QUARTERLY REPORT

Extractives industry

2020/21 Q1

July to September

New Zealand Government

WORKSAFE
Mahi Haumaru Aotearoa

Foreword

Our mission is to transform New Zealand's health and safety performance towards world-class. To achieve this requires the commitment not just of WorkSafe, but of businesses, workers and a wide range of other players in the health and safety system.

We begin a new cycle with the Quarter 1 2020/21 report. In general we will continue with the same format, a mixture of industry information and sections on industry and the regulator's performance.

This year will hopefully see the implementation of the revised regulations, which will bring quarries into the existing mine regulations reporting criteria. The inclusion of quarries will now be late in this year's report cycle, and therefore unlikely to have any impact until 2021/22 reports. Therefore we will continue to produce two sets of data for some measures until the industry-wide common reporting is implemented.

While the statistics are important and provide us with good evidence of where we must put the greatest effort, the numbers do not tell us what that effort should look like.

This year we intend to add more learnings from the incidents reported and where there is important advice or direction to industry.

During last year we published a table of incidents reported that met the High Potential Incident classification. We noted we are averaging about 20 to 25 of these incidents per quarter, and that more fatalities were inevitable at this rate.

The types of incidents tended to fall into the areas that we are focused on – roads and other vehicle operating areas, mechanical plant, falls from height.

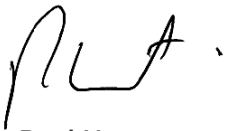
So this year we will add additional information that we derive from a selection of these HPI incident investigations, which will include any key findings and additional controls identified that we believe would benefit industry. (We will protect individual privacy and not identify organisations.)

We want this report not only to give reliable information about performance but to also inform industry about good and best practice initiatives.

In general, this quarterly report shows industry getting back to business as usual following a very unusual year.

Some observations and comments that I would like to make from this Q1 report are:

- The hours worked in tunnels is increasing and is becoming proportionally more significant in the mining and tunneling sector. This was predicted.
- The number of new Certificate of Competence (CoC's) issued is seemingly low. What is important to consider is that we are now seeing the 5 year expiry period for the initial issue of CoCs. What may be a more important measure is the net total of CoC holders available in industry – taking into account new CoC holders, renewed CoCs and the number of CoCs that have expired without renewal. We will gather this information during the next quarter and update the reporting criteria in the following report.
- The TRIFR rate for mines and tunnels is very low this quarter – We starting using the new online reporting form and will investigate if there is a change of reporting practice as an outcome of this changeover. TRIFR is not the most meaningful measure in the report and after we investigate we may provide more comment or amend the reporting form.



Paul Hunt
Chief Inspector Extractives

About this report

This quarterly health and safety performance report has been prepared by WorkSafe New Zealand to provide extractives-specific information to mining, tunnelling and quarrying operations in New Zealand.

The information is derived from a variety of sources but the predominant source is industry itself, through notifiable incident reporting and mining and tunnelling sector quarterly reporting.

The report also contains information on the activities of the regulator, as well as commentary on industry performance and focus areas for regulation.

Operators should use the information presented in this report to assist them in improving safety management systems and undertaking risk assessments at their sites.

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1.0
Industry profile

IN THIS SECTION:

1.1 Operations

3

Metalliferous opencast mines
Includes one mine under care and maintenance and one mine under rehabilitation

22

Coal opencast mines
Includes three mines under care and maintenance, and one undertaking rehabilitation

6

Metalliferous underground mines
Includes one mine under care and maintenance and two operating tourist mines

2

Coal underground mines
Includes one tourist mine under care and maintenance

9

Tunnels
Does not include tunnels that notified commencement but did not begin operating in the quarter

0

Coal exploration
No notifications of drilling commencement in the quarter

71

Alluvial mines
Number of mines that have been verified (65) or have notified of an Appointed Manager to WorkSafe (6) (includes 2 iron sands mines)

1,132

Quarries
Number of quarries that have been verified (898) or have notified of an Appointed Manager to WorkSafe (234)

An important aspect of understanding the health and safety performance of the extractives industry is to understand its makeup in terms of the number and scale of operations and the number and competency of workers involved.

There were 1,245 active operations in New Zealand as at the end of September 2020.

Active mining operations include those that are operating, intermittently operating, under care and maintenance, or undertaking rehabilitation, as well as tourist mines. Active quarries and alluvial mine numbers include operations that have been verified as actively or intermittently operating (that is, visited by WorkSafe), or have notified WorkSafe of an Appointed Manager.

The numbers of operations will vary from quarter to quarter. In these first quarterly reports, many of the changes are due to verification of sites by our inspectors, rather than actual changes to operations.

1.2 People

656

Metalliferous opencast mines

476 FTEs employed by mine operators and 180 FTEs employed by contractors

765

Coal opencast mines

673 FTEs employed by mine operators and 92 FTEs employed by contractors

402

Metalliferous underground mines

341 FTEs employed by mine operators and 62 FTEs employed by contractors

39

Coal underground mines

29 FTEs employed by mine operators and 9 FTEs employed by contractors

399

Tunnels

221 FTEs employed by mine operators and 178 FTEs employed by contractors

0

Coal exploration

No coal exploration in the quarter

278

Alluvial mines

Number of workers is known for 30 of the 71 alluvial mines that are verified and/or have notified of an Appointed Manager. The total number of workers has been extrapolated for the remaining 41 operations

3,499

Quarries

Number of workers is known for 1,068 of the 1,132 quarries that are verified and/or have notified of an Appointed Manager. The total number of workers has been extrapolated for the remaining 68 operations

The numbers of workers will also vary from quarter to quarter. Changes in the number of quarry and alluvial mine workers largely reflect the changes in the number of active operations verified by inspectors. Part of those verifications includes determining the number of workers at each operation.

A notable change is anticipated in the number of tunnel workers with two large tunnel operations in Auckland going operational in 2020. Thousands of different types of workers will be exposed to these operations over the duration of the projects. The number of tunnel workers reported this quarter increased by 223 from last quarter.

Figure 1 shows the total hours worked by the mining and tunnelling sectors in Q1 2020/21. The hours are separated into Employees and Contractors.

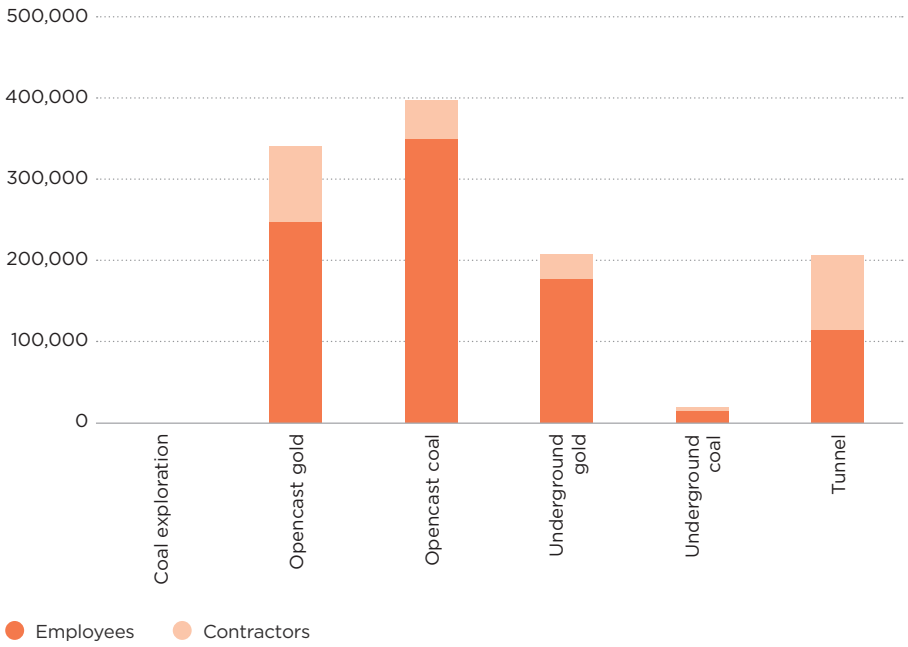

FIGURE 1:
Total hours worked by sector 2020/21 Q1

Figure 2 shows the number of Full Time Equivalents (FTEs) calculated from total hours worked for the mining and tunnelling sectors in Q1 2020/21. The hours are separated into Employees and Contractors.

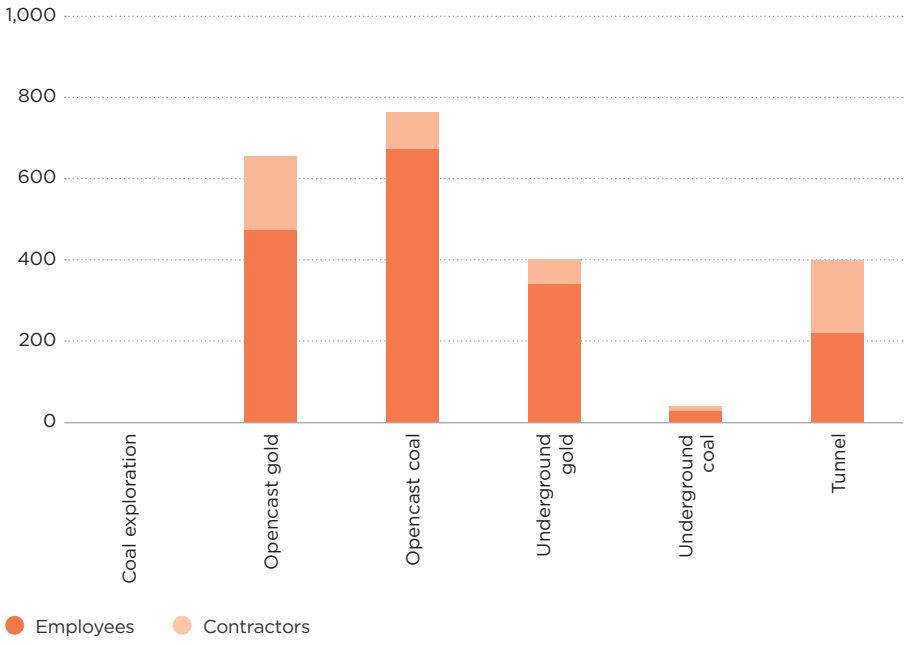

FIGURE 2:
Number of FTEs by sector 2020/21 Q1

1.3 Developing competence

WorkSafe has responsibility for setting the competency standards in the Extractives Industry. Improving the competence of the people in the industry is one of the most important aspects of improving health and safety performance. WorkSafe appoints the New Zealand Mining Board of Examiners (BoE) to recommend competency requirements, conduct oral examinations and to issue, renew, cancel or suspend Certificates of Competence (CoCs).

Table 1 provides a summary of the total number of CoCs issued by COC type since 2015, and the number of new COCs issued in Q1 2020/21. Number of CoC's issued includes CoC Renewals.

COC TYPE	TOTAL NUMBER OF COCs ISSUED 2015 to September 2020	NUMBER OF COCs ISSUED Q1 July to September 2020
A Grade Quarry Manager	315	1
B Grade Quarry Manager	482	16
A Grade Opencast Coal Mine Manager	71	2
B Grade Opencast Coal Mine Manager	64	2
A Grade Tunnel Manager	32	1
B Grade Tunnel Manager	74	6
Site Senior Executive	62	
First Class Coal Mine Manager	21	2
First Class Mine Manager	31	1
Coal Mine Deputy	44	4
Coal Mine Underviewer	35	3
Mechanical Superintendent	25	1
Electrical Superintendent	17	
Ventilation Officer	3	
Mine Surveyor	13	3
Site Specific	1	
Winding Engine Driver	3	
Total	1,293	42

TABLE 1: Certificates of Competence issued

Health and safety performance

IN THIS SECTION:

2.1 Notifiable events

Notifiable events are required to be reported to WorkSafe under S23(1), S24(1) and S25(1) of the Act, and for mining and tunnelling operations, under Schedule 5 of the Regulations. Notifiable events include any notifiable incidents, notifiable injuries or illnesses, or fatalities.

The tables below show the number of notifiable events and the number of operations that notified events for the previous two years and from July 2020 to September 2020 for mine and tunnels (Table 2) and quarries and alluvial mines (Table 3).

MINES AND TUNNELS	2018/19 QUARTERLY AVERAGE	2019/20 QUARTERLY AVERAGE	2020/21 Q1
Number of notifiable events	18	20	16
Number of operations that notified events	9	11	8

TABLE 2: Mines and tunnels – notifiable events and operations that notified events

Nineteen individual mines and tunnels from a total of 42 reported notifiable events in the past 12 months.

QUARRIES AND ALLUVIAL MINES	2018/19 QUARTERLY AVERAGE	2019/20 QUARTERLY AVERAGE	2020/21 Q1
Number of notifiable events	14	18	17
Number of operations that notified events	13	15	8

TABLE 3: Quarries and alluvial mines – notifiable events and operations that notified events

Thirty-nine individual quarries and alluvial mines from a total of 1,203 reported notifiable events in the past 12 months.

Figure 3 shows the number of notifiable events reported to WorkSafe by sector from October 2018 to September 2020.

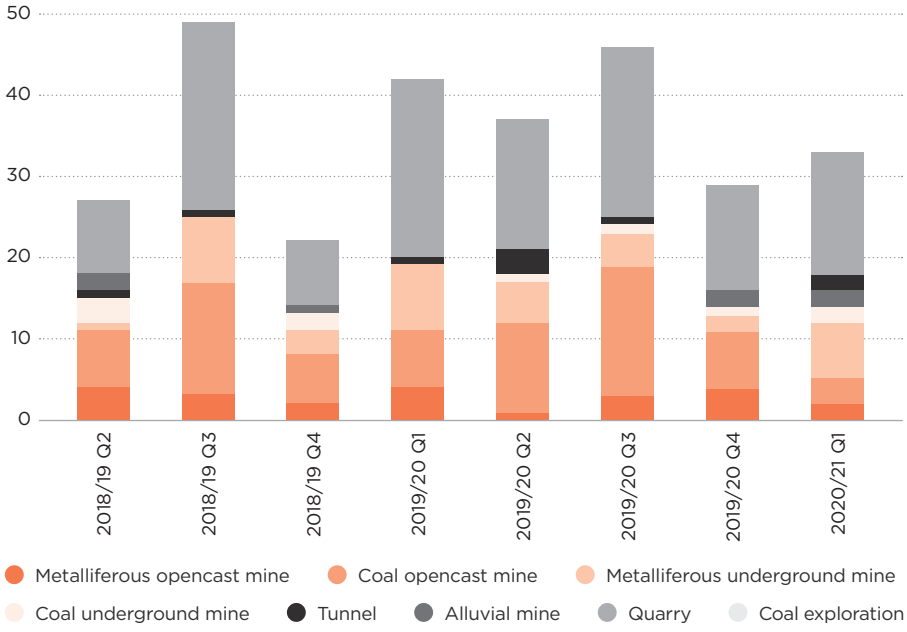

FIGURE 3: Notifiable events by sector

2.2 Injuries

Additional information about injuries is reported to WorkSafe for mining and tunnelling operations in the form of Quarterly Reports and Records of Notifiable Events under Schedules 6 and 8 of the Regulations. Figure 4 shows the number of injuries by injury type reported to WorkSafe by the mining and tunnelling sectors from October 2017 to September 2020. The graph also shows the rolling 12-month average for the Total Recordable Injury Frequency Rate (TRIFR), the rate of recordable injuries that occurred per million hours worked. The current TRIFR is 0.9 which is very low. We starting using the new online reporting form and will investigate if there is a change of reporting practice as an outcome of this changeover.

While TRIFR is not the only measure indicating the health of the industry, it is a useful indicator of how workers are being injured and should be interpreted in conjunction with other data such as notifiable event information.

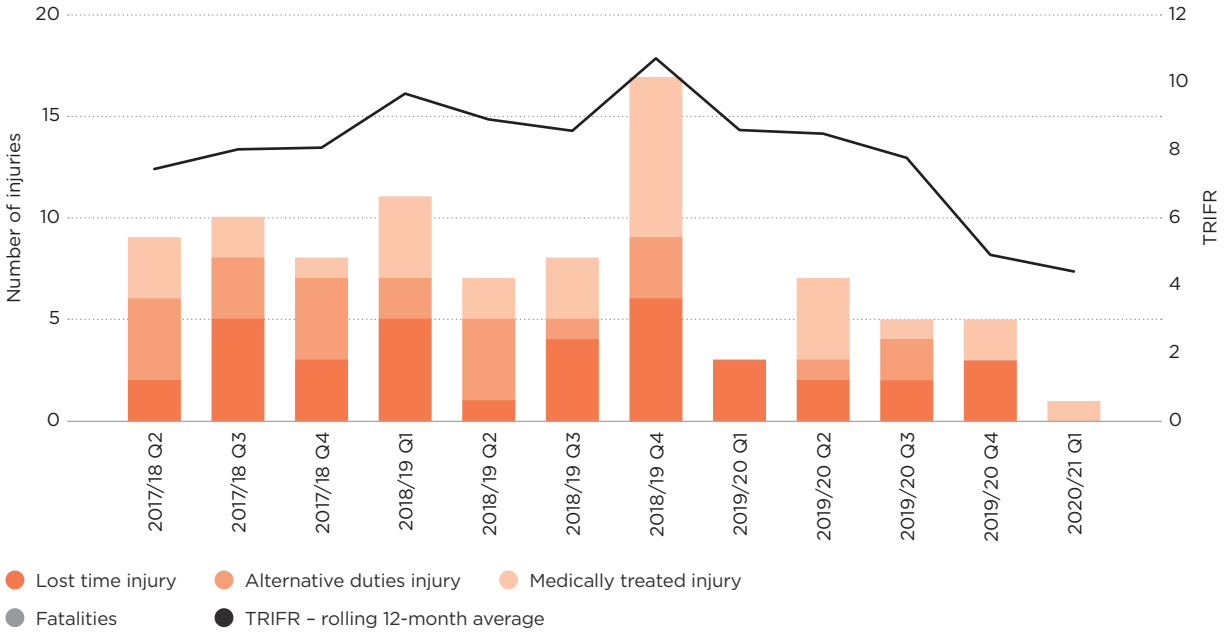

FIGURE 4: TRIFR – mines and tunnels

The following injury definitions are taken from Schedule 8 of the Regulations:

- **Lost-time injuries** are events that involved injury or illness of a mine worker that resulted in the inability of the worker to work for 1 day or more (not including the day of the event) during the reporting period (whether the worker is rostered on that day or not).
- **Alternative duties injuries** are events that involved injury or illness of a mine worker that resulted in the worker being on alternative duties during the reporting period.
- **Medical treatment injuries** are work-related injuries to mine workers that required medical treatment during the reporting period but did not require a day lost from work or alternative duties (other than the day of the event).

Figures 5 and 6 show the number of injuries resulting in more than a week away from work (WAFW), and the sum of the claims costs for those WAFW injuries for the mining and quarrying sectors from October 2017 to March 2020. It is important to note that the number of WAFW injuries for previous quarters may increase over time as ACC can grant claims up to 12 months after an injury has

occurred. The claims costs for WAFW injuries for previous quarters will also continue to increase over time as the true costs of those injuries are realised. It may take two years or more for the true costs to be realised. The average cost of extractives sector WAFW injuries between October 2017 and March 2019 was over $16,000 per injury.

FIGURE 5:
Number of injuries resulting in more than a week away from work

FIGURE 6:
Sum of claims cost (excluding GST) for injuries resulting in more than a week away from work

The data for these graphs comes from our System for Work-related Injury Forecasting and Targeting (SWIFT) database. It includes ACC data on approved work-related injury claims that resulted in more than a week away from work (WAFW). There is a seven month lag applied to the data to allow time for the claim information to stabilise, so data for the past two quarters is not yet available. While SWIFT data draws on ACC data, differences in counting criteria mean it may not match ACC counts, and should not be considered official ACC data.

2.3 Types of events

Figures 7 and 8 show the notifiable event categories for events notified to WorkSafe in the previous 12 months, by the mining and tunnelling sectors and the quarrying and alluvial mining sectors, respectively. The data shows that 52 percent of notifiable events in the mining and tunnelling sectors in the past 12 months have occurred in relation to vehicles and plant (32%), and fire, ignition, explosion or smoke (30%). These two categories are broken down in more detail in the following section. Sixty-four percent of notifiable events in the quarrying and alluvial mining sectors in the past 12 months involved the collapse, overturning, failure or malfunction of, or damage to plant (43%) and an implosion, explosion or fire (21%).

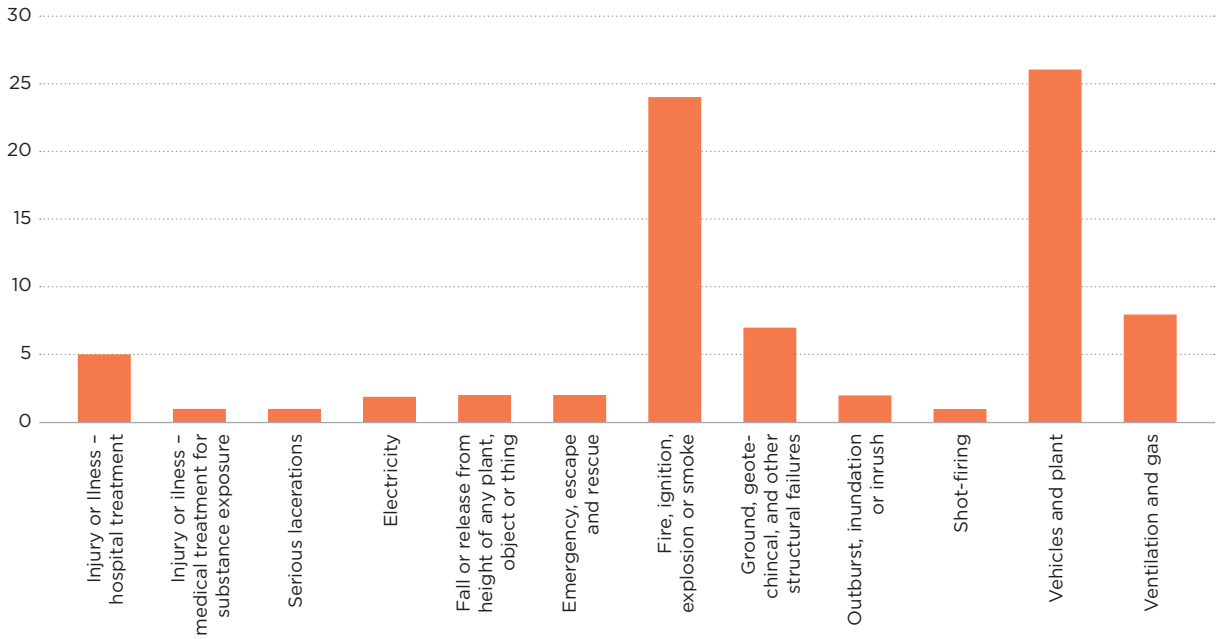

FIGURE 7: Mines and tunnels notifiable event categories for the previous 12 months

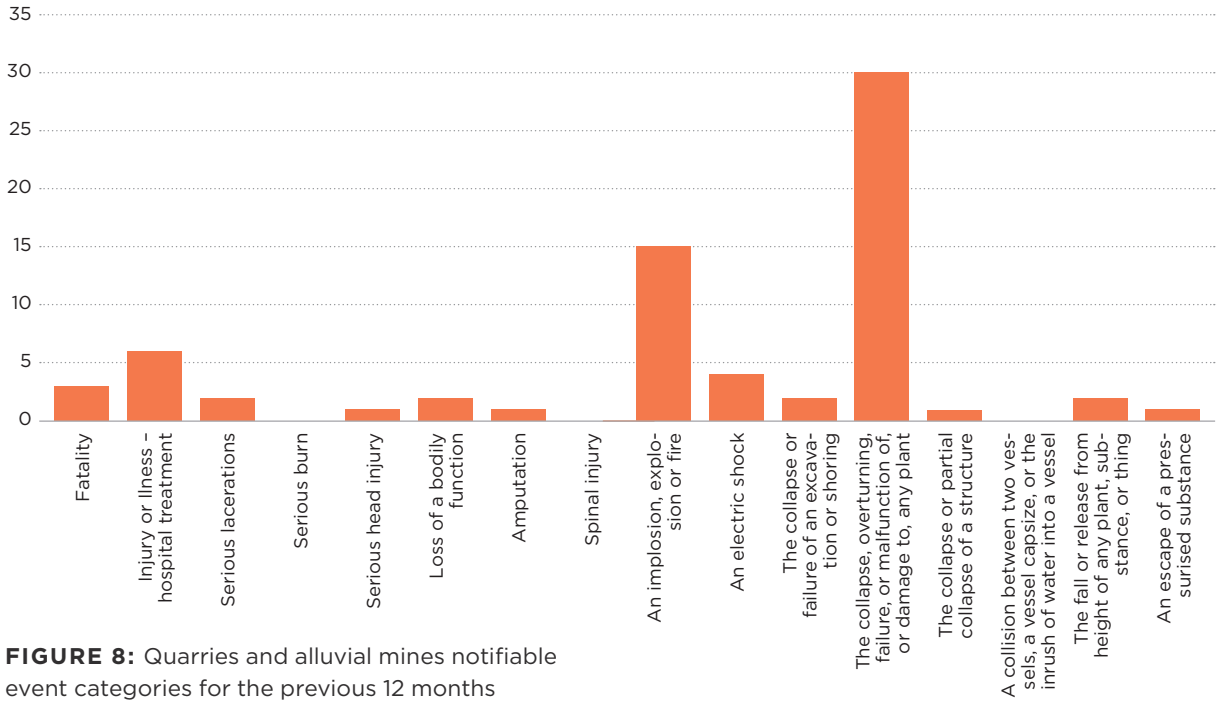

FIGURE 8: Quarries and alluvial mines notifiable event categories for the previous 12 months

2.4 Mine and tunnel focus areas

Where there is a high frequency of notifiable events in any Schedule 5 category, we have broken these events down in more detail to identify key focus areas. We will target our inspections to ensure that operators have adequate controls in place to address these risks.

Figures 9 and 10 break down the two largest notifiable event categories for mines and tunnels in the past 12 months into the corresponding Schedule 5 sub-categories. The data shows that for notifiable events related to fire, ignition, explosion or smoke, 86% involve fires on plant, mobile plant or in buildings associated with mining or tunnelling activities, and 14% involves spontaneous combustion. The vehicle and plant-related notifiable events involve collision of mobile plant with other plant (35%), overturning of mobile plant (19%), unintended movement or brake failure (23%), breach of a safety berm or windrow (19%) and tyre bursts (4%).

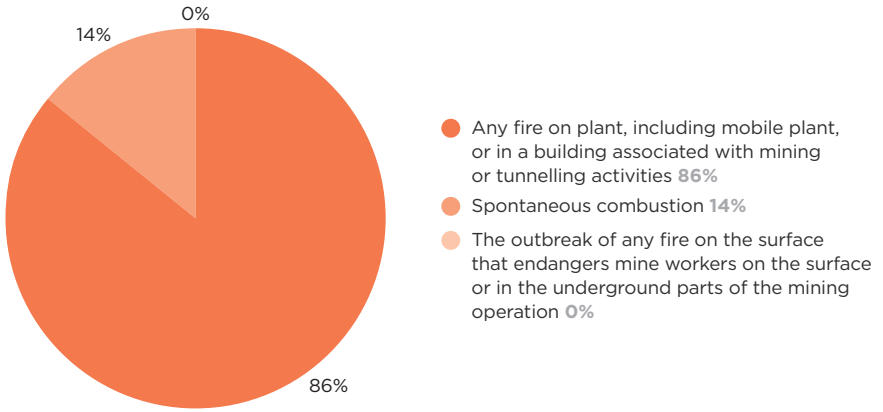

FIGURE 9: Fire, ignition, explosion or smoke-related notifiable event sub-categories

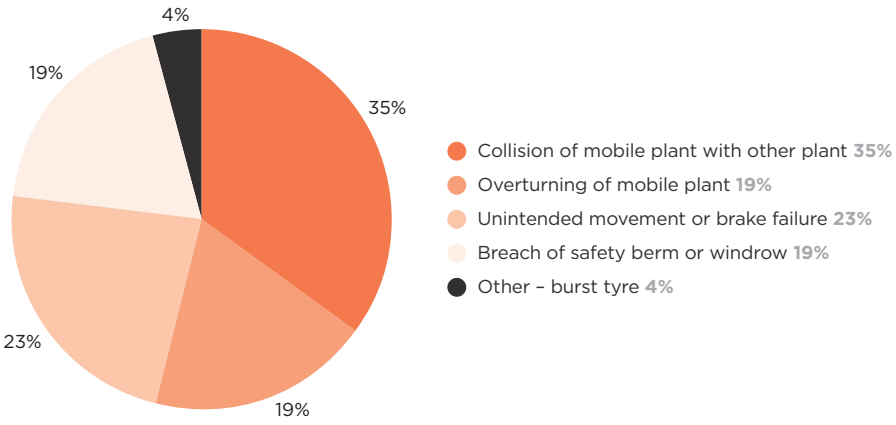

FIGURE 10: Vehicles and plant-related notifiable event sub-categories

Consistency of reporting

Mining and tunneling data are received from a high proportion of those operations and are considered to be accurate. Notifiable events were reported by 45% of operations in the past 12 months, and quarterly reports were submitted by 92% of operations this quarter.

Quarrying and alluvial mining data are received from a much lower proportion of those operations and are likely to be less accurate. Notifiable events were reported by just 3% of operations in the past 12 months. The SWIFT data on WAFW injuries consistently shows higher numbers of injuries in the quarry sector, suggesting under-reporting of events. More accurate reporting from the quarry sector is expected when the requirements for reporting under Schedules 5 and 8 are implemented for quarries.

2.5 Regulator comments

I believe the previous cycle of quarterly reports has confirmed that our industry has too many HPIs or near misses and that there is no apparent improvement trend in the numbers.

During the next cycle of quarterly reports we will share the outcomes of investigations into a selection of the HPIs with industry.

It is anticipated that much of the information will come from the investigations completed by the operator, which may be supplemented by WorkSafe inspector observations. The sharing of investigation findings can then benefit all of industry.

When considering the nature of the quarterly HPIs and the investigation findings, I would recommend that operators consider the concept of High Reliability Organisations (HROs). While not advocating that industry should immediately move to a HRO model, I believe that some of the principles are simple and could be beneficial to our industry.

In general there are five characteristics that contribute to the culture of a HRO:

1. **preoccupation with failures rather than success**
2. reluctance to simplify
3. sensitivity to operations
4. **commitment to resilience**
5. deference to expertise.

The two highlighted principals (1 and 4) in particular are useful to think about for our industry.

Focusing on understanding what failures might occur on your sites, and when incidents have occurred, then determining why by investigation.

And the commitment to resilience is about ensuring if there is a failure, then the consequences do not disrupt the business or cause serious consequences. So if the steering fails on a truck there are run offs or windrows in critical areas (above high walls, ponds etc).

This is not a proposal to change what we do regards risk assessment or planning, but to remind operators of the obvious – that any negative incident is unplanned and something or most likely several things have gone wrong – failed.

Sufficiently resourcing investigations and ensuring that they are honest and accepting of admitting mistakes or responsibility is key to learning what to improve to significantly reduce the probability of another event.

And when thinking about what might have gone wrong or that you think might go wrong, put thought into how to limit the consequence of that failure.

In this quarterly report we discuss one of the HPI's that occurred. This will be a regular inclusion in the report. The organisations involved investigated the incident in an open manner and identified a series of failings. Could these failings have occurred at your operations? And if so what can you improve?

2.6 High potential incidents

A high potential incident at a mine, quarry or tunnel is an event, or a series of events, that causes or has the potential to cause a significant adverse effect on the safety or health of a person.

High potential incidents – 2020/21 Q1

Table 4 provides a summary of high potential incidents notified to WorkSafe in Q1 2020/21. The summaries are an abridged version from the operator's notification report.

INCIDENT DATE	SUMMARY	CONSIDERATIONS
Jul 20	During routine inspection workers uncovered a collapse of small section of conveyor tunnel, where work was planned.	– Ground and strata – Workplace inspection – Design
Jul 20	Underground truck fire. Caused by failure in crankshaft and subsequent sparking. Truck blocked decline.	– Fire or explosion – Maintenance – Emergency
Jul 20	Worker slipped on wet grass while tidying up and hit head on rock. Worker unconscious and bleeding from ear (LTI).	– Risk assessment – Job planning
Jul 20	Lacerated finger on right hand. Assembling conveyor structure – worker hit hand, resulting in laceration requiring medical attention (LTI).	– Job planning – Risk assessment – Job planning
Jul 20	ADT breached windrow on stockpile.	– Roads and operating surfaces – Traffic management plan – Training
Aug 20	Winch went into free spool. Tunnel crew retrieving TBM services in a demobilisation activity using winch truck. Several pulls had been completed when control was lost of the winch which free spooled back, completely unwinding off the winch drum.	– Job planning – Risk assessment – Equipment selection and maintenance – Training – Change management
Aug 20	Worker hit in head by crusher hammer. Using digger, workers were swinging new hammer which struck a worker, catching head between digger and hammer. Airlifted to hospital.	– Job planning – Risk assessment – Equipment selection – Training
Aug 20	Operator of ute drove up bank and rolled ute onto its side when attempting to turn around.	– Training
Aug 20	Telehandler fire. Operator driving telehandler up decline noticed overheat alarm. On inspection found small fire under bonnet, extinguished with fire extinguisher	– Fire or explosion – Maintenance – Emergency
Aug 20	Truck fire. Flames noticed on underground truck while washing down at end of shift on surface.	– Fire or explosion – Maintenance – Emergency

INCIDENT DATE	SUMMARY	CONSIDERATIONS
Aug 20	11kV cable strike at tunnel site. During surface construction work a brace pin was driven into ground and it pierced an underground 11kV cable.	– Job planning – Risk assessment – Training
Aug 20	Fire on light vehicle. LV parked up underground and operator noticed fire. Activated fire suppression.	– Fire or explosion – Maintenance – Emergency
Sep 20	Quarry worker burned by flashback after starting fire using diesel and rubbish. Helicoptered out. Second and potential first degree burns.	– Job planning – Risk assessment – Equipment selection and maintenance – Training
Sep 20	Stuck foot brake. Operator's drink bottle jammed under brake pedal and operator steered into drain to stop.	– Roads and operating surfaces – Traffic management plan – Training
Sep 20	Unintentional fall of plant. Whilst lowering screen deck onto crusher the unit has fallen to ground. Made contact with worker's hand – bruising and superficial grazing sustained.	– Job planning – Risk assessment – Training
Sep 20	Loader hit another loader. Whilst loader was backing down ramp after feeding hopper it backed into another loader backing out of stockpile.	– Risk assessment – Roads and operating surfaces – Traffic management plan – Training
Sep 20	ADT deck roll over. Whilst Hitachi ADT was unloading at stockpile the wheels travelled up uneven ground and this, combined with shift of aggregate load in tray, caused tip over of tray.	– Risk assessment – Roads and operating surfaces – Traffic management plan – Training
Sep 20	Loader clipped stacker belt. While cleaning up material under stacker belt with loader, the loader contacted the metal supporting beam of stacker belt.	– Risk assessment – Job planning – Traffic management plan – Training
Sep 20	Worker fell from height at a quarry site. While contractor was replacing existing walkway on process facility, the existing walkway gave way and worker fell from height. Worker sustained serious injuries.	– Risk assessment – Job planning – Contractor management – Training
Sep 20	Truck roll over. Operator lost control of truck whilst travelling downhill, causing tray to turn over.	– Roads and operating surfaces – Traffic management plan – Training

TABLE 4: High potential incidents – 2020/21 Q1

Table 5 and figure 11 shows the number of high potential incidents per quarter during the last year for all extractives operations.

QUARTER	Q1 JUL-SEP 2019	Q2 OCT-DEC 2019	Q3 JAN-MAR 2020	Q4 APR-JUN 2020	Q1 JULY-SEP 2020	TOTAL PREVIOUS 12 MONTHS
Number of high potential incidents	19	28	34	15	20	96

TABLE 5: High potential incidents

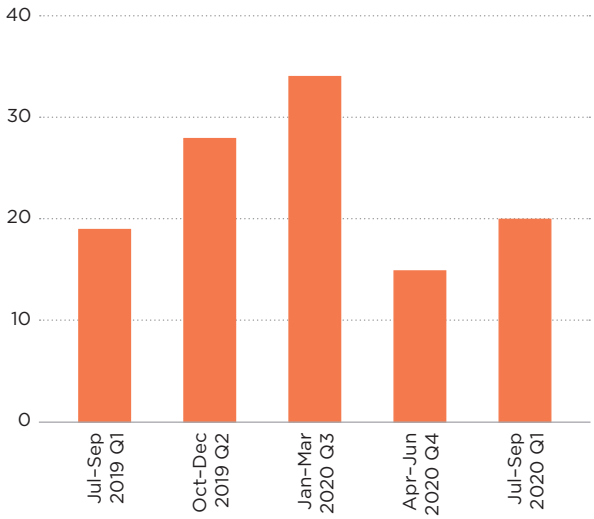

FIGURE 11: High potential incidents per quarter

2.7 High potential incidents – investigation outcomes

INCIDENT DATE	SUMMARY	CONSIDERATIONS
Sep 20	Worker fell from height at a quarry site. While contractor was replacing existing walkway on process facility, the existing walkway gave way and worker fell from height. Worker sustained serious injuries.	– Risk assessment – Job planning – Contractor management – Training

TABLE 6: High potential incidents – 2020/21 Q1

FIGURE 12: Collapsed walkway

The incident

While undertaking a walkway improvement project, workers were required to remove an elevated walkway fixed to the side of an aggregate screen. The workers were engineering contactors tasked with lowering the platform to the ground and fitting width extensions to the walkway. The job required crane lifts, working at heights, and hot works.

Prior to commencing the work a group of workers from contractors and the operator developed a JSEA (Job Safety Environmental Analysis).

During the removal of a section of walkway a worker fell 4m to the ground when the section of walkway gave way beneath him. He sustained serious injuries that may have long term effects.

The investigation identified that workers had decided to remove some of the bolts from the section while still working on the structure. They assumed that there would be sufficient residual structural integrity to continue working on the walkway. In fact the structure was unstable and when the worker cut a handrail the section of walkway failed, resulting in the worker falling. A crane was being used to hold the structure in place during dismantling.

During the planning of the work, time pressure and change management considerations arising from unavailable plant were identified as being an influence on decision making.

The investigation identified

The JSEA was inadequate. The JSEA only listed one task, that is, remove walkway. The actual work involved multiple key steps. The controls listed in the JSEA did not include the critical controls for preventing falling objects or workers working at heights. When to use the Elevated Work Platform (EWP) was not described. The JSEA did not mention the use of the crane, which was involved and working in the vicinity. While the JSEA had been signed off by senior quarry personnel, they did not challenge the lack of detail in the document. The sign off of a poor quality JSEA is a failing of approval processes, supervision and training.

Several incorrect assumptions contributed to the inadequate JSEA.

The operator assumed the contractor would complete a full step by step JSEA and that it would be communicated to workers. The operator failed to exercise adequate oversight.

The JSEA was silent on the detailed dismantling process. It assumed that ‘leaving bolts in place was standard practice’, but in fact this was not understood by all workers. The operator and contractor failed to have adequate review and approval processes in place for work plans.

The crane was intended to hold and then lower the complete structure. It was assumed it would stay connected – there is no evidence that the integrity of the structure and what bolts were critical to the integrity of the structure was considered in the discussion to complete the JSEA. Therefore a safe sequence of dismantling was not adequately determined. This is a significant failing of the planning and review of plans by competent persons.

The job planning also failed in that the dismantling process could have been completed without any worker being required to stand on the walkways by using a EWP; one was available on the job. The options for dismantling were not adequately considered. The use of a EWP would have been a higher hierarchy control for the hazards associated with this work. The operator and contractor failed to exercise adequate oversight of the plan.

Recommendations

- Operators should ensure that all work should be adequately risk assessed and sufficiently detailed JSEA are provided to workers to undertake work safely. Those that undertake risk assessments should be suitably trained in the process.
- There should be a suitably competent person to approve the actual implementation of JSEA for any safety critical work.
- Any structure should be considered unstable after removal of any bolt or brace unless the integrity is confirmed by a suitably qualified person.

The regulator

IN THIS SECTION:

3.1 Our activities

The Extractives Specialist Health and Safety Inspectors at WorkSafe use a range of interventions to undertake their duties. Inspectors strive to achieve the right mix of education, engagement and where required enforcement. This section of the report includes a summary of the interventions used by the Extractives Inspectors during the quarter.

3.2 Assessments

Proactive assessments aim to prevent incidents, injuries and illness through planned, risk-based interventions. Reactive activities are undertaken in response to reported safety concerns or notifiable events. Assessments can be either site- or desk-based in nature.

For proactive site-based assessments, the objectives of each visit are agreed and the appropriate inspection tool is selected. Targeted assessments and regulatory compliance assessments can take several days on site with a team of inspectors attending. These multi-day inspections may be 'targeted' to assess the controls in place for a particular principal hazard (for example, WorkSafe has been targeting 'Roads and other vehicle operating areas' as a result of the high number of notifiable events in this area), or they may involve a more general assessment of 'regulatory compliance'. Site inspections and targeted inspections are generally completed in a one day site visit but can also focus on specific topics.

As well as site-based assessments, the Inspectors spend considerable time undertaking desk-based assessments. Proactive desk-based assessments include the review of Principal Hazard Management Plans (PHMPs), Principal Control Plans (PCPs), mine plans, and high risk activity notifications. Responding to notifiable events and safety concerns may involve a site-based or desk-based assessment, or both.

Table 7 shows the range of assessments undertaken in Q1 2020/21 by sector.

		ASSESSMENTS	MINE	TUNNEL	ALLUVIAL MINE	QUARRY
Preventative	Site-based	Targeted assessments	1			
		Regulatory compliance assessments				
		Site inspections	12	4	13	39
		Targeted inspections	1			
	Desk-based	PHMP/PCP review		36		
		Mine plan review	16	13		
		High risk activity				
		COVID-19 assessment				
Reactive	Site-based	Concerns – inspection			1	
		Notifiable events – inspection	2			
	Desk-based	Concerns – desk-based	1			3
		Notifiable event – desk-based	11		1	8

TABLE 7: Proactive and reactive site and desk based assessments conducted in Q1 2020/21

Figure 13 shows the number of proactive and reactive site- and desk-based assessments undertaken by the regulator in Q1 2020/21. This quarter 45% of our activities were site-based, and 83% of activities were proactive.

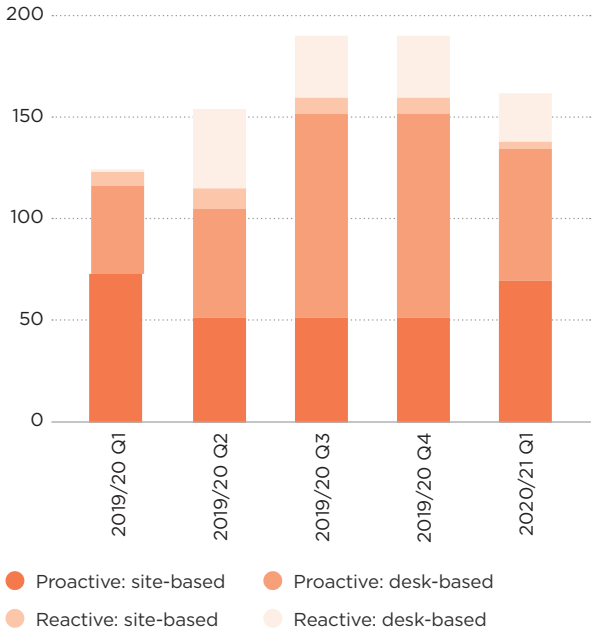

FIGURE 13:
Proactive and reactive site and desk-based assessments

Figure 14 shows the number of assessments undertaken by the regulator in Q1 2020/21 by sector. This quarter, 31% of our assessments were for quarries, 33% for tunnels, 27% for mines and 9% for alluvial mines.

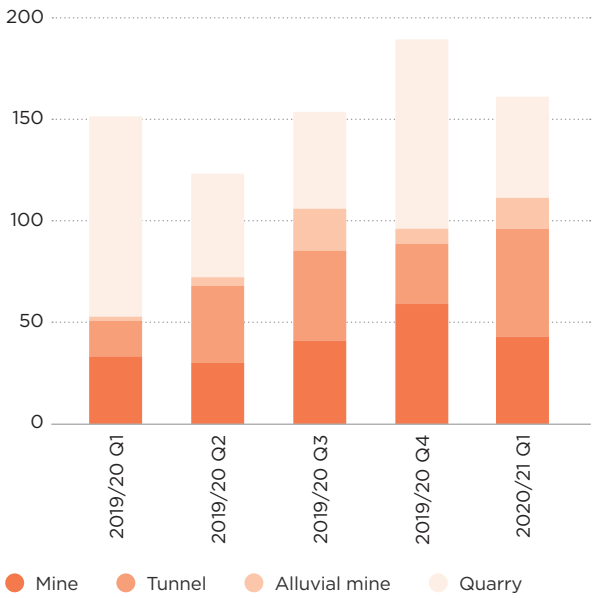

FIGURE 14:
Assessements by sector

3.3 Enforcements

Enforcement actions issued by WorkSafe include prohibition and improvement notices and directive letters. Enforcement actions are issued according to our Enforcement Decision Making (EDM) Model when health and safety issues are identified through assessments.

Figures 15 and 16 show the number of enforcement actions issued in Q1 2020/21 by notice type and by sector. This quarter, a total of 173 enforcement actions were issued. Of those, 9% of were prohibition notices, 15% were improvement notices, and 76% were directive letters. The majority of the enforcement actions were issued to the mining (34%) and quarrying (42%) sectors.

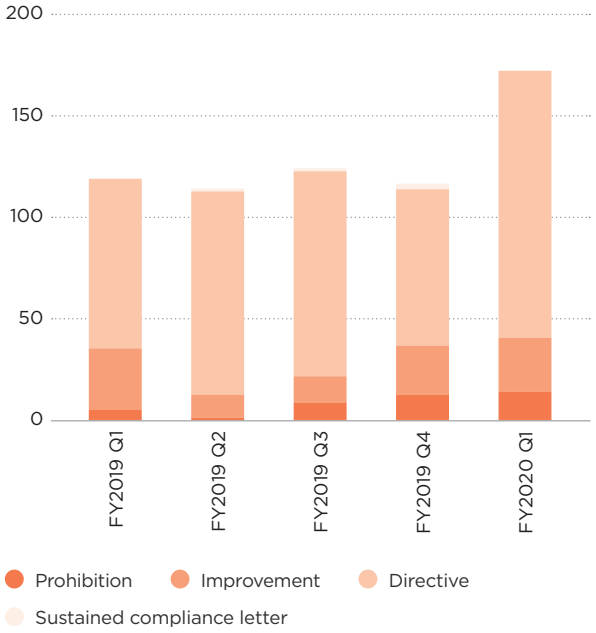

FIGURE 15: Enforcement actions issued by type

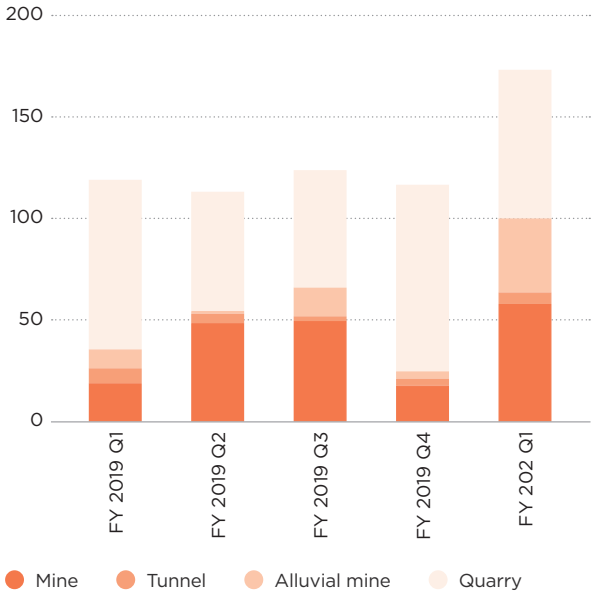

FIGURE 16: Enforcement actions issued by sector

Figure 17 shows the number of enforcement actions issued in Q1 2020/21 by category, and provides an indication of the key areas of concern to our inspectors. This quarter, the majority of enforcement actions were issued for health and safety issues relating to roads and other vehicle operating areas (19%).

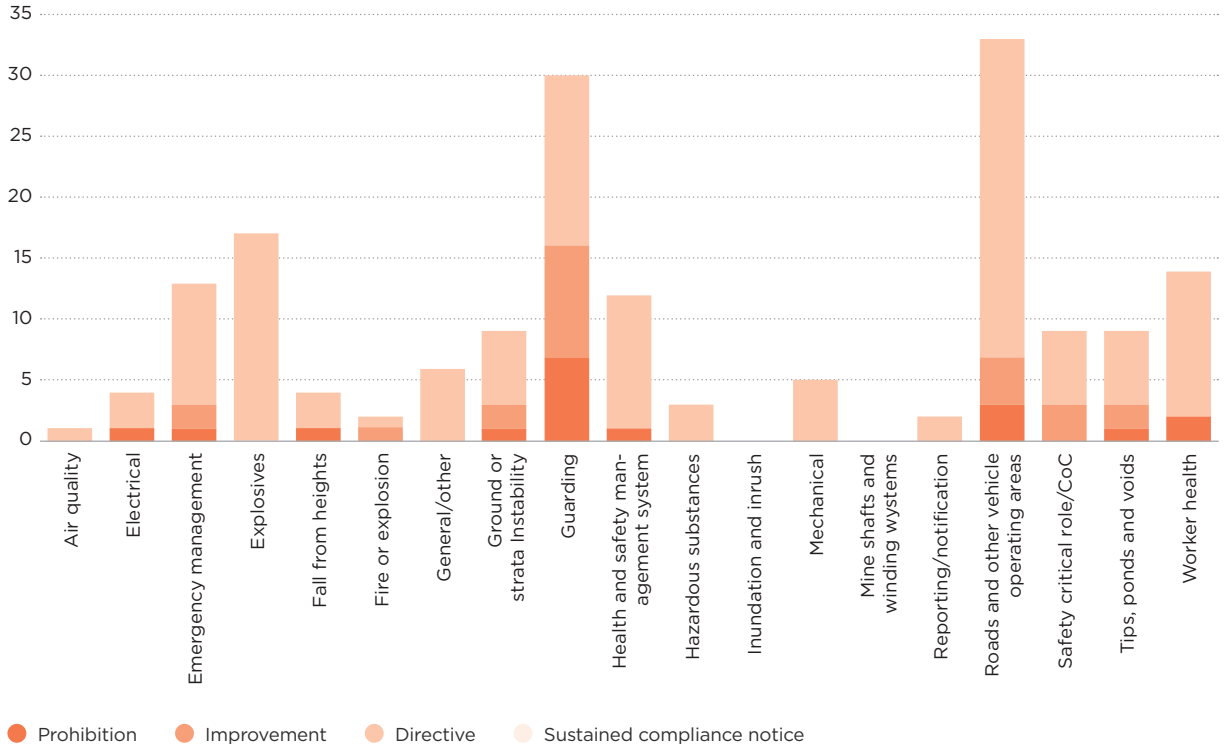

FIGURE 17: Enforcement actions issued by category 2020/21 Q1

Regulator activity comment

Following the reduction in site based inspector activity during COVID the 2020/2021 Q1 period shows an increase in site based inspection activity and a proportional increase in enforcement actions.

While the Roads and Other Vehicle Operating Surfaces category remains the highest, and guarding remains second highest there is an increase in enforcement actions issued in the Explosives, Emergency and Worker Health areas.

The increase in the enforcement actions for explosives has been a result of the number of incidents and subsequent targeted assessments undertaken by inspectors at large sites, so to some extent WorkSafe has been reactive to incidents.

Whereas the increase in enforcement around worker health and emergency has been through a conscious proactive focus by inspectors. WorkSafe is shifting its focus to the worker health issues, and for our industry much of that focus will be on dust related hazards and the control of them. This focus will continue to increase, and inspectors will be inspecting sites to ensure that operators have good dust control systems in place.

Many of the emergency enforcement actions were related to basic worker protection such as provision of emergency stops on processing equipment or other plant. So these notices might be considered to be as much about fit for purpose equipment as about emergency provisions.

The proportion of enforcement actions has continued to reflect a good mix of prohibition, improvement and directives.

Disclaimer

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