

**ANALYSIS OF BIENNIAL DATA FROM
ACCREDITED CONTRACTORS FOR THE
JULY TO DECEMBER 2009
REPORTING PERIOD**

Australian Government Building and Construction
OHS Accreditation Scheme

May 2010



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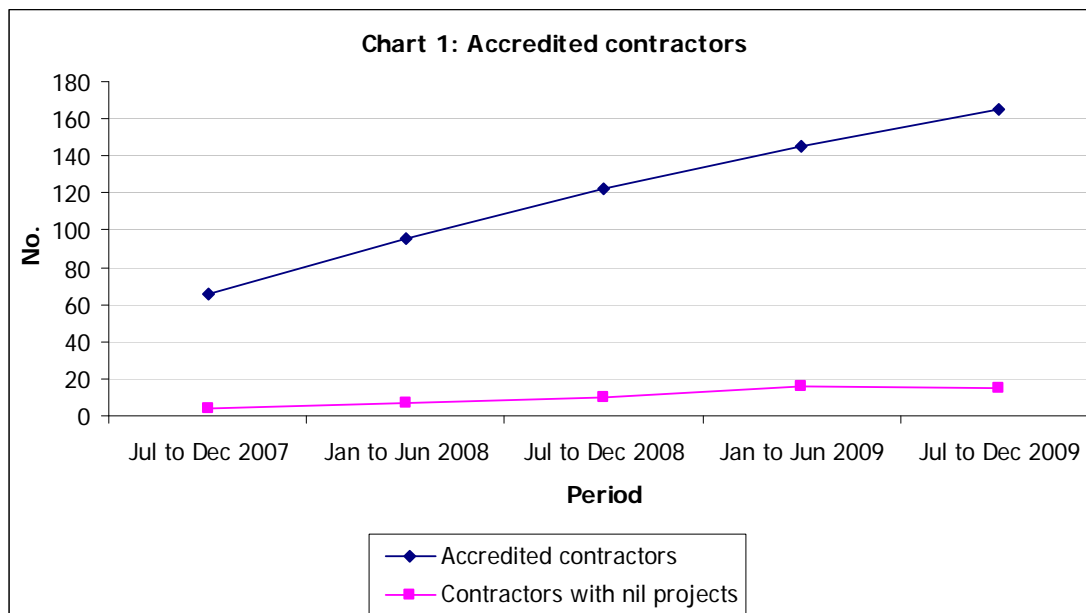
This report provides an overview and analysis of data collected from accredited companies under the Australian Government Building and Construction OHS Accreditation Scheme (the Scheme) for the period July to December 2009. Comparisons are also made with data collected in previous biannual periods where appropriate.

1 ANALYSIS

Prior to the introduction of biannual reporting in the December 2007 reporting period, data was not split by type of project (Scheme / non-Scheme). As a consequence, direct comparisons between biannual data and annual data are not practicable.

Where possible comparisons with industry wide data are provided, however, the availability of this data is limited and is often not available until much later than the data reported by the Office of the Federal Safety Commissioner (OFSC).

1.1 Contractors accredited



- Between the December 2008 and December 2009 reporting periods there was a 35 per cent increase in the number of accredited contractors providing biannual data, with 122 accredited contractors reporting in the December 2008 period and 165 reporting in the December 2009 period¹.
- Of the 165 accredited contractors reporting in the December 2009 period, 15 reported nil projects compared to 10 in the December 2008 period.

1.2 Number of projects

¹ For the July to December 2009 biannual reporting period there were 177 accredited contractors of which 165 submitted biannual activity reports. In all other biannual periods, all accredited contractors submitted their biannual activity reports.



Period	Scheme projects		Non-Scheme projects	
	Accredited contractors No.	Projects No.	Accredited contractors No.	Projects No.
Jul to Dec 2007	25	42	58	1,019
Jan to Jun 2008	32	71	85	1,212
Jul to Dec 2008	44	103	107	1,416
Jan to Jun 2009	61	128	124	1,730
Jul to Dec 2009	75	183	144	2,166

- Between the December 2008 and December 2009 reporting periods the number of Scheme projects increased 78 per cent, while the number of accredited contractors undertaking these projects increased 70 per cent.
- Over the same time, the number of non-Scheme projects increased 53 per cent, while the number of accredited contractors undertaking these projects increased 35 per cent.

1.3 Number employed / Hours worked

From mid 2009, accredited contractors were asked to report head contractor employees [overall] and the number of hours worked on both Scheme projects and non-Scheme projects valued at \$3 million or more.

In previous periods, accredited contractors reported the number of head contractor employees and sub-contractors for both Scheme and non-Scheme projects. Collection of this data by accredited companies was problematic and was discontinued in favour of the collection of hours worked data to provide more consistently accurate Lost Time Injury Frequency Rate (LTIFR) and Medically Treated Injury Frequency Rate (MTIFR) estimates. Hours worked data also had the additional benefit of providing a better indication of the size and level of activity on projects.

Total hours reported covers projects valued at \$3 million or more and therefore does not provide a comprehensive picture of accredited company activity.

Period	Scheme projects (million hours)	Non-Scheme projects valued at \$3 million or more (million hours)	All projects (million hours)
Jul to Dec 2009	14.57	93.31	107.88

1.4 Fatalities

In line with the change to record hours worked rather than employees, the fatalities figures have been adjusted to show the fatalities frequency rate instead of the incident rate.



Period	Scheme projects		Non-Scheme projects		All projects		Construction industry data ²	
	Fatalities No.	Fatalities incidence rate	Fatalities No.	Fatalities frequency rate	Fatalities No.	Fatalities frequency rate	Fatalities No.	Fatalities ³ frequency rate
Jul to Dec 2007	1	NA	0 (1 ⁴)	NA	1 (1 ⁴)	NA	20	2.30
Jan to Jun 2008	0	NA	6	NA	6	NA	15	1.64
Jul to Dec 2008	0	NA	4 (2 ⁴)	NA	4 (2 ⁴)	NA	19	2.11
Jan to Jun 2009	1	NA	4 (2 ⁴)	NA	5 (2 ⁴)	NA	12	1.34
Jul to Dec 2009	0	0.00	1(2 ⁴)	1.07	1(2 ⁴)	0.93	11	1.24

- It should be noted that the incident rates for accredited companies are significantly inflated as hours for projects less than \$3 million are not included even though all fatalities for these companies are included. Even with this overstatement, frequency rates for accredited companies for the December 2009 period were well below the frequency rate for the construction industry overall.
- There were no Scheme project fatalities and one non-Scheme project fatality (excluding heart attack victims) in the latest biannual reporting period.
- Non-Scheme project fatalities (excluding heart attack victims) decreased by 75 per cent between the December 2008 and December 2009 reporting periods.

1.5 Injury frequency rates

1.5.1 Lost Time Injury Frequency Rate (LTIFR)

LTIFR						
Period	Scheme projects			Non-Scheme projects		
	Median	Arithmetic mean	Winsorized mean	Median	Arithmetic mean	Winsorized mean
Jul to Dec 2007	0.00	6.94	4.04	4.65	10.06	7.52
Jan to Jun 2008	0.00	9.24	8.72	4.95	10.41	9.05
Jul to Dec 2008	0.00	7.44	6.21	4.65	12.22	7.36
Jan to Jun 2009	0.00	12.86	10.35	3.50	11.54	6.10
Jul to Dec 2009	0.00	9.36	7.68	2.51	11.58	8.23

- While the mean LTIFR for Scheme projects is an improvement on the previous period, it has increased compared with the corresponding period for the previous year. Mean LTIFR for non-Scheme data remain stable.

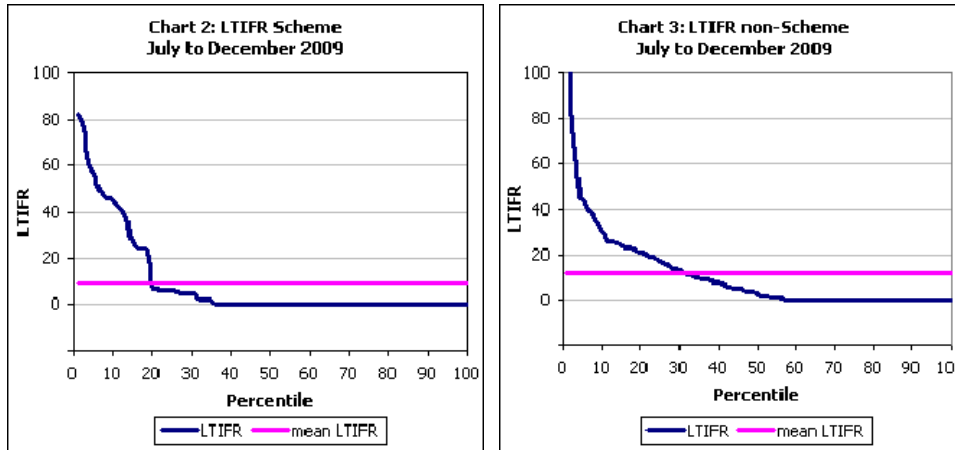
² Excludes fatalities due to heart attack. *Source:* Safe Work Australia industry of workplace fatalities data extracted from their published Notified Fatalities Reports. See Footnote 5 for details on the denominator for the calculation of the fatalities incidence rate.

³ Calculated based on average hours worked from ABS figures provided in the 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly report. Rate is per 100 million hours worked based on 24 weeks in the period (Christmas shutdown excluded).

⁴ Fatalities due to heart attack or other natural causes.



- The median LTIFR for Scheme projects has remained at zero for all biannual reporting periods, while the median LTIFR for non-Scheme projects decreased in the December 2009 period to an all-time low of 2.51.
- As both Scheme and non-Scheme projects have a few very high LTIFR values, the Winsorized mean (see Glossary) was also calculated as it is regarded as a more robust estimator of the central tendency because it is less sensitive to outliers.



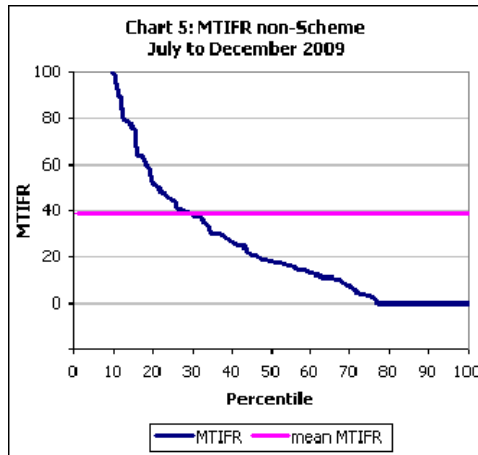
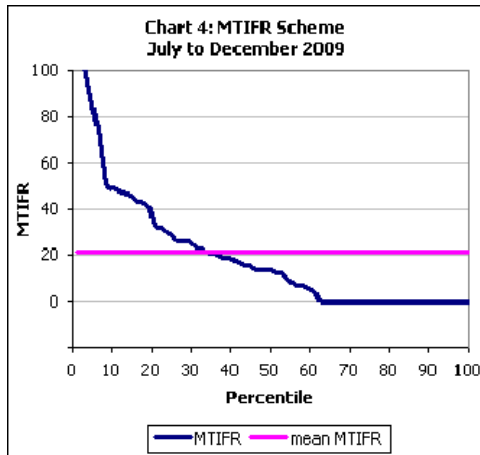
- For the December 2009 period, around 65 per cent of all accredited contractors undertaking Scheme projects reported no LTI's, while around 81 per cent were below the mean LTIFR for Scheme projects (Chart 2).
- For the same period, around 44 per cent of all accredited contractors undertaking non-Scheme projects reported no LTI's, while around 69 per cent were below the mean LTIFR for non-Scheme projects (Chart 3).

1.5.2 Medically Treated Injury Frequency Rate (MTIFR)

Period	MTIFR					
	Scheme projects			Non-Scheme projects		
	Median	Arithmetic mean	Winsorized mean	Median	Arithmetic mean	Winsorized mean
Jul to Dec 2007	0.00	12.06	9.53	19.90	26.23	23.32
Jan to Jun 2008	0.00	18.06	16.29	19.00	29.39	24.36
Jul to Dec 2008	2.78	21.79	14.50	13.18	21.10	16.67
Jan to Jun 2009	8.58	33.93	22.78	14.32	26.82	17.21
Jul to Dec 2009	13.04	21.84	16.62	18.02	38.61	28.77

- Between the December 2008 and December 2009 reporting periods, Scheme median MTIFR increased significantly however the mean has remained relatively constant.
- Both Scheme and non-Scheme projects had extreme MTIFR values which had an impact on all MTIFR averages.





- For the December 2009 period, around 39 per cent of all accredited contractors undertaking Scheme projects reported no MTI's, while around 67 per cent were below the mean MTIFR for Scheme projects (Chart 4).
- For the same period, around 24 per cent of all accredited contractors undertaking non-Scheme projects reported no MTI's, while around 72 per cent were below the mean MTIFR for non-Scheme projects (Chart 5).

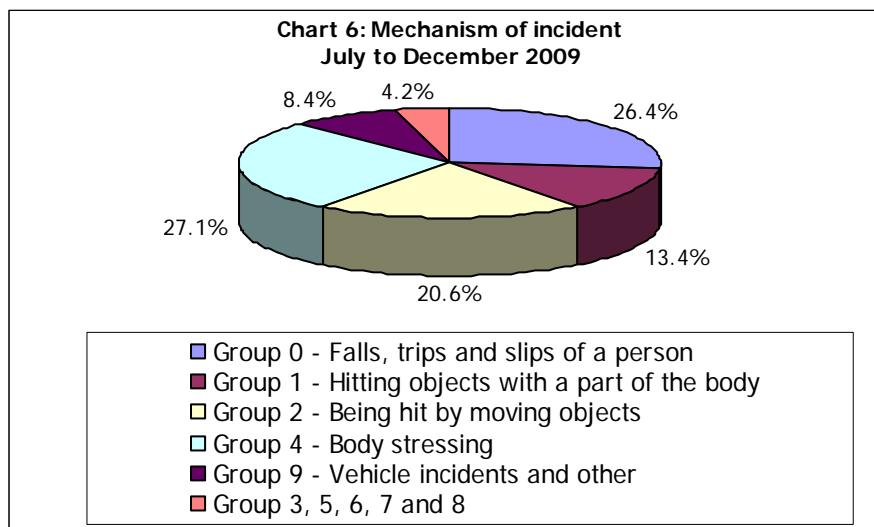


1.6 Profile of injuries

Accredited contractors are required to report lost time incidents based on the mechanism of incident classification groups contained in the *Type of Occurrence Classification System, Version 3.1* (TOOCS3.1) published by Safe Work Australia.

The *mechanism of incident* classification is intended to identify the overall action, exposure or event that best describes the circumstances that resulted in the most serious injury or disease. Accredited contractors report at the major group classification level (see Glossary).

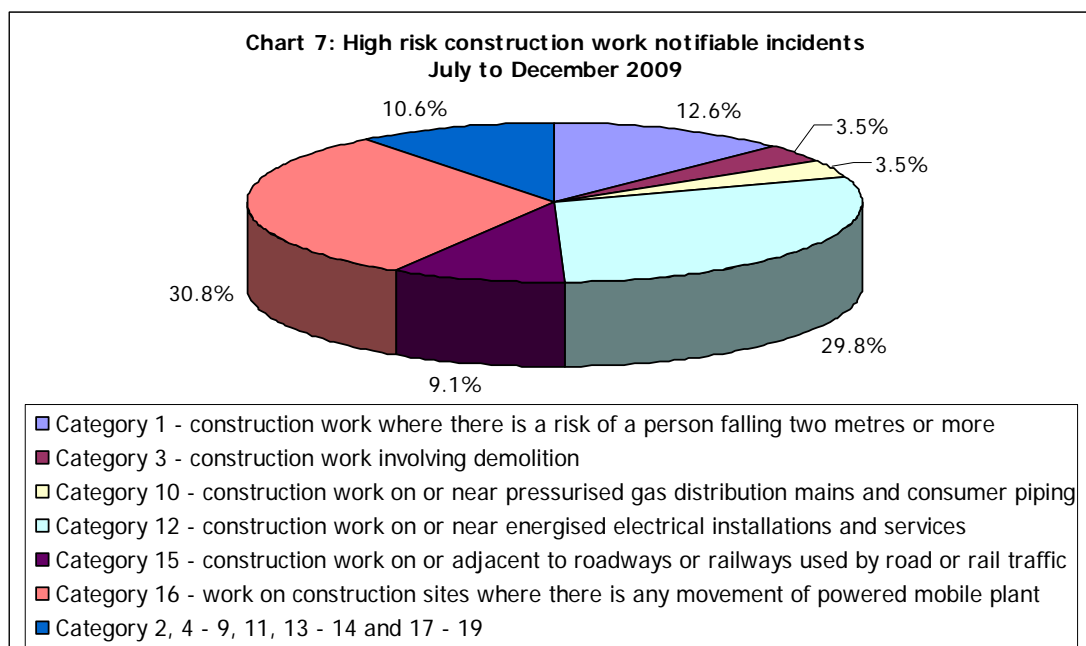
- For the December 2009 reporting period, 621 incidents were reported by 88 accredited contractors compared to 800 incidents by 86 accredited contractors in the December 2008 reporting period, a decrease of 22 per cent in the number of incidents.
- The top five mechanism of incident groups accounted for 95.8 per cent of all incidents for the December 2009 reporting period compared to 95.6 per cent for the December 2008 reporting period.
- Group 2 – Being hit by moving objects had the largest variation with an increase of 5.2 percentage points compared to the December 2008 period.



1.7 High-risk construction work

Accredited contractors are required to report if they performed any 'high-risk construction work' as described in the *National Standard For Construction Work* [NOHSC:1016 (2005)] published by Safe Work Australia and indicate whether any such work resulted in an injury or near miss event that required the accredited contractor to notify the relevant OHS authority (under the OHS legislation covering notifiable incidents) in the jurisdiction in which the project was undertaken.

The objective of this national standard is to protect persons from the hazards associated with construction work. It assigns responsibilities to individuals to identify these hazards and either eliminate them, or where this is not reasonably practicable, minimise the risks they pose. There are 19 hazards that have been identified as high-risk construction work (see Glossary).



- There were 198 notifiable incidents reported by 38 accredited contractors to the relevant jurisdiction OHS authority for the December 2009 reporting period, compared to 167 notifiable incidents by 45 accredited contractors in the December 2008 period. It should be noted that with the number of accredited contractors reporting increasing from 122 in the December 2008 period to 165 in the December 2009 period the number of notifiable incidents has actually fallen in relative terms.
- The top three notifiable incidents accounted for 73.2 per cent of all incidents for the December 2009 period compared to 76 per cent in the December 2008 period.
- Work on construction sites where there is any movement of powered mobile plant was the most common incident (30.8 per cent) an increase of 3.9 percentage points compared to December 2008; followed by construction work on or near energised electrical installations and services (29.8 per cent) a decrease of 2.5 percentage points compared to December 2008.

1.8 Workers compensation premium rates

Mean premium rate %								
Period	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Jul to Dec 2007	5.589	3.764	2.675	1.211	2.940	.	2.285	2.496
Jan to Jun 2008	4.962	3.418	2.355	1.567	3.037	.	2.157	3.348
Jul to Dec 2008	4.274	3.103	2.261	1.695	3.750	1.087	2.213	2.066
Jan to Jun 2009	3.742	2.787	1.973	1.232	3.832	1.155	2.255	2.342
Jul to Dec 2009	3.849	3.342	2.376	1.424	3.695	1.302	2.177	2.002
House construction June 2009 ⁵	NA	5.169	NA	2.333	3.3	3.52	1.945	1.17
Non-residential construction June 2009 ⁸	NA	4.028	NA	2.333	3.4	3.52	2.651	2.32

- Between the December 2008 and the December 2009 reporting periods, the mean premium rates for accredited contractors increased for New South Wales, Northern Territory and Tasmania; and decreased for the Australian Capital Territory, Queensland, South Australia, Victoria and Western Australia.
- For comparative purposes, the latest available premium rates for house construction and non-residential construction across most jurisdictions have been included. At 30 June 2009, the mean premium rates for accredited contractors were below those for the non-residential construction industry, except South Australia and Western Australia; and also below those for house construction except South Australia, Victoria and Western Australia.

⁵ Source: Safe Work Australia publication Comparison of Workers' Compensation Arrangements in Australia and New Zealand February 2010, Table 4.4 Selected Industry Premium Rates as at 30 June 2009, page 67.



1.9 Positive performance indicators

Positive performance indicators (PPIs) are measures of actions or initiatives introduced to prevent workplace injury and disease. Accredited contractors report details of PPIs, as well as details of any peer or industry recognition for OHS performance, and details of any key OHS initiatives implemented during the reporting period.

Examples of these indicators, recognition and initiatives for the June 2009 reporting period are provided below. It is important to note that information on PPIs is provided as free text so the response percentage is likely to understate the number of contractors that implement these PPIs.

Positive performance indicators	Frequency of response
Audit programs conducted	50%
Toolbox meetings	22%
Government / Building Association Awards	8%
OHS training to a Certificate III or better by employees	8%
Emergency Drills / Evacuation Plans	2%
Implementation of drug and alcohol programs	1%

- Results for the December 2009 period were similar to the last biannual period for most PPIs. Toolbox meetings dropped 8 percentage points and OHS training to Certificate III or better by employees increased 4 percentage points.



GLOSSARY

Median - The median is the middle of a distribution; half the scores are above the median and half are below the median. If the number of values in the data set is even, then the median is the average of the two middle values. The median is less sensitive to extreme scores than the average.

Arithmetic mean - The mean is the sum of all the scores divided by the number of scores.

Winsorized mean - involves the calculation of the mean after replacing given parts of a distribution at the high and low end with the most extreme remaining values, typically replacing an equal amount of both ends. Often 5 per cent of the ends are replaced. The Winsorized mean is a useful estimator because it is less sensitive to outliers than the mean but will still give a reasonable estimate of central tendency.

Incidence rate - Incidence rates are calculated as follows:

$$\frac{\text{Number of incidences}}{\text{Number employed}} \times 100,000 \text{ (employees)}$$

Frequency rate - Frequency rates are calculated as follows:

$$\frac{\text{Number of incidences}}{\text{Number of hours worked}} \times 1,000,000 \text{ (hours)}$$

LTIFR (Lost Time Injury Frequency Rate) - The number of occurrences of lost time injury that result in a fatality, a permanent disability or time lost from work of one day shift or more in the period. The number of hours worked refers to the total number of hours worked by all workers in the period, including overtime and extra shifts.

MTIFR (Medically Treated Injury Frequency Rate) - The number of occurrences of 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. The number of hours worked refers to the total number of hours worked by all workers in the period, including overtime and extra shifts.

Incident - An incident resulting in an injury that is required to be notified by the OHS legislative requirement for notifiable incidents in the jurisdiction in which the project is being undertaken.

Scheme projects - Projects that are directly funded by the Australian Government with a value of \$3 million or more, plus, projects that are indirectly funded by the Australian Government where:

- the value of the Australian Government contribution to the project is at least \$5 million and represents at least 50 per cent of the total construction project value; or
- the Australian Government contribution to a project is \$10 million or more, irrespective of the proportion of Australian Government funding.



Non-Scheme projects – Projects where the accredited contractor is the head contractor, the value of building work is \$3 million or more, and the project is not a Scheme project.

Mechanism of incident classification –

Major Groups

0. Falls, trips and slips of a person
1. Hitting objects with a part of the body
2. Being hit by moving objects
3. Sound and pressure
4. Body stressing
5. Heat, electricity and other environmental factors
6. Chemicals and other substances
7. Biological factors
8. Mental stress
9. Vehicle incidents and other

High risk construction work hazards –

1. Construction work where there is a risk of a person falling two metres or more
2. Construction work on telecommunications towers
3. Construction work involving demolition
4. Construction work involving the disturbance or removal of asbestos
5. Construction work involving structural alterations that require temporary support to prevent collapse
6. Construction work involving a confined space
7. Construction work involving excavation to a depth greater than 1.5 metres
8. The construction of tunnels
9. Construction work involving the use of explosives
10. Construction work on or near pressurised gas distribution mains and consumer piping
11. Construction work on or near chemical, fuel or refrigerant lines
12. Construction work on or near energised electrical installations and services
13. Construction work in an area that may have a contaminated or flammable atmosphere
14. Tilt-up and precast concrete construction work
15. Construction work on or adjacent to roadways or railways used by road or rail traffic
16. Work on construction sites where there is any movement of powered mobile plant
17. Construction work in an area where there are artificial extremes of temperature
18. Construction work in, over or adjacent to water or other liquids where there is a risk of drowning
19. Construction work involving diving

