance and inspection.




- The CAR issue rate for H1.4 has remained between **41%** and **47%** for the last five years.
- The Hazard 2020 non-compliance rate of **43.6%** is the second highest for this sub-criterion in this period, behind the **47%** for 2019.
- However, the proportion of major CARs issued during Hazard 2020 is the second lowest in the last five years.
- H1.4 is the most tested scaffolding sub-criterion across the five years, with 117 reviews during the campaign.

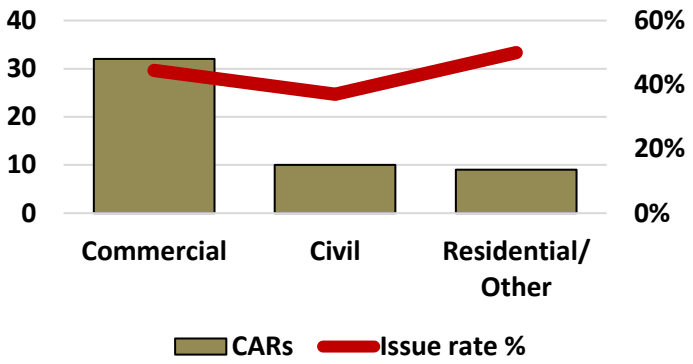



- Applicants being audited for accreditation were tested for H1.4 three times and were issued a CAR each time.
- Companies accredited up to three years made up **17.1%** of H1.4 times tested, yet accounted for **25.5%** of all CARs.
- This sub-criterion had the highest non-compliance rate of all scaffolding sub-criteria for companies accredited up to three years.

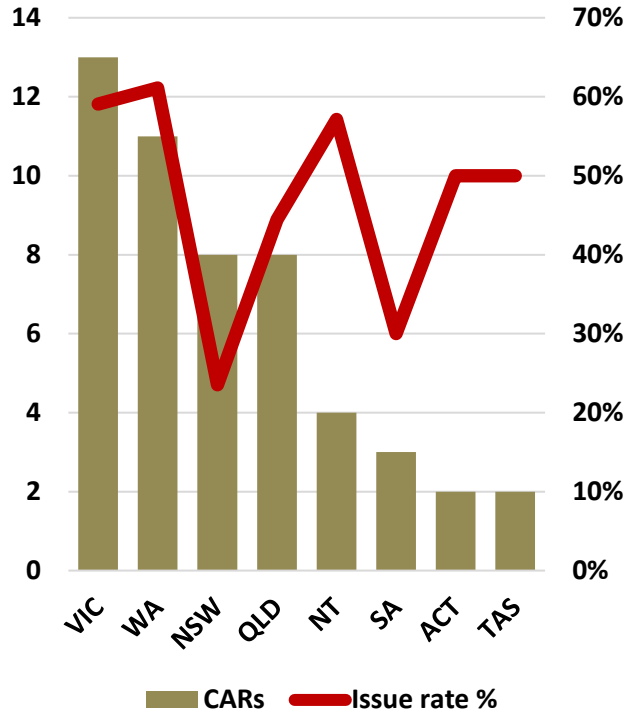
# Scaffolding Audit Sub-criteria - H1.4 (cont.)

- H1.4 was reviewed **72** times on commercial project audits, **27** times on civil construction audits, and **18** times on residential/other construction audits.
- Civil projects had a similar issue rate of **37%** to the commercial construction issue rate of **44%**, despite civil projects being reviewed one third as often.
- Residential/other projects had the highest issue rate at **50%**.

## H1.4 - Type of Construction - CARs/ Issue Rate



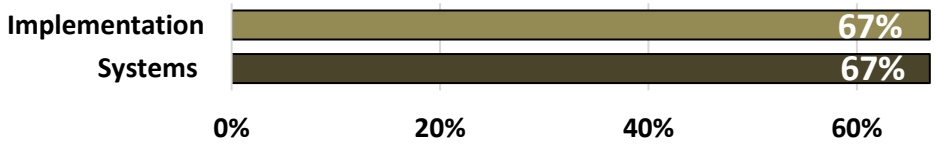

## H1.4 State Breakdown - CARs Issued/Issue rate




| H1.4 | CARs | Reviewed | Issue rate % |
|---|---|---|---|
| VIC | 13 | 22 | 59% |
| WA | 11 | 18 | 61% |
| NSW | 8 | 34 | 24% |
| QLD | 8 | 18 | 44% |
| NT | 4 | 7 | 57% |
| SA | 3 | 10 | 30% |
| ACT | 2 | 4 | 50% |
| TAS | 2 | 4 | 50% |

- Companies operating in Western Australia had the highest issue rate at **61%**, with 11 CARs issued.
- Companies operating in Victoria also had a high issue rate at **59%**, and the highest number of CARs issued (13).
- Although tested less than other states, companies operating in the Northern Territory, Australian Capital Territory and Tasmania all had very high issue rates of **50%** or above.
- New South Wales had the lowest issue rate of **24%**, despite being tested the most.

## Forms of non-compliance



# Scaffolding Audit Sub-criteria – H5.2

**32.1%**
**Issue rate**

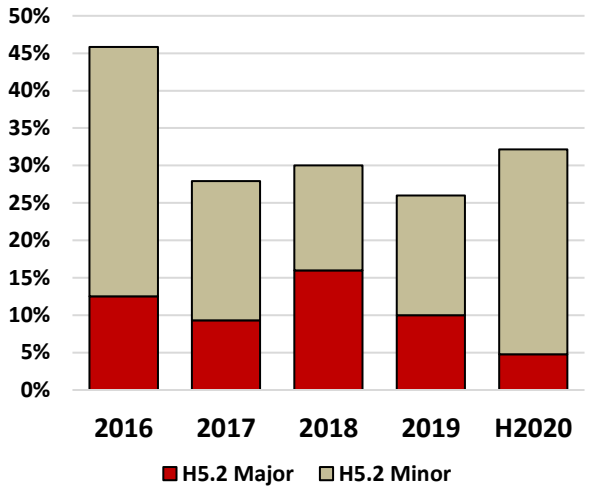
*Safe systems of work have been developed for the erection and dismantling of structural support systems and temporary structures, the prevention of persons falling, the management of potential falling objects and management of penetrations.*

**Most Common Cause of Non-compliance**

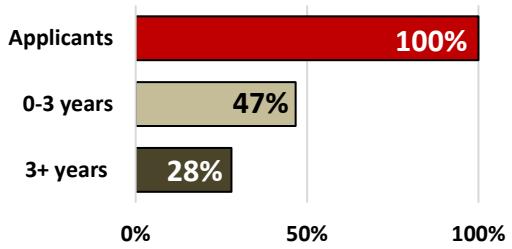
- **35%** of CARs related to falling objects.
- **26%** of CARs related to the unsafe erection/dismantling of scaffold.

- The non-compliance rate has remained largely stable since 2017.
- The issue rate of major CARs has fallen since 2018, with the campaign period's major CAR issue rate (**5%**) being the lowest in the past five years.
- H5.2 was tested the most during Hazard 2020 at 84 times, compared to 50 in both 2019 and 2018 and 43 in 2017.

**H5.2 Major/Minor by Year**



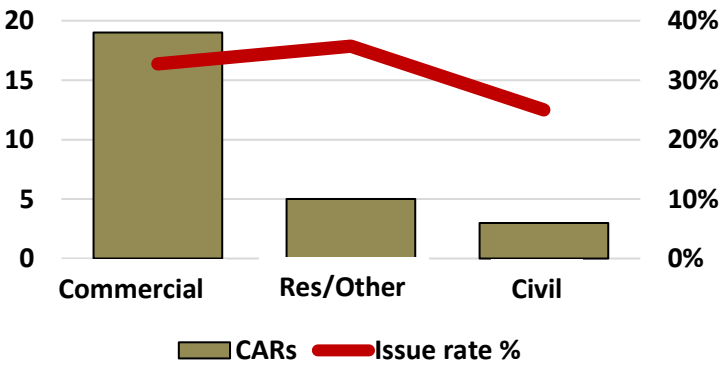

**Issue Rate by Time Accredited**



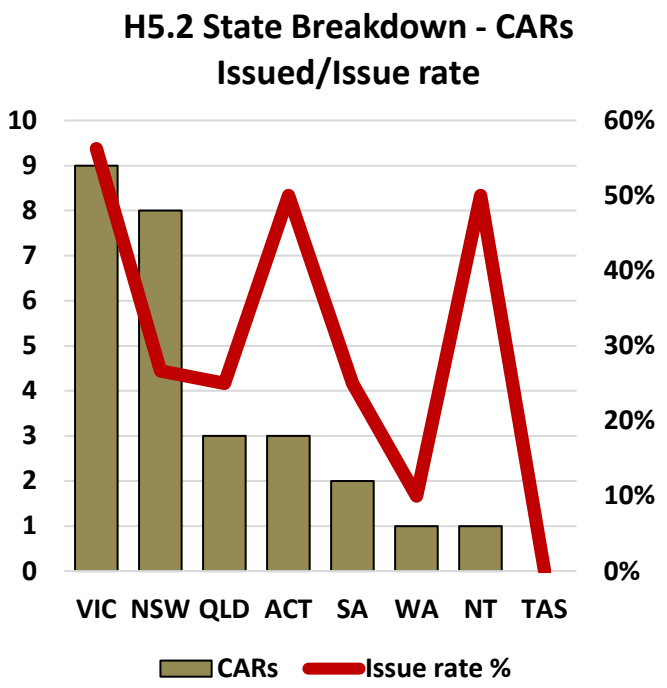

- Applicants being audited to gain accreditation were tested once on H5.2 and a CAR was issued.
- Companies accredited for fewer than three years accounted for **17.9%** of H5.2 audits yet accounted for **26%** of CARs issued.

- H5.2 was reviewed on **58** commercial projects, **14** residential/ other projects, and **12** civil projects.
- Commercial and residential projects had a similar non-compliance rate of **33%** and **36%** respectively, demonstrating similar levels of compliance.
- Civil projects had a lower non-compliance rate of **25%.**

**H5.2 - Type of Construction - CARs/ Issue Rate**



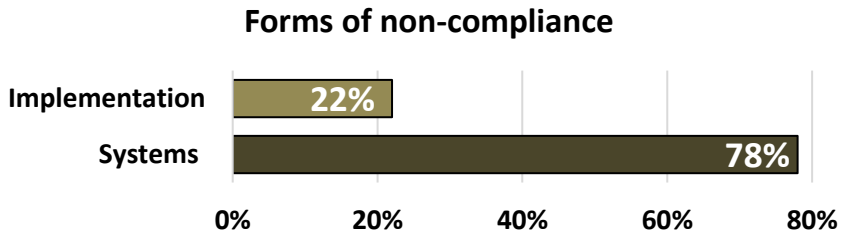
# Scaffolding Audit Sub-criteria – H5.2 (cont.)




| H5.2 | CARs | Reviewed | Issue rate % |
|---|---|---|---|
| VIC | 9 | 16 | 56% |
| NSW | 8 | 30 | 27% |
| QLD | 3 | 12 | 25% |
| ACT | 3 | 6 | 50% |
| SA | 2 | 8 | 25% |
| WA | 1 | 10 | 10% |
| NT | 1 | 2 | 50% |
| TAS | 0 | 0 | 0% |

- Companies operating in Victoria had the highest issue rate (**56%**) and the highest number of CARs issued (nine).
- Although companies operating in New South Wales had the second highest number of CARs issued, they had a below average issue rate of **27%.**

- 21 CARs (**78%**) were issued for systems, and six (**22%**) for implementation.
- No CARs were issued for both.



# Scaffolding Audit Sub-criteria – H5.7

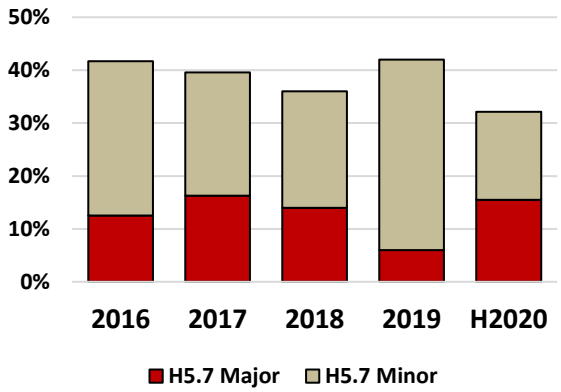
*The system ensures that structural support systems and temporary structures are regularly inspected to monitor the effectiveness of the system/structure in accordance with relevant legislation, codes of practice and Australian standards, manufacturer's requirements or where applicable, the drawing/plan.*

**32.1%**
**Issue rate**

**Common Cause of Non-compliance**

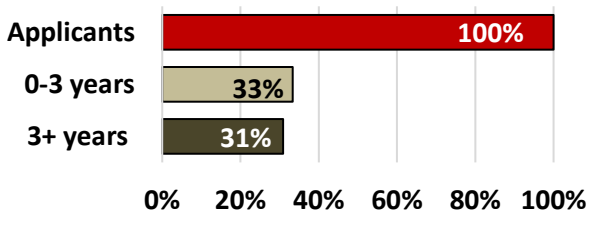
- **75%** of the CARs related to the failure to establish and implement defined processes for the following:
  - An initial inspection/handover as per the applicable drawing/plan and engineering requirements
  - An ongoing inspection schedule for all structural support systems and temporary structures.
- **11%** of the CARs issued were due to the failure to comply with the relevant Australian Standard.

**H5.7 Major/Minor by Year**




- The CAR issue rate remained consistent from 2016-2019, at around **40%**.
- However, for the campaign period, there was a decrease of nearly **10%** from 2019, with the non-compliance rate falling to **32%**.
- The major CAR issue rate during Hazard 2020 was **15%**, which is back around the 2017-2018 average after falling to **6%** in 2019.
- During Hazard 2020 period, the issue rate for minor CARs fell to **17%**, the lowest level in five years.

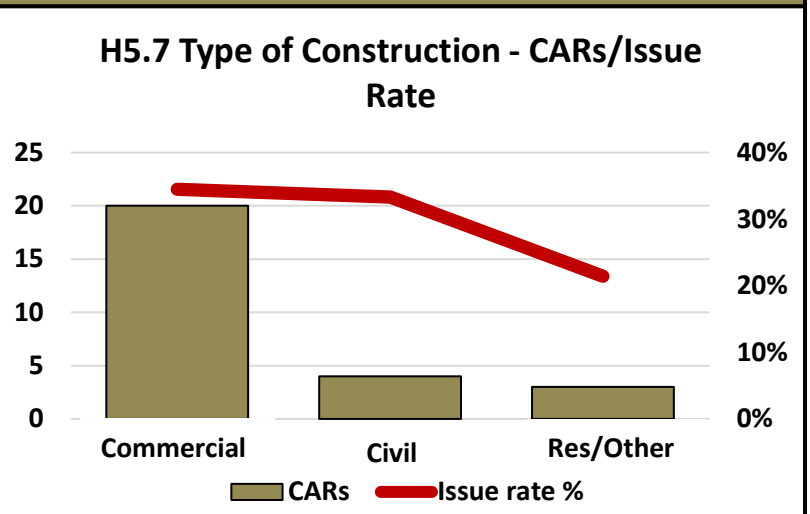
**Issue Rate by Time Accredited**

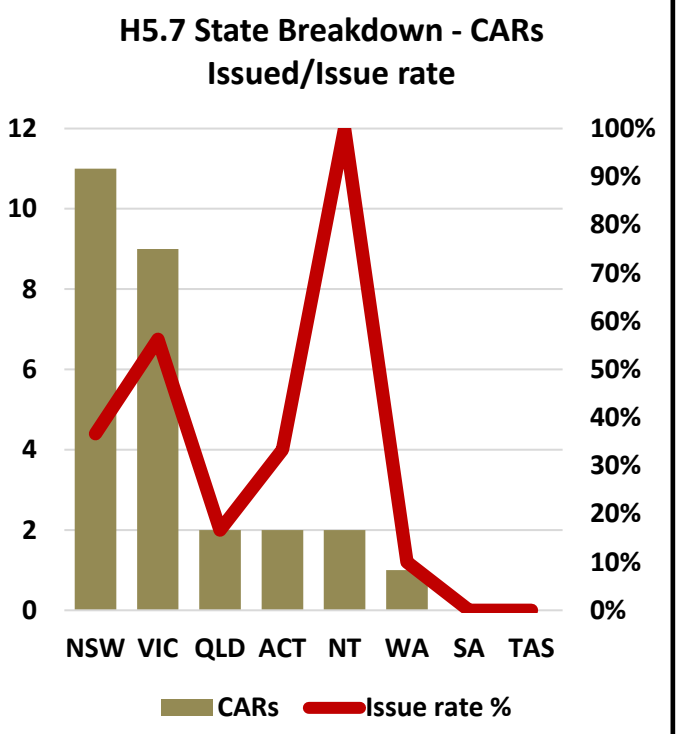



- Applicants being audited to gain accreditation were only tested once for this sub-criterion and a CAR was issued.
- Once accredited, the length of accreditation made little difference to the compliance rate with this sub-criterion.

# Scaffolding Audit Sub-criteria – H5.7 (cont.)

- H5.7 was reviewed **58** times on commercial projects, **12** times on civil projects, and **14** times on residential projects.
- The residential construction issue rate was the lowest at **21%**.
- The civil and commercial construction issue rates were similar at **33%** and **34%** respectively.

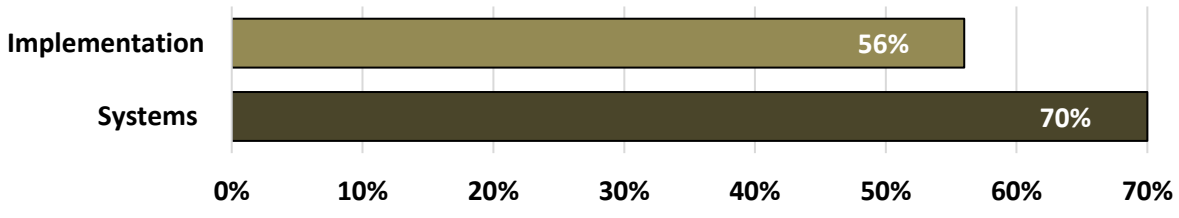



12 CARs were issued for system issues, eight CARs were issued for implementation issues, and seven CARs were issued for both.

| H5.7 | CARs | Reviewed | Issue rate % |
|---|---|---|---|
| NSW | 11 | 30 | 37% |
| VIC | 9 | 16 | 56% |
| QLD | 2 | 12 | 17% |
| ACT | 2 | 6 | 33% |
| NT | 2 | 2 | 100% |
| WA | 1 | 10 | 10% |
| SA | 0 | 8 | 0% |
| TAS | 0 | 0 | n/a |

- Companies operating in New South Wales had the greatest number of CARs issued with 11, but only had a midrange issue rate of **37%**.
- Companies operating in Victoria had the next highest issue rate of **56%**, with nine CARs issued from 16 audits.
- Companies operating in the Northern Territory had a **100%** CAR issue rate with two CARs from two times tested.



# Scaffolding Audit Sub-criteria – H5.5

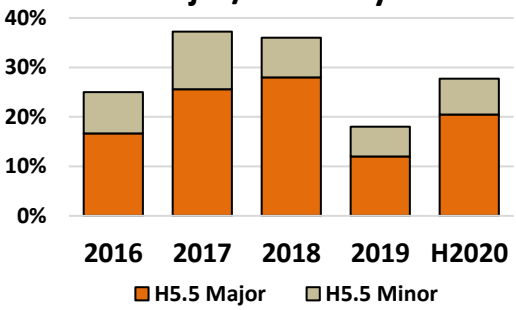
**27.7%**
**Issue rate**

*The system ensures that the building structures/materials/ foundations have been assessed and controls are in place prior to starting alterations to the structure or construction of temporary structures.*

## Most Common Cause of Non-compliance

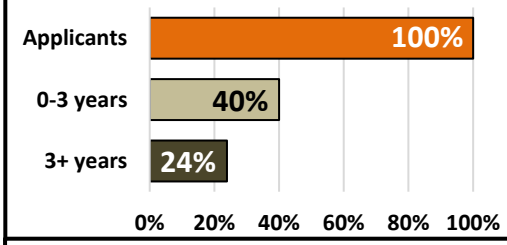
- **88%** of CARs issued related to the lack of assessment and management of the building structure/material/supporting foundation prior to construction of the company.
- **12%** of CARs issued related to failure to correctly plan/design/construct the temporary structure.

## H5.5 Major/Minor by Year



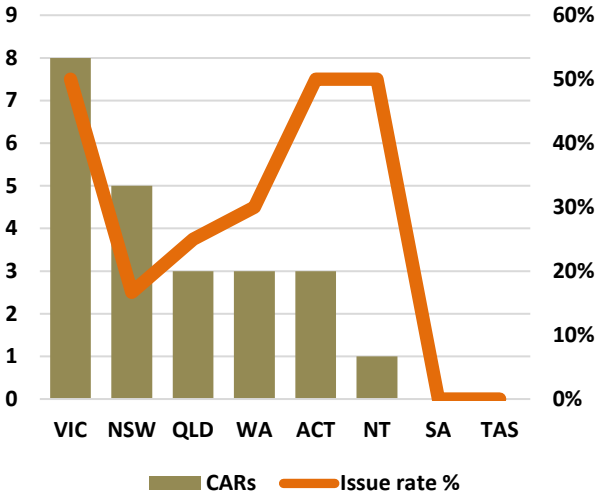

- The Hazard 2020 CAR non-compliance rate has increased significantly from 2019 and is roughly in line with the 2016-2019 trend non-compliance rate.
- Worryingly, **74%** of the CARs issued in Hazard 2020 were major. Major CARs have consistently made up approximately three quarters of total H5.5 CARs issued since 2016.
- There has been no consistent trend for the H5.5 CAR issue rate between 2016 and Hazard 2020.

## Issue Rate by Time Accredited




- Applicants being audited to gain accreditation were only tested once for H5.5 and a CAR was issued.
- There is a significant improvement in company performance after the first three years of accreditation **(40%)** and further improvement for companies accredited for over three years **(24%)**.

## H5.5 State Breakdown - CARs Issued/ Issue Rate




| State | CARs | Reviewed | Issue Rate % |
|---|---|---|---|
| NSW | 5 | **30** | 17% |
| VIC | **8** | 16 | **50%** |
| QLD | 3 | 12 | 25% |
| WA | 3 | 10 | 30% |
| ACT | 3 | 6 | **50%** |
| NT | 1 | 2 | **50%** |
| SA | 0 | 7 | 0% |
| TAS | 0 | 0 | n/a |

- Companies operating in Victoria were issued the most CARs and had the equal highest issue rate with the Australian Capital Territory and the Northern Territory **(50%)**.

# Scaffolding Audit Sub-criteria - H1.1

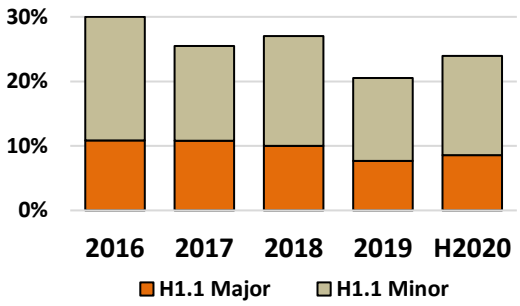
**23.9%**
**Issue rate**

*The risks associated with the potential for a person falling are identified, assessed and controlled in accordance with the Falls from Height Hierarchy of Control.*

## Most Common Cause of Non-compliance

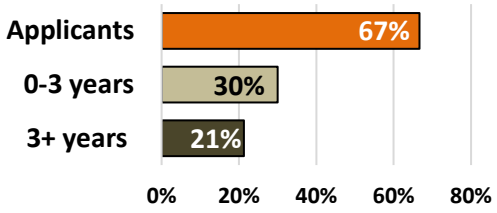
- **42%** of the CARs related to inadequate Hazard identification, risk assessment and control/safe systems of work.
- **22%** of the CARs related to unsafe erection/dismantling of scaffold.

## H1.1 Major/Minor by Year



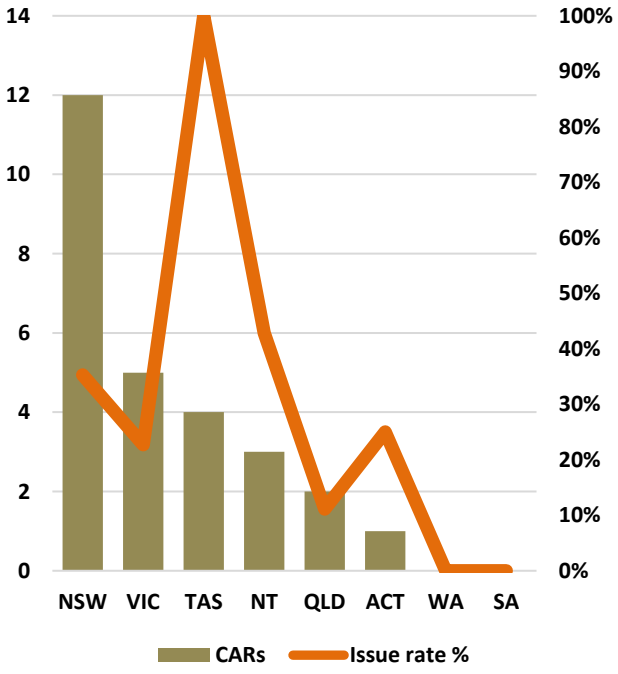

- The issue rate of H1.1 has trended down from 2016 to Hazard 2020, falling from **30%** in 2016 to **23.9%** for Hazard 2020.
- The major CAR issue rate was **10.8%** for 2016-2017, dropping to **7.7%** in 2019, before increasing slightly again to **8.5%** during Hazard 2020.

## Issue Rate by Time Accredited




- Applicants being audited to achieve accreditation were only tested three times for H1.1 and two CARs were issued.
- The non-compliance rate decreased from **30%** for companies accredited for less than three years, to **21%** for those accredited for more than three years.

## H1.1 State Breakdown - CARs Issued/ Issue Rate




| H1.1 | CARs | Reviewed | Issue rate % |
|---|---|---|---|
| NSW | 12 | 34 | 35% |
| VIC | 5 | 22 | 23% |
| QLD | 2 | 18 | 11% |
| WA | 0 | 18 | 0% |
| ACT | 1 | 4 | 25% |
| NT | 3 | 7 | 43% |
| SA | 0 | 10 | 0% |
| TAS | 4 | 4 | 100% |

- Companies operating in New South Wales were issued the most CARs, with a high issue rate of **35%.**
- All four companies operating in Tasmania that had Hazard 2020 audits testing H1.1 raised a CAR.
- Companies operating in Western Australia and South Australia both had issue rates of **0%** after being tested 18 and ten times respectively.

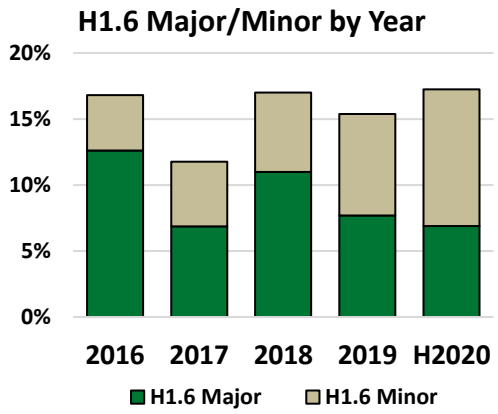
## Scaffolding Audit Sub-criteria – H1.6

**17.2%**
**Issue rate**

*The system ensures that there is safe access and egress for all areas where work at heights is being undertaken.*

**Most Common Cause of Non-compliance**

- **72%** of CARs issued related to systems.
- **39%** of CARs issued related to implementation.
- **65%** of the CARs issued were due to inadequate or obstructed access/egress.
- **35%** of the CARs were due to failure to properly plan for safe access and egress, for example in HIRAC, SWMS, Scaffold Plan, and other safe systems of work.




**Trend**

The CAR issue rate has remained below **20%** over the past five years. However, the CAR issue rate for Hazard 2020 was the highest of the past five years, at **17.2%**.

## Scaffolding Audit Sub-criteria – H5.1

**14.3%**
**Issue rate**

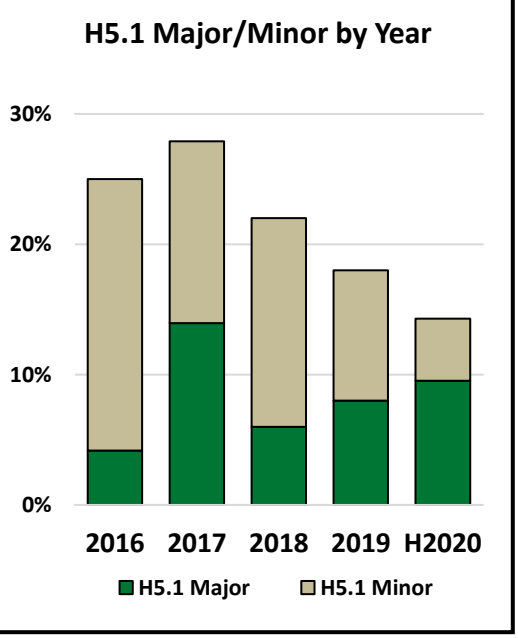
*The risks associated with structural alterations, structural support systems and temporary structures are identified, assessed and controlled in accordance with the Hierarchy of Control.*

**Most Common Causes of Non-compliance**

- **92%** of CARs issued related to systems.
- **8%** of CARs issued related to implementation.
- **50%** of CARs were issued due to Hazard Identification, Risk Assessment and Control (HIRAC)/Safe Systems Of Work (SSOW).
- **15%** of CARs were issued due to Safe Work Method Statements (SWMS).

**Trend**

- The total CAR issue rate for H5.1 has declined since 2017 by an average of **4.5%** per year.
- The proportion of Major CARs increased during Hazard 2020 to reach its highest point in three years.



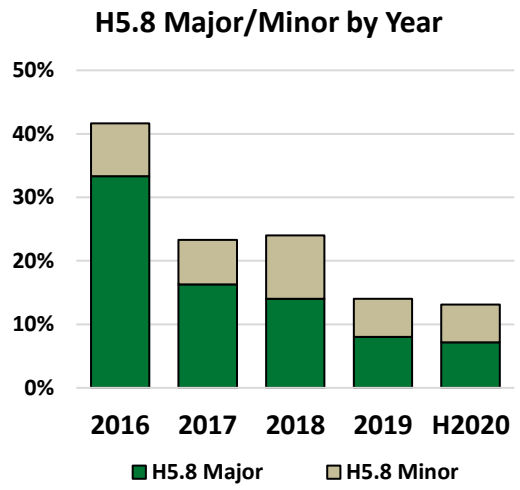
## Scaffolding Audit Sub-criteria – H5.8

**13.1%**
**Issue rate**

*The system ensures that emergency procedures are established specific to the scope of works.*

**Most Common Cause of Non-compliance**

- **64%** of CARs issued related to systems.
- **36%** of CARs issued related to implementation.
- Common causes of CARs related to:
  - The failure to have emergency procedures specific to temporary structures, or structural collapse, addressing falls and/or falling objects
  - Procedures that were either incomplete or not up to date.



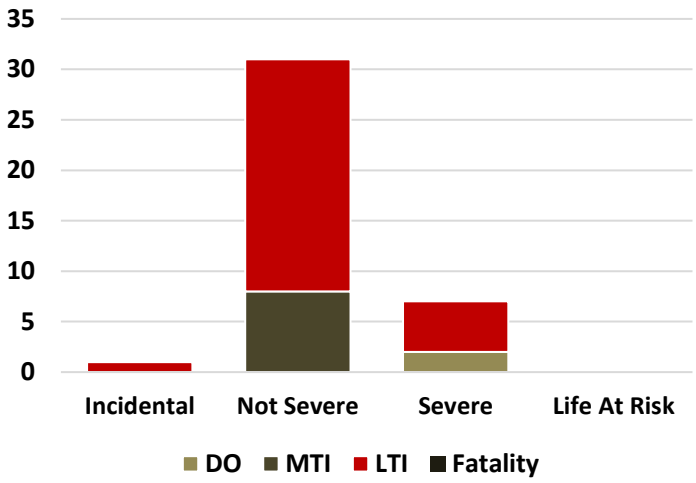

**Trend**

The CAR issue rate has declined significantly since 2016 by an average of **7%** per year, falling from **41%** in 2016 to **13%** during Hazard 2020.

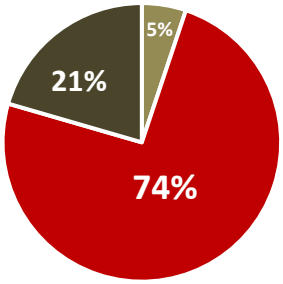
# Hazard 2020 - Scaffolding Incident Analysis

- **39** incidents reported to the OFSC by accredited companies related to scaffolding.
- Of the **39** incidents**, 37** resulted in injuries, with only **two** Dangerous Occurrences (DO).
- **74%** of these incidents were classified as LTIs.
- **Seven** incidents reported were classified as severe, making up **18%** of all scaffolding incidents reported.
- There were no fatalities during Hazard 2020 relating to scaffolding hazards.

**Scaffolding Incident Severity by Type**




**Incident Type Percentage Comparison**




**Number of Scaffolding Incidents by Type and Severity**

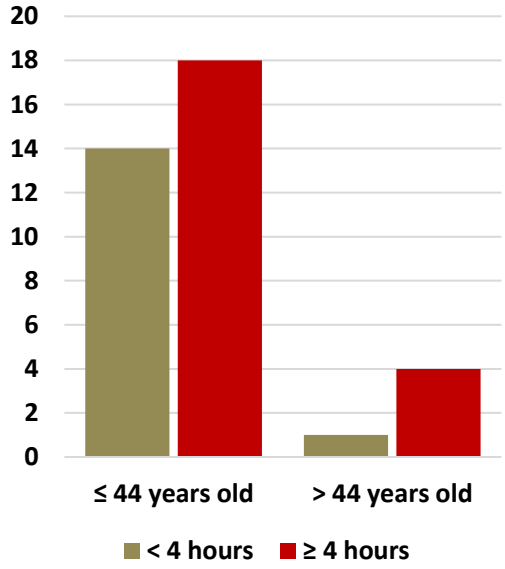
| | DO | LTI | MTI | Fatality | Total |
|---|---|---|---|---|---|
| **Incidental** | 0 | 1 | 0 | 0 | 1 |
| **Not Severe** | 0 | **23** | 8 | 0 | 31 |
| **Severe** | 2 | 5 | 0 | 0 | 7 |
| **Life At Risk** | 0 | 0 | 0 | 0 | 0 |
| **Total** | 2 | 29 | 8 | 0 | **39** |

**Age of Worker vs Hours on-site when injury occurred**

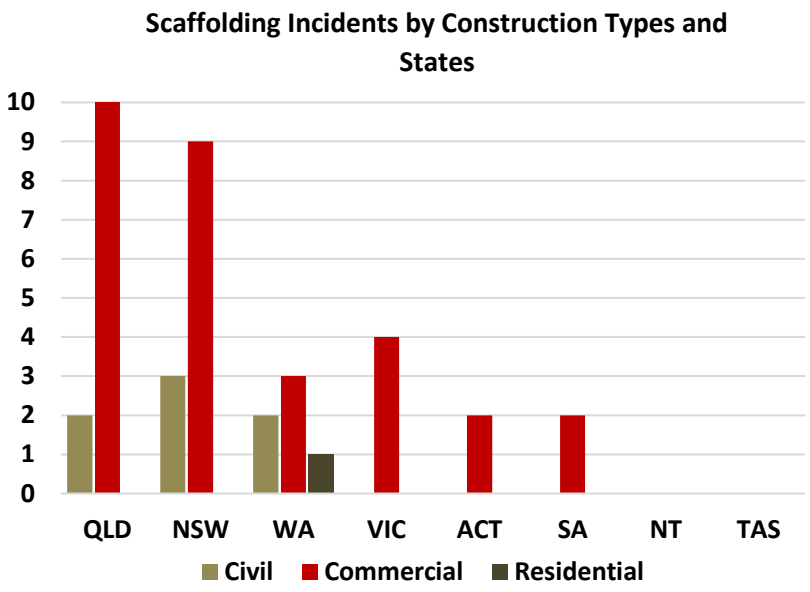
| | <4 Hours On-site | ≥4 Hours On-site | Total injuries | % |
|---|---|---|---|---|
| **≤44 years old** | 14 | 18 | **32** | 86.5 |
| **>44 years old** | 1 | 4 | 5 | 13.5 |

- Younger workers make up the vast majority of scaffolding injuries (**86.5%**) with time on-site making little difference.
- Of the **five** scaffolding related injuries reported involving older workers, **80%** occur when the worker has been on-site for four hours or more.
- The total number of incidents, 39, is a small dataset. However, as with the mobile plant incidents, the increase of injuries for workers over **44** years of age when on-site for four hours or more is substantial.

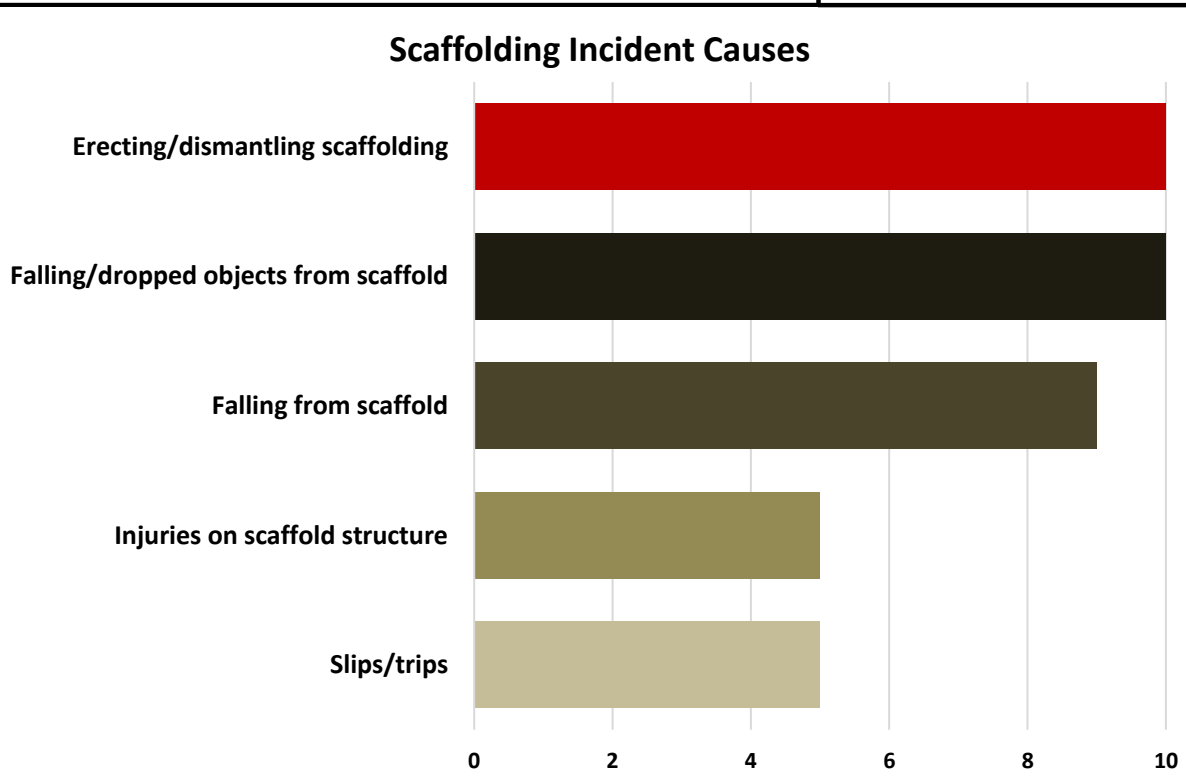
**Scaffolding Injuries - Worker Age vs Hours On-site**



# Hazard 2020 - Scaffolding Incident Analysis (cont.)




- One-third of all scaffolding incidents reported during Hazard 2020 occurred on QLD sites, with over **80%** occurring on commercial construction projects.
- **31%** occurred on NSW sites, where double the number of incidents occurred on commercial construction sites than on civil.
- WA and Victorian sites also featured a higher volume of commercial incidents, with **eight** combined.




- The highest numbers of scaffolding incidents occurred due to the erecting and dismantling of scaffolding and falling/dropped objects, both occurring ten times. These two causes combined account for **51%** of the total incidents.
- Falling from scaffold was the next highest cause, with nine occurrences.

# Additional Resources

## Education

There are a wide range of different educational materials available on the OFSC's website. At www.fsc.gov.au you can access all the Hazard 2020 resources on mobile plant and scaffolding including fact sheets, webinars, online educative forums, case studies, guides and checklists.

## Fact Sheets

Mobile plant and scaffolding hazard management fact sheets were published on the OFSC's website when the Hazard 2020 campaign was launched. They cover onsite risks, company requirements, key focus areas, principles of hazard management and an overview of all Scheme audit criteria. There is also a fact sheet called Verification of Competency – Mobile Plant that contains additional information about the standards and expectations of the OFSC in relation to competency requirements for the operation of mobile plant and Scheme Audit Criteria.

## Webinars

The OFSC's Hazard 2020 webinar series was highly successful with over 1,500 cumulative attendees across five sessions. They brought together speakers from industry, technical experts and associations to foster learning and collaboration on WHS issues. The webinars were not an endorsement of companies, products or methods, but provided an opportunity to share the experiences of industry in dealing with WHS challenges relating to scaffolding and mobile plant.

### Webinar One: Mobile Elevated Work Platforms

Scheme accredited company CPB Contractors presented on its use of secondary guarding systems on Mobile Elevated Work Platforms (MEWP), one of the most common pieces of mobile plant on construction sites. The Elevating Work Platform Association (EWPA) presented an outline on EWPA guidance and on the functions of the EWPA. Federal Safety Officer (FSO) Brett Jones provided information on how the Scheme audit criteria applies to MEWPs.

### Webinar Two: Scaffolding Tampering and Managing Principles

The second Hazard 2020 webinar focussed on scaffolding tampering and scaffold management principles. Probuild Constructions presented on anti-tampering scaffold options available through the new technology Scaffshield. FSO Ralph Willson gave a presentation on scaffolding management from a Scheme audit criteria perspective.

### Webinar Three: Articulated Mobile Crane Risk Management

The third Hazard 2020 webinar featured a presentation by Rory Bracken and Tom Clarke from Fulton Hogan, and Brandon Hitch from the Crane Industry Council of Australia (CICA). This webinar provided practical guidance on use of articulated mobile cranes. FSO Julian Bedford also presented on mobile crane risk management in relation to Accreditation Scheme criteria.

### Webinar Four: Ground Conditions for Crane Risk Management

The fourth Hazard 2020 webinar focused on assessing and managing ground conditions to mitigate crane risks. Presentations were given by CICA's Technical Project Engineer, Alice Edwards, and Boom Logistics Engineering Manager, Nick Morris, on ground bearing capacity for crane stability. FSO Craig Hutton also presented on managing and assessing ground conditions for crane work in relation to the Scheme audit criteria.

### Webinar Five: Lift Planning for Crane Risk Management

The fifth Hazard 2020 webinar featured presentations by Brandon Hitch of CICA and Stuart Edwards from Edwards Heavy Lift. This webinar features an overview of lift plan definitions and terminology, advice on what level of lift planning is suitable for different types of lifts, and discussion on the relevant checklists, templates, registers, and plans that can be employed in each instance.

Following the Hazard 2020 webinar series, responses to the remaining questions not answered in the webinar Q&A sessions were published on the OFSC's website. There are two documents covering the additional Q&A's; Ground Conditions for Cranes and Articulated Mobile Cranes.

### Webinar Six: Scaffolding Risk Management

The sixth online safety webinar included presentations by FSO Julian Bedford, who spoke about the WHS Accreditation Scheme audit criteria that applies to scaffolding; Daniel Dunne (HSEQ Manager at Scheme accredited builder Paynters) gave a presentation on scaffolding training, plans, design, scaffolding components and inspection criteria; and Jordy Adshead (HSEQ Manager at scaffolding consultant company BASE Industries) presented on scope and design, planning and installation, handover process, inspections, and non-compliance issues dismantling the scaffold. FSC David Denney moderated a Q&A session addressing some of the key questions: topics include requirements for a scaffold designer, when to use a scaffold plan, reviewing handover certificates, and identifying and managing scaffold tampering.

## Case Studies

### COLAS

Case studies developed by the OFSC highlight innovative risk management approaches being used by accredited companies. The first video case study features Scheme accredited company COLAS. COLAS implemented halo lighting systems on its large plant so exclusions ones are more clearly identifiable and to reduce the risk of workers being struck by plant.

### Bouygues Construction Australia Pty Ltd

Another video case study on mobile plant safety focuses on how the WestConnex project uses innovative safety technologies to overcome hazards and improve safety management surrounding the use of mobile plant. Bouygues Construction have introduced a rotating tool for the movement of pre-cast elements and utilises the BLAXTAIR Proximity Detection Systems that scans the blind areas surrounding machinery and mobile plant.

### Paynters Pty Ltd

This video case study focuses on scaffolding safety featuring the initiatives Paynters have developed and implemented. These initiatives include an internal scaffolding training for staff and a focus on site specific risk management.

## Guides and Checklists

During the Hazard 2020 campaign, the OFSC published a range of new checklists and guidelines for scaffolding and mobile plant on its website to promote best practice.

### Scaffold Checklist

The OFSC developed a new Scaffold Checklist designed to help principal contractors manage risk when commissioning scaffolding work. This checklist has three sections to assist contractors throughout the stages of scaffolding work; prior to the erection of scaffolding, during the erection of scaffolding, and prior to scaffolding being placed into service/following modification/reinspection.

### Franna Guide

Articulated mobile cranes, commonly referred to as Frannas, are the most common form of cranes used on Australian building sites. The OFSC developed a new infographic "Thinking of using a Franna?" as an easy to follow workflow to help builders work in a safe and structured way on-site. This is designed to be used in conjunction with and in reference to company's existing WHS management systems. Additional information and a detailed guidance on use of articulated mobile cranes can be found in the OFSC's Hazard 2020 safety webinars.

### Ground Conditions Guide

The Office of the Federal Safety Commissioner (OFSC) has developed new guidance - Considerations for Mobile Crane Ground Conditions - to help principal contractors to safely plan and use mobile cranes. Developed in consultation with FSOs and the Crane Industry Council of Australia, this new guidance workflows the process of verifying the capacity of the ground to safely carry the weight of the crane under load.

### FSC Audit Criteria

A detailed explanation and guide on the FSC Audit Criteria can be found here.

# Glossary

## Federal Safety Officer (FSO)

Federal Safety Officers (FSOs) are consultants engaged by the OFSC to conduct audits under the Scheme. FSOs are selected through a tender process run periodically by the OFSC. Once they have been selected through the tender process, FSOs undergo a two-stage engagement process. Firstly, they are engaged as consultants to the Attorney-General's Department and by way of a Deed of Standing Offer (as set out in the tender). Following this, they are appointed as FSOs by the FSC under a legislative instrument, giving them the legal authority to enter sites and conduct audits on behalf of the FSC.

## Scheme Audits

As part of the Work Health and Safety Accreditation Scheme, companies are required to undergo onsite audits to both become accredited and maintain accreditation. At any onsite audit, a Corrective Action Report (CAR) can be raised.

## Corrective Action Report (CAR)

A Corrective Action Report (CAR) is a formal finding made by FSOs during the Scheme auditing process to identify where companies need to take further action. An FSO raises a CAR when they determine that a certain aspect of the system being audited does not conform to the OFSC audit criteria. This assessment is based on their review of documentary evidence and observation of onsite activities.

## Incident Reports

- Dangerous occurrence - An incident where no person is injured, but could have been injured, resulting in Serious Personal Injury, Incapacity or Death. Also commonly called a “near miss.”
- MTI (Medically Treated Injury) - An MTI is a work-related occurrence that results in treatment by, or under the order of, a qualified medical practitioner, or any injury that could be considered as being one that would normally be treated by a medical practitioner but does not result in the loss of a full day/shift.
- LTI (Lost Time Injury) - An LTI is a work-related occurrence that results in a permanent disability or injury resulting in time lost from work of one day/shift or more.
- Fatality - A work-related occurrence that results directly or indirectly in the death of a person onsite (including deaths due to natural causes which occur on the project site).

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## Hazard 2020 Audit Sub-Criteria

The following Audit Sub-Criteria were used during the targeted audits focused on mobile plant and scaffolding.

| Mobile plant sub-criteria | | Scaffolding sub-criteria | |
|---|---|---|---|
| H16.1 | The risks associated with the use of mobile plant are identified, assessed, and controlled in accordance with the Hierarchy of Control. | H1.1 | The risks associated with the potential for a person falling are identified, assessed and controlled in accordance with the Falls from Height Hierarchy of Control. |
| H16.2 | The system ensures that a Plant Risk Assessment is carried out on all items of plant prior to use on-site. | H1.4 | Safe systems of work have been developed to ensure that where fall restraint/fall arrest equipment is being used on site: workers have been formally trained in the use of such equipment; there is a maintenance and inspection schedule for the equipment; attachment points are designed and certified by a qualified person; and attachment points are installed by a trained person and regularly inspected by a competent person. |
| H16.3 | Safe systems of work are established for the operation of mobile plant taking into account; the operator manual; outcomes from the plant risk assessment; site specific requirements; and the need for ROPS and FOPS. | | |
| H16.4 | Safe systems of work have been developed for all above ground and underground services taking into account; identification and location of services; management of works adjacent to services; and any necessary liaison with the asset owner. | H1.6 | The system ensures that there is safe access and egress for all areas where work at heights is being undertaken. |
| | | H5.1 | The risks associated with structural alterations, structural support systems and temporary structures are identified, assessed, and controlled in accordance with the Hierarchy of Control. |
| H16.5 | Safe systems of work have been developed for the use of mobile cranes taking into account; ground conditions; development of lift plans in accordance with relevant legislation, codes of practice and Australian standards; and lifting of materials and workers. | H5.2 | Safe systems of work developed for the erection and dismantling of structural support systems and temporary structures; prevention of persons falling; management of potential falling objects; and management of penetrations. |
| H16.6 | The system ensures there is an inspection and maintenance program for rigging and lifting equipment. | H5.4 | The system ensures that; a scaffold plan has been developed by a qualified person; and changes to the installation design are authorised and signed off by a qualified person; or a risk assessment has been conducted to determine the need for a Scaffold Plan. |
| H16.7 | The system ensures that movement of plant and vehicles on-site is controlled. | H5.5 | The system ensures that the building structures/materials/foundations have been assessed and controls are in place prior to starting alterations to the structure or construction of temporary structures. |
| H16.8 | The system ensures that all workers operating mobile plant are licensed trained or competent. | | |
| H16.9 | The system ensures there is an inspection program that is specific to the needs of the type of mobile plant, taking into account; regulatory inspections and registration; manufacturers' inspection requirements; pre-start inspections; and commissioning prior to use on-site. | H5.6 | The system ensures that structural support systems and temporary structures are installed by a competent person and verified as correctly installed prior to use in accordance with relevant legislation, codes of practice and Australian standards; manufacturers' requirements; or where applicable the drawing/plan. |
| H16.10 | The system ensures that there is a process for the ongoing maintenance of mobile plant. | H5.7 | The system ensures that structural support systems and temporary structures are regularly inspected to monitor the effectiveness of the system/ structure in accordance with relevant legislation, codes of practice and Australian standards; manufacturer's requirements; or where applicable the drawing/plan. |
| H16.11 | The system ensures that emergency procedures are established specific to the scope of works. | | |
| H16.12 | Other hazard-related activity. | H5.8 | The system ensures that emergency procedures are established specific to the scope of works. |