

UK Offshore wind health and safety statistics

2016 report



G+ Global Offshore Wind
Health & Safety
Organisation

www.gplusoffshorewind.com

About the G+ Global offshore wind health and safety organisation

The primary aim of the G+ is to deliver world class health and safety performance in the offshore wind industry. To achieve this, senior executives of G+ member companies have committed resources from their companies, and meet regularly under the auspices of the G+ Board. Their goal is to actively lead the industry in finding solutions to safety challenges faced by offshore wind projects throughout their lifecycle, from design to development through construction and in operation.

Through the sharing and analysis of health and safety incidents provided by G+ member companies, an evidence-based understanding has been developed of the risks encountered during the development, construction and operational phases of a wind farm project. This information is being used by the G+ to identify risks in the offshore wind industry, allowing the group's work to be focussed in areas of higher risk exposure.

This report contains data from the UK sites of G+ members, and additional data from non-G+ members who are either developing, constructing or operating offshore wind farms in the UK, to build a picture of the UK offshore wind industry's health and safety challenges.

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Introduction from the Chairman

The UK has 30 offshore wind farms generating over 5.1 GW, with a further 4.5 GW operational capacity under construction. In 2016 the offshore wind industry produced approximately 5 % of the UK's power demand and it is expected to contribute 10 % by 2020. The industry is becoming much more competitive and driving efficiencies in many areas, which is reflected in recent strike prices for new offshore wind farms. In this context, the safety agenda must remain top priority and I am therefore delighted to present our UK 2016 annual incident data report.

Several important milestones were achieved by the G+ in 2016; we appointed our first General Manager following the UK Health and Safety Executive (HSE) Offshore Wind Leaders' event in November 2015, which has assisted greatly with our mandate to take on a more visible industry leadership role. I was keen to demonstrate to industry how the G+ as a collective can influence health and safety performance, so in 2016 the Focal Group prepared several 'quick win' items which could be immediately implemented by member companies. I was proud to launch these alongside G+ colleagues at our annual Stakeholder Forum in December 2016.

Along with the companion 2016 global report (published June 2017), the UK 2016 incident data report provides an overview of health and safety performance at offshore wind farms in the UK, including industry benchmarking metrics. We have also made available anonymised incident data as an Annex to this report for further independent analysis. Our commitment to openness and transparency is a fundamental aspect of the G+ and we strongly believe that sharing our methods and data is necessary to improve health and safety performance across the offshore wind industry.

Based on learnings from this and previous reports, in 2017 there will be changes to the type of information we collect. I am pleased to highlight that further information on the direct and underlying causes of lost work day incidents will be collected through the G+ and feature in the UK 2017 annual report. There is a real need to understand the organisational causes of incidents if there is to be a significant improvement across the industry.

The G+ Focal Group used the 2015 data to create detailed work proposals on manual handling and dropped object incidents, both of which were identified as higher risk, and funding has been authorised to deliver on these. Additionally, the Board approved updates to the 2014 *Working at Height and Small Service Vessel* guidelines to ensure that they remain fit for purpose and valuable to industry.

In conclusion, I would like to say that 2017 will be an important year for the G+ and the wider offshore wind industry as we look to continue reducing the number of incidents occurring on our operation and construction sites. Through our own work programme, those of other organisations, collaboration with key stakeholders and our partnership with the Energy Institute, it is imperative that we focus on ensuring our employees are safe and free from harm.



Jonathan Cole

Chairman – G+ Global offshore wind health and safety organisation
 Managing Director - Offshore
 ScottishPower Renewables



Map of UK offshore wind farm sites

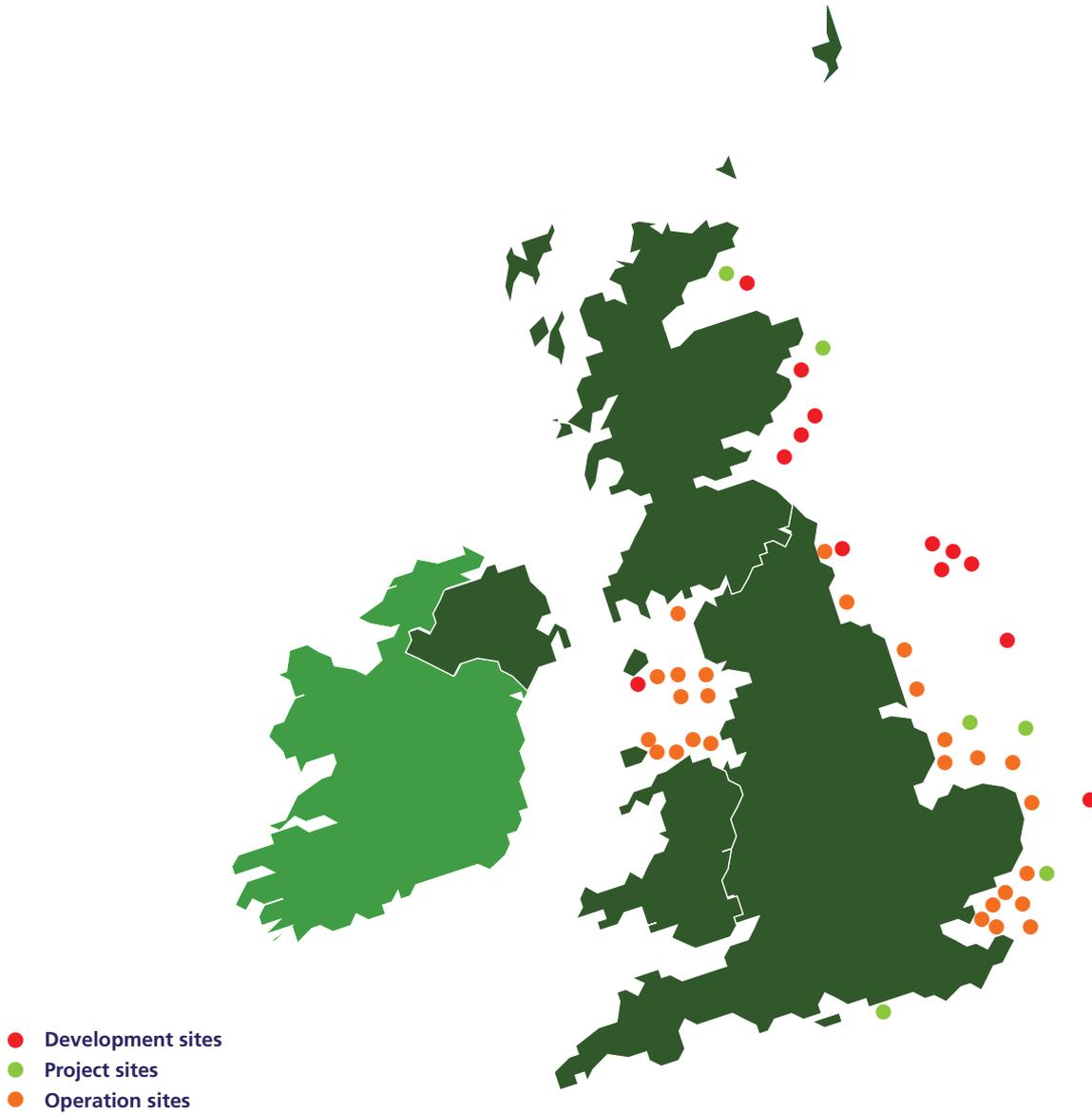


Figure 1: UK Offshore wind farm sites

List of UK offshore wind farm sites

Round one	Round two	Round three	Round one and two extension sites	Scottish territorial waters
Barrow	Dudgeon	Dogger Bank Creyke Beck A & B	Burbo Bank Extension	Beatrice
Beatrice Demo	Greater Gabbard	Dogger Bank	Galloper (Greater Gabbard Extension)	Hywind Scotland
Blyth	Gunfleet Sands I & II	Teeside A & B	Kentish Flats Extension	Inch Cape*
Burbo Bank	Gwynt y Mor	East Anglia One	Walney Extension	Neart na Gaoithe**
Kentish Flats	Humber Gateway	East Anglia Two	Blyth Offshore Wind	
Lynn & Inner Dowsing	Lincs	Firth of Forth	Demonstration Project 2	
Kentish Flats	London Array	Moray Firth		
North Hoyle	Race Bank	Rampion		
Ormonde	Sheringham Shoal			
Rhyl Flats	Thanet			
Robin Rigg	Triton Knoll			
Scroby Sands	Walney I & II			
Teesside Wind Farm	West of Duddon Sands			
	Westermost Rough			

* These offshore wind farm sites submitted partial data.

** These offshore wind farm sites did not supply incident data for this report.

2016 highlights

2016: key facts and figures

Key facts

737	reported incidents
0	fatalities
23	total lost work day incidents
3	incidents reported under RIDDOR
9	incidents resulting in an emergency response or medical evacuation
516	incidents occurred on operational sites
219	incidents occurred on project sites
2	incidents occurred during development work

Work process

167	incidents during marine operations*
95	incidents during lifting operations
110	incidents when working at heights
65	incidents occurred when operating plant and machinery

Incident area

323	incidents occurred in the turbine region
187	incidents occurred on vessels
93	incidents occurred during onshore construction

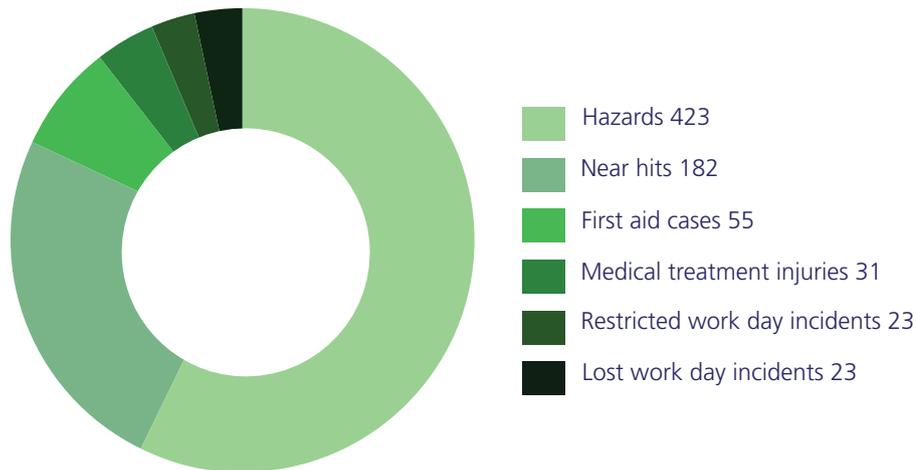


Figure 2: 2016 incident severity summary

*For further analysis of marine operations see page 14

UK safety statistics for 2016

Hours worked

	2016 (2015)	Relative to 2015
Hours worked*	10 830 000 (9 450 000)	+ 14.6 %

Industry benchmarking metrics

	2016 (2015)	Relative to 2015
Fatalities	0 (0)	No change
Lost work day incidents	23 (28)	- 18 %
Restricted work day incidents	23 (16)	+ 44 %
Medical treatment injuries	31 (31)	No change
Total	77 (75)	+ 3 %
Total recordable injury rate	7.11 (7.94)	- 10 %
Restricted work injury frequency	2.12 (1.69)	+ 25 %
Lost time injury frequency	2.12 (2.96)	- 28 %

Total recordable injury rate (TRIR)

The number of recordable injuries (fatalities + lost work day incidents + restricted work day incidents + medical treatment injuries) per 1 000 000 hours worked.

Restricted work injury frequency (RWIF)

The number of recordable injuries (restricted work day incidents) per 1 000 000 hours worked.

Lost time injury frequency (LTIF)

The number of recordable injuries (fatalities + lost work day incidents) per 1 000 000 hours worked.

* Hours worked rounded up to nearest 10 000

Emergency response or medical evacuation incidents

Summary – breakdown by incident area and work process

In 2016, there were nine emergency response or medical evacuation (ERME) incidents reported from UK sites, eight on operational sites and one on a construction site. 56 % of all ERMEs were from a vessel, and 44 % from a wind turbine generator (see Figure 3). The majority of ERME incidents were also recordable injuries (see Figure 4). Of all the incidents which resulted in an ERME, 56 % were classified as high potential (see Figure 5). Figure 5 also shows the work process during which the ERME incident took place.

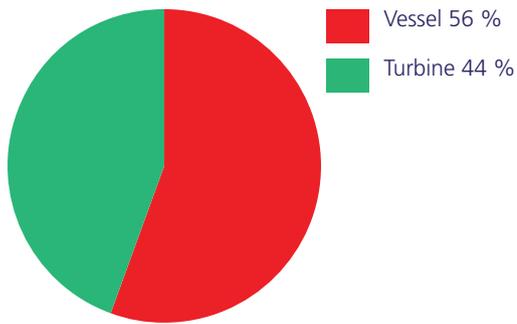


Figure 3: Incident area from which the ERME took place

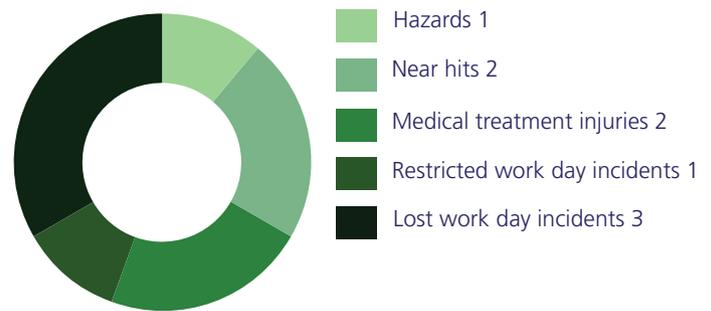


Figure 4: ERME incidents – incident consequence

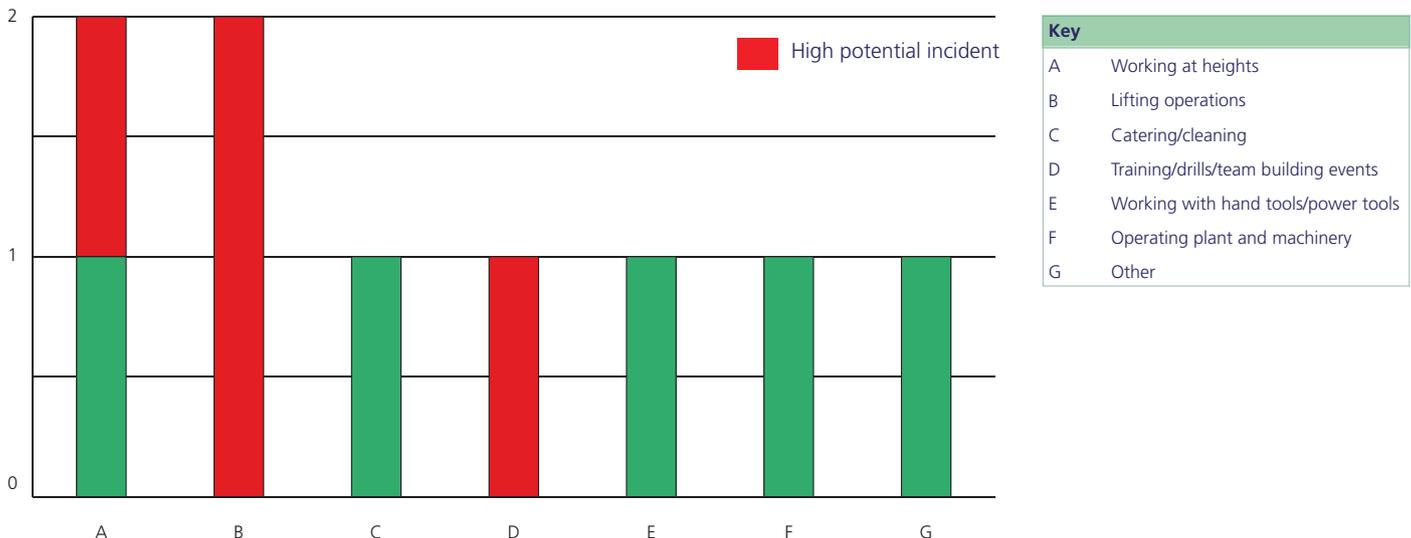


Figure 5: Work process breakdown of ERME incidents with high potential incidents identified

Onshore construction incidents

Summary – breakdown by incident area and work process

In 2016, there were 93 incidents which took place during UK onshore construction work, six of which led to lost work days (Figure 7). 57 % of these were classified as high potential. 40 % of incidents took place on excavations and civil works, and 19 % took place on onshore substations (see Figure 6). The work processes during which most incidents took place were civil works, manual handling and operating plant and machinery (see Figure 8).

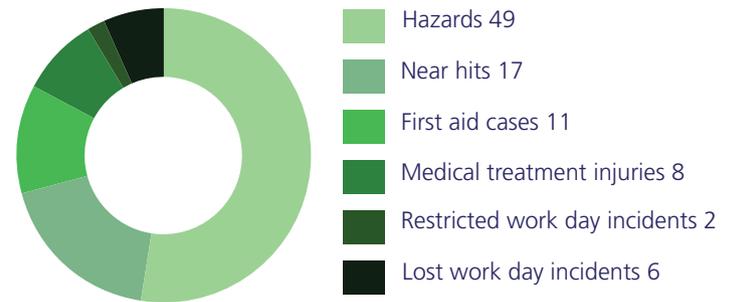
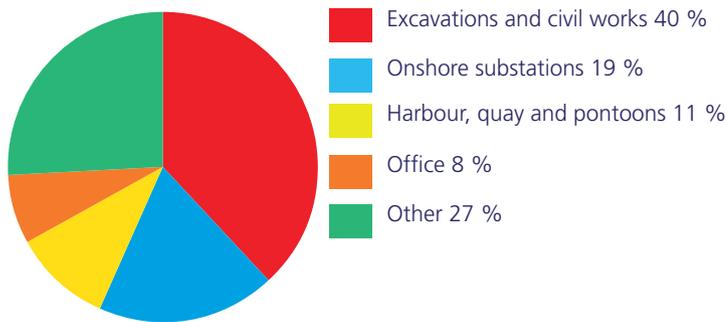


Figure 6: Incident area breakdown – onshore construction

Figure 7: Onshore construction – incident consequence

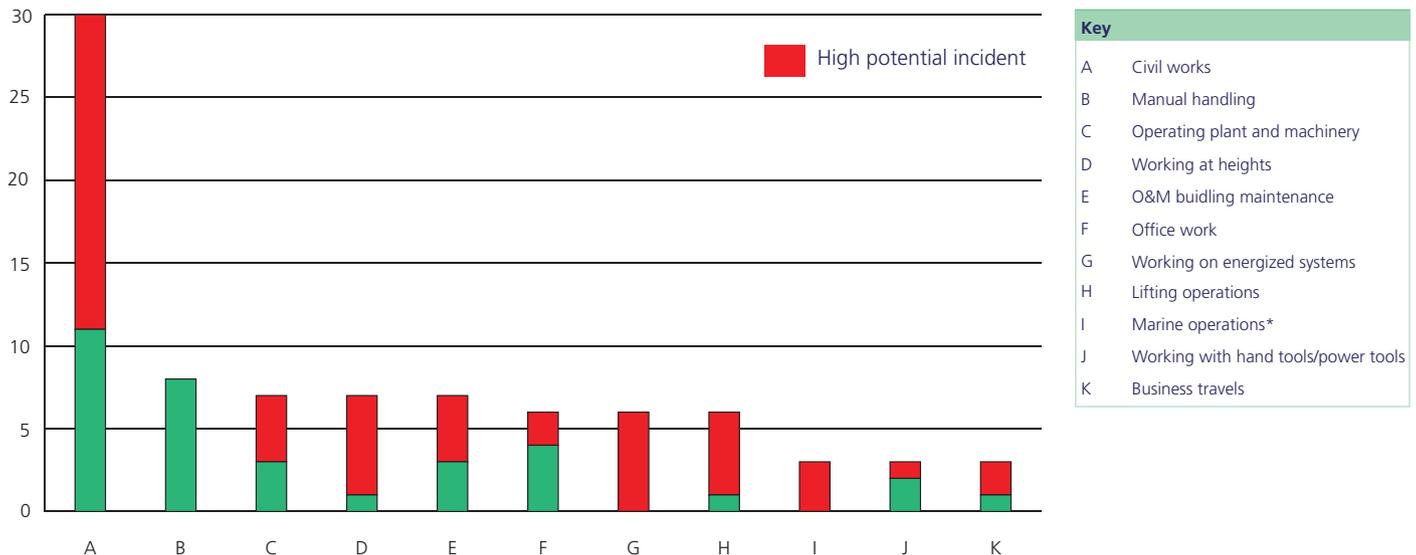


Figure 8: Onshore construction – work process breakdown with high potential incidents identified

* For further analysis of marine operations see page 14.

Lost work day incidents

Summary – breakdown by incident area and work process

There were 23 lost work day incidents reported in 2016. 35 % (8) of these incidents occurred on vessels, 35 % (8) occurred on a turbine, and 30 % (7) onshore – including three incidents on onshore substations (see Figure 9). The highest number of lost work day incidents occurred during manual handling (6) and working at height (4) (see Figure 10). Four lost work day incidents were also classified as high potential.

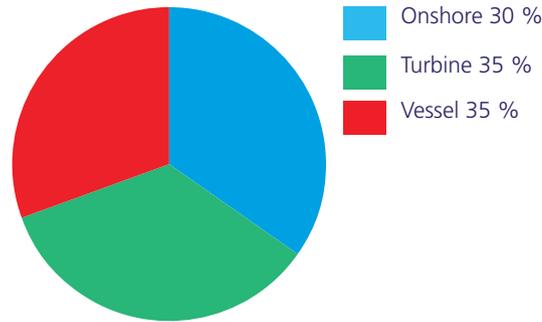


Figure 9: Lost work day incidents – incident area breakdown

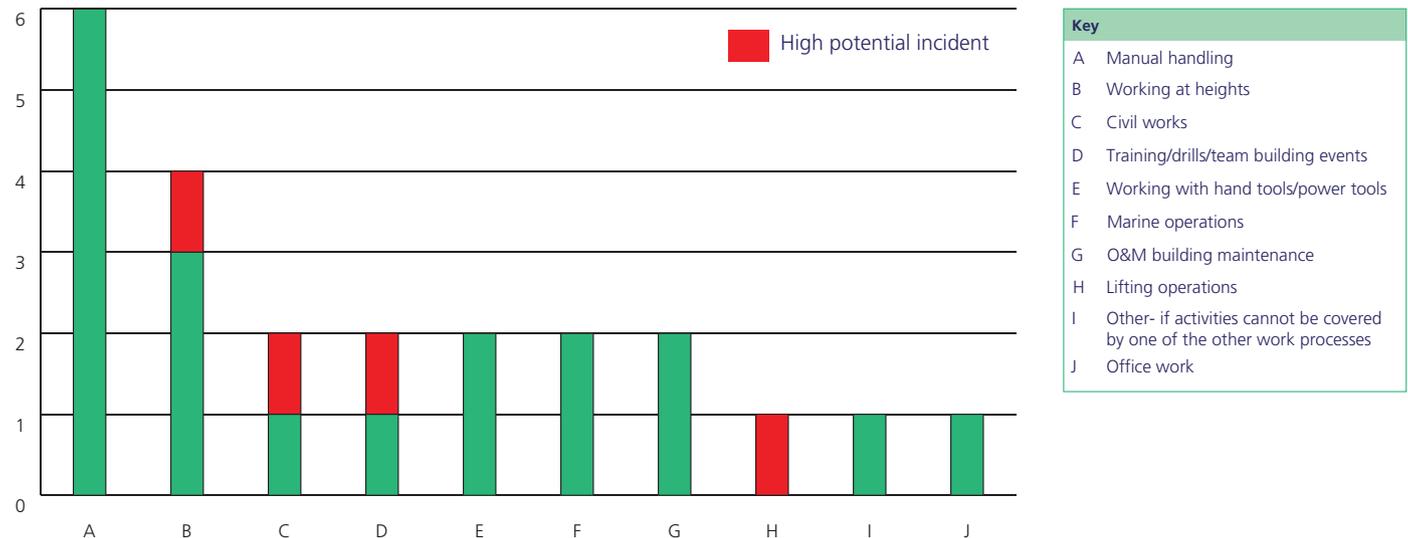


Figure 10: Lost work day incidents - work process breakdown with high potential incidents identified

* For further analysis of marine operations see page 14

Incident data summary – work process

For 2016 reporting, there were a total of 25 work process categories which could be selected (see Annex A for a full listing). For the purposes of this report the top 10 work processes are shown, and the proportion of high potential incidents which occurred within each work process has been identified (see Figure 11). This shows that working at height, lifting operations and civil works had the highest proportion of incidents identified as high potential.

The 'other' category covers work processes which did not fit into any of the 25 defined categories.

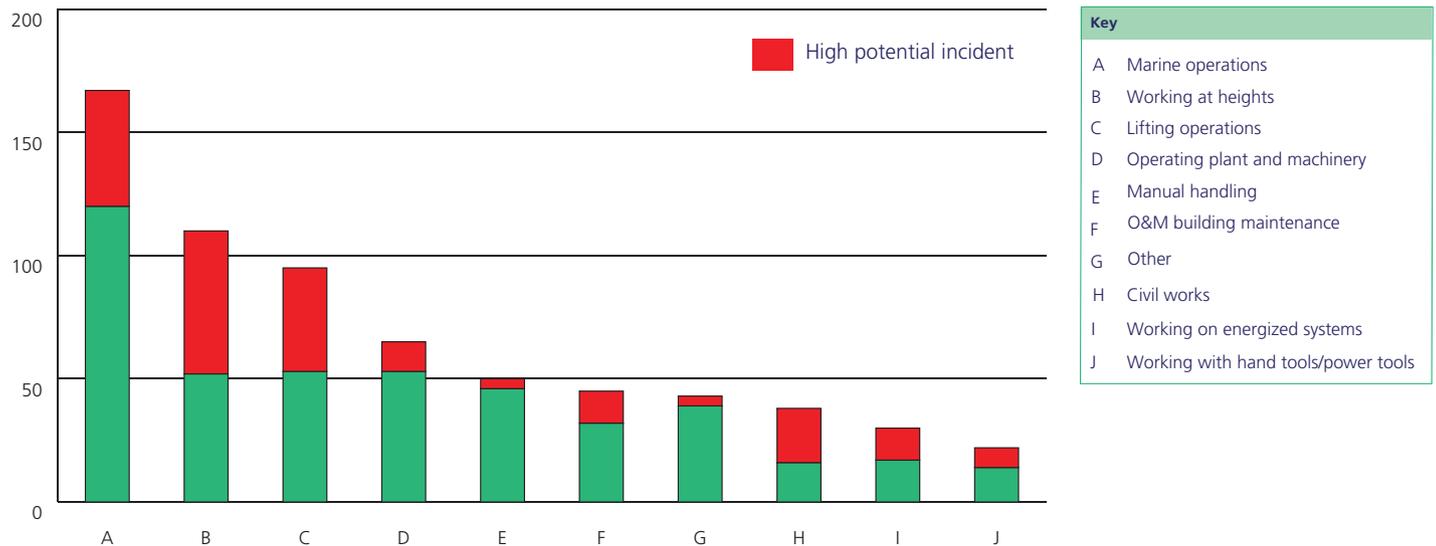


Figure 11: Top 10 work processes during which incidents occurred, with high potential incidents identified

* For further analysis of marine operations see page 14

Work process analysis: Manual handling

Summary – breakdown by incident area and consequence

In 2016, there were 50 incidents which occurred during manual handling work, six of which resulted in lost work day incidents. The incidents were evenly distributed over vessels, turbines and onshore areas, although cable installation vessels (16 %) and the nacelle (12 %) were where the highest number of incidents occurred. There were few high potential incidents resulting from manual handling work.

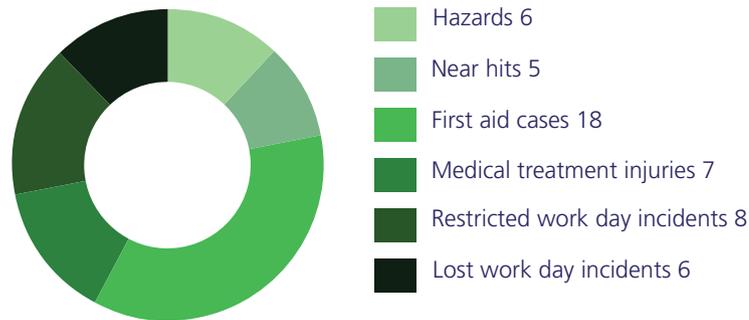


Figure 12: Manual handling – incident consequence

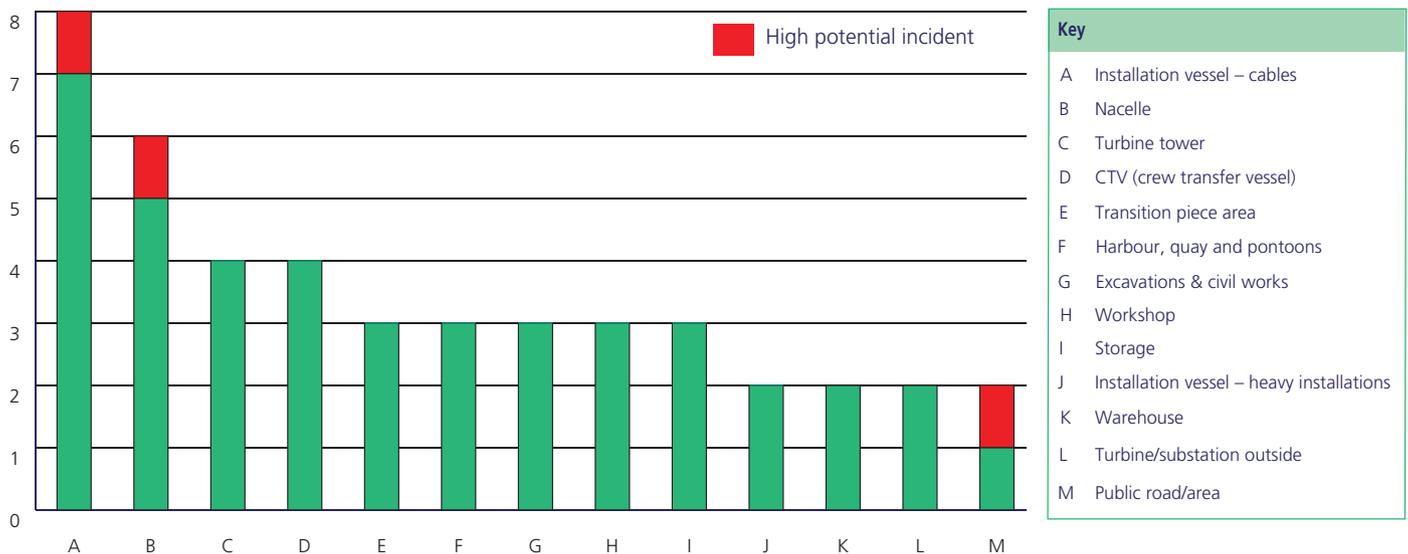


Figure 13: Manual handling – incident area breakdown with high potential incidents identified

Working at height

Summary – breakdown by consequence and incident area

In 2016, there were 110 incidents which occurred while working at height, and whilst the majority of these were classified as hazards, four of the incidents resulted in lost work days (see Figure 14). Further analysis shows that 50 % of incidents were classified as high potential. Most incidents took place in the turbine, although notably working at height incidents in substation work and cable areas (onshore and offshore) were all reported as having high potential (see Figure 15).



Figure 14: Working at height – incident consequence

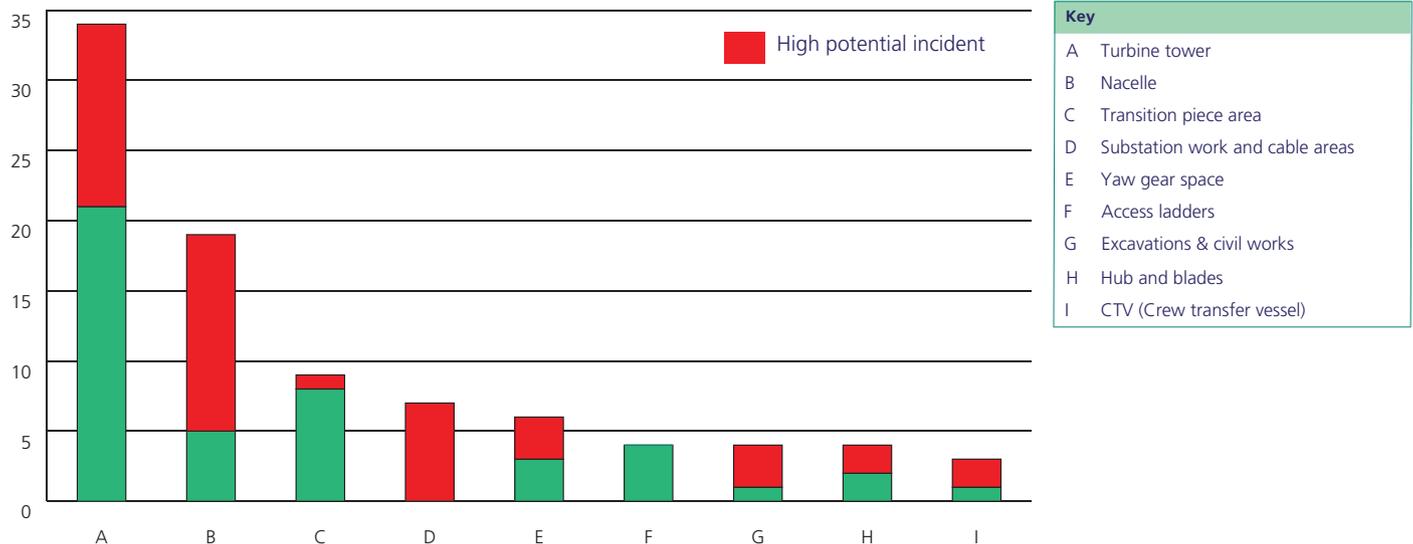


Figure 15: Working at height – incident area breakdown showing high potential incidents

Lifting operations

Summary – breakdown by incident area and consequence

Lifting operations continue to present a challenge in 2016 to the offshore wind industry. Although only one incident resulted in lost time, a high number of hazards and near hits were reported (see Figure 16). Of the incidents reported, 40 % were classified as high potential. The transition piece area was where the greatest number of incidents took place (22 %), closely followed by crew transfer vessels (17 %) (see Figure 17).

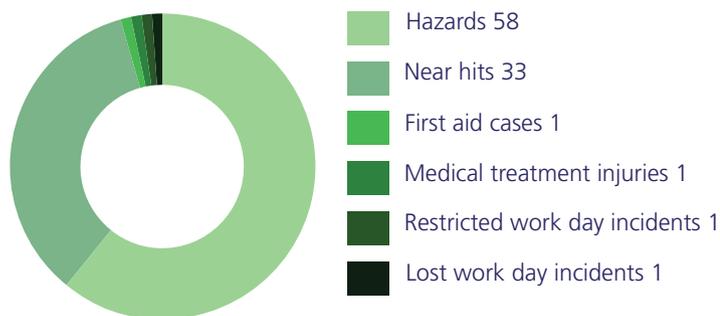


Figure 16: Lifting operations – incident consequence

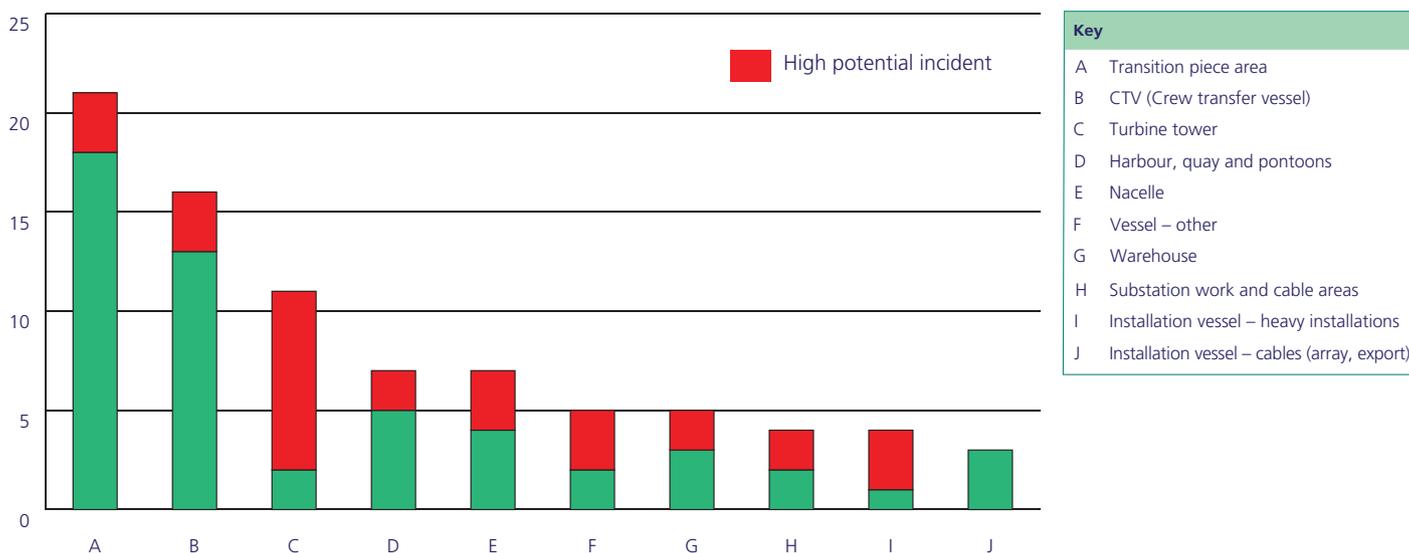


Figure 17: Lifting operations – incident area breakdown with high potential incidents identified

Marine operations

Summary – breakdown by incident area and consequence

Marine operations comprise the following work processes: maritime operations, transfer by vessel, transit by vessel, vessel operations, and vessel mobilization. 48 % of marine operations incidents occurred during transfer by vessel, and 13 % occurred during transit by vessel (see Figure 18). 18 recordable injuries took place during marine operations in 2016 (see Figure 19). The G+ has previously implemented a change to the reporting protocol to break down the types of vessel where the incident occurred, as previously a vessel was only categorised as either small or large. 109 incidents took place on crew transfer vessels, 21 of which were categorised as high potential (see Figure 20).

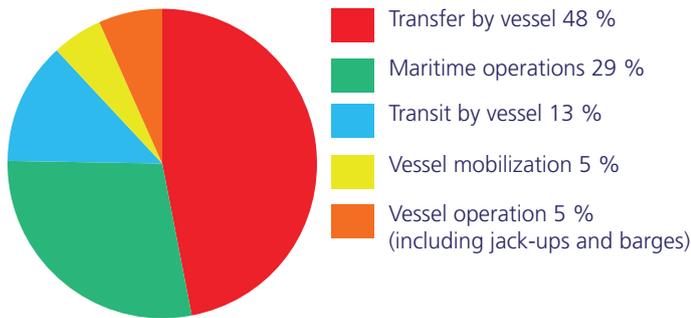


Figure 18: Marine operations – work processes

Figure 19: Marine operations – incident consequence

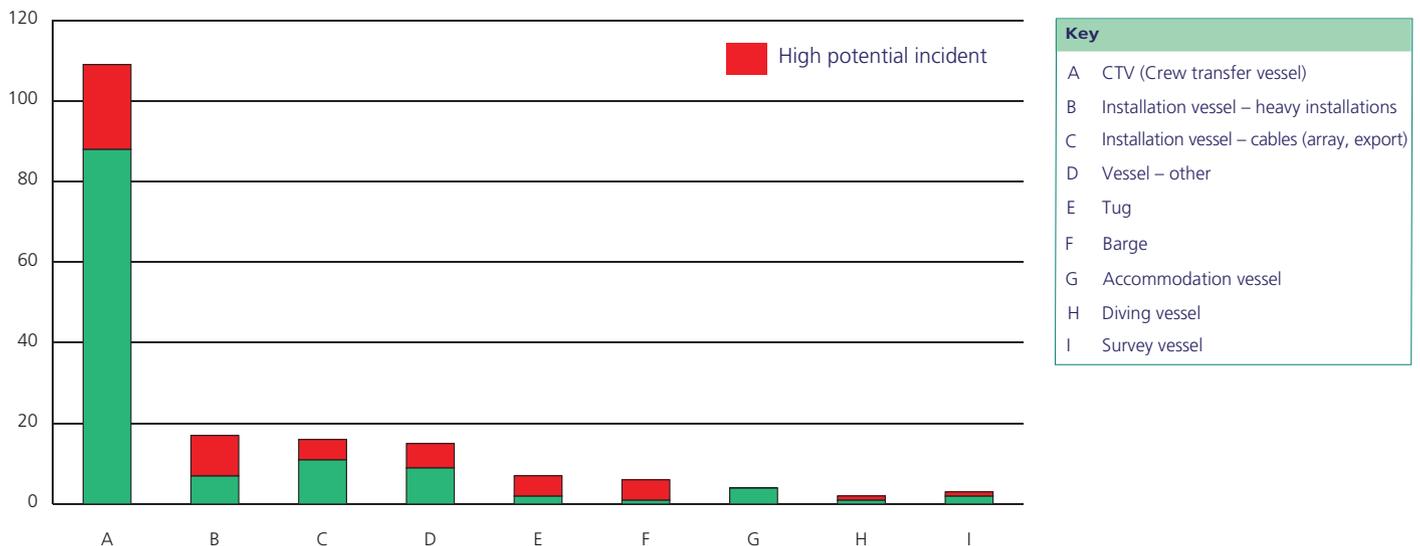


Figure 20: Incidents on vessels – breakdown by vessel type with high potential incidents identified

Dropped object incidents

Summary – breakdown by incident area, consequence and work process

In 2016 there were 66 dropped object incidents. 64 % of these occurred on the turbine, 15 % on vessels and 17 % during onshore activity (see Figure 21). The majority of dropped object incidents were recorded as near hits (see Figure 22). 42 % of incidents occurred during lifting operations and 12 % occurred while working at height (see Figure 23). 45 % of all dropped object incidents were classified as high potential.

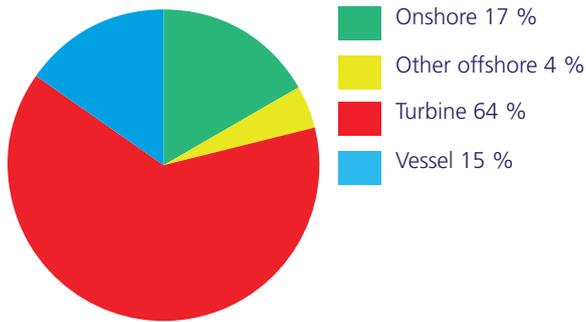


Figure 21: Dropped objects – incident area summary

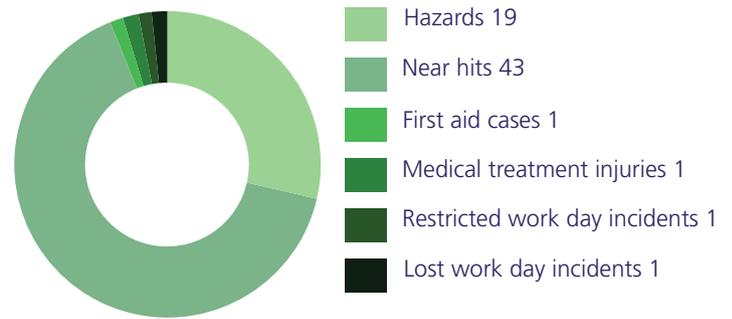


Figure 22: Dropped objects – incident consequence

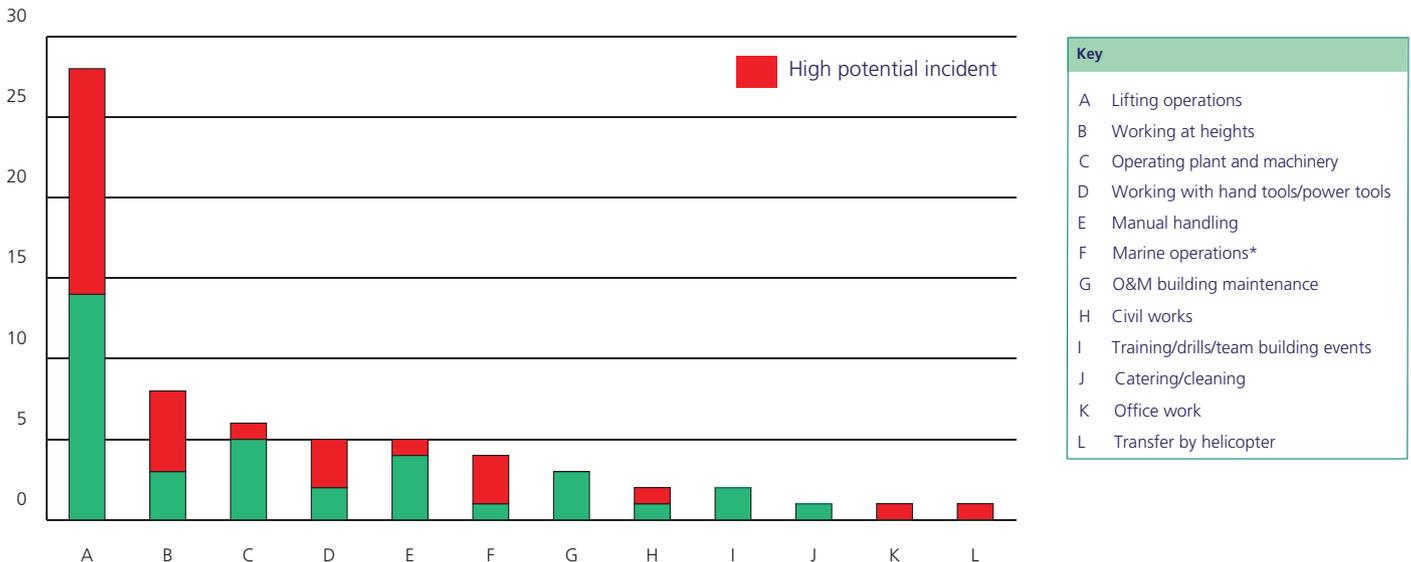


Figure 23: Dropped objects – work process breakdown with high potential incidents identified

* For further analysis of marine operations see page 14

Key	
A	Lifting operations
B	Working at heights
C	Operating plant and machinery
D	Working with hand tools/power tools
E	Manual handling
F	Marine operations*
G	O&M building maintenance
H	Civil works
I	Training/drills/team building events
J	Catering/cleaning
K	Office work
L	Transfer by helicopter

High potential incidents

Summary – breakdown by incident area, consequence and work process

In 2016, 248 incidents were reported as high potential. 37 % of incidents occurred on the turbine, 23 % on vessels and 29 % onshore (see Figure 24). Of these, 25 (10 %) incidents occurred on onshore and offshore substations. In terms of work processes 23% of incidents occurred whilst working at height, 19 % during marine operations* and 17 % during lifting operations (see Figure 26). Whilst in some instances there may be no actual consequence or injury occurring (74 % of high potential incidents were classified as hazards – see Figure 25), given the incident has been recorded as having high potential it warrants further analysis and investigation and this is something the G+ are committed to undertaking.

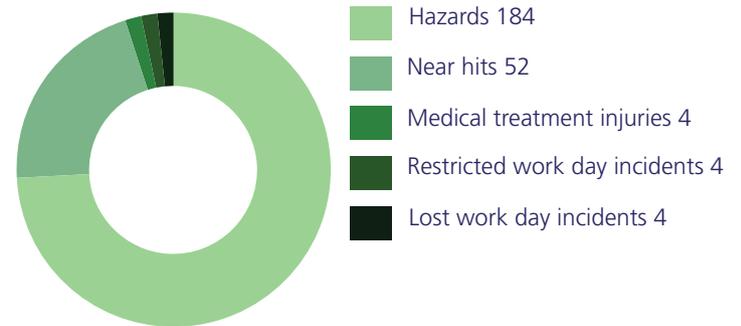
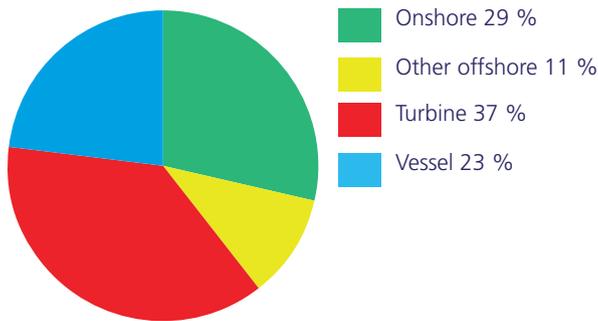


Figure 24: High potential – incident area summary

Figure 25: High potential – incident consequence

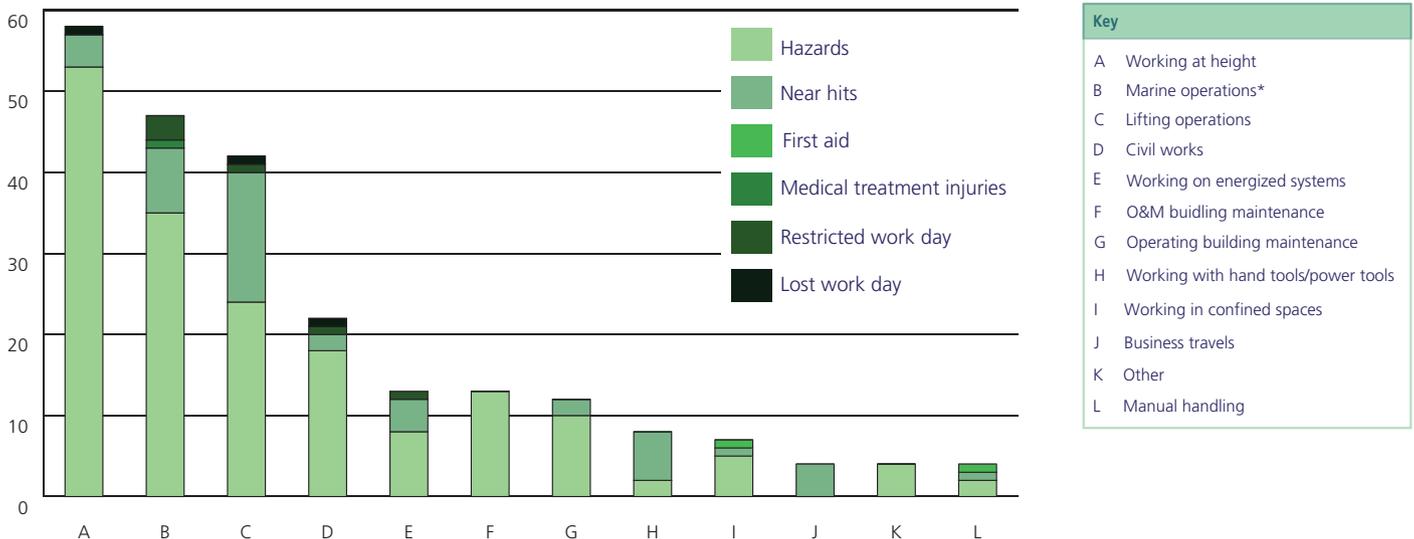


Figure 26: High potential – work process breakdown

* For further analysis of marine operations see page 14

Project and operation sites

Offshore wind farms comprise projects which are either in the development, project (construction) or operational phases. These are defined as:

Project site: Commissioning and construction

Operation site: Site in operation producing power

Development phase: Development and consenting

A breakdown of the incident data (for incidents resulting in medical treatment injuries, restricted work days or lost work days) in project or operational phases for the top 10 work processes is shown in Figure 27. Manual handling work has resulted in the highest number of injuries on both site types. Working at heights and transfer by vessel have resulted in injuries on operational sites. Injuries during civil works have only occurred on project sites.

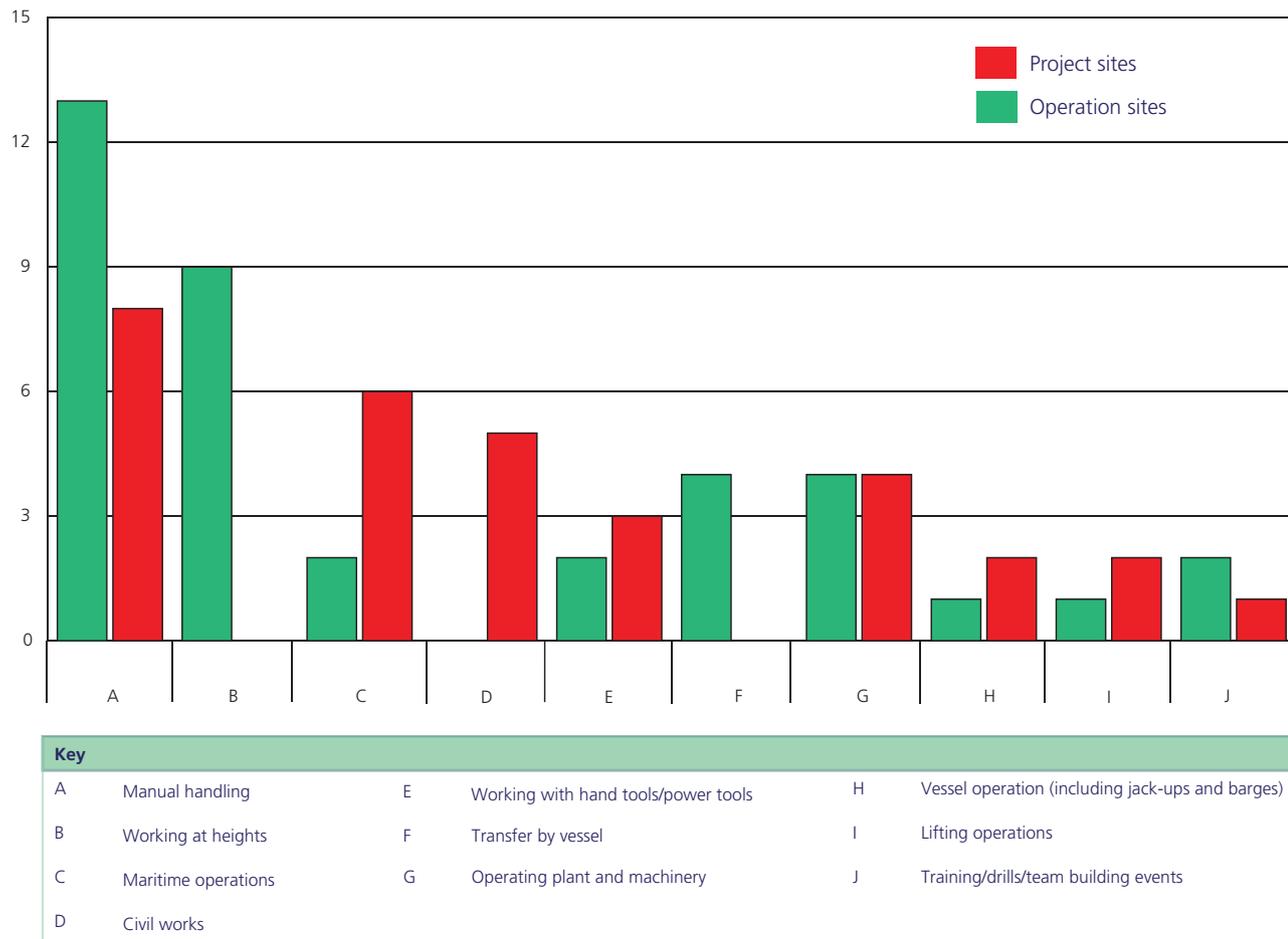


Figure 27: Work process – project/operation site breakdown

Annex A

Table A1: Incident data reported – Business travels

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident	ERME incident?
Operation site	Car park	Business travels	No	Near hits	No	No
Project site	Excavations and civil works	Business travels	No	Near hits	Yes	No
Project site	Excavations and civil works	Business travels	No	Near hits	Yes	No
Operation site	Public road/area	Business travels	No	Near hits	Yes	No
Operation site	Public road/area	Business travels	No	Near hits	Yes	No
Project site	Public road/area	Business travels	No	Near hits	No	No

Table A2: Incident data reported – Catering/cleaning

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Car park	Catering/cleaning	No	Medical treatment injuries	No	No
Operation site	CTV (crew transfer vessel)	Catering/cleaning	No	First aid	No	No
Project site	Installation vessel – cables (array, export)	Catering/cleaning	No	Near hits	No	No
Operation site	Kitchen and canteen	Catering/cleaning	No	First aid	No	No
Project site	Substation work and cable areas	Catering/cleaning	No	Hazards	Yes	No
Operation site	Vessel – other	Catering/cleaning	No	Hazards	No	Yes
Operation site	Warehouse	Catering/cleaning	Yes	Near hits	No	No

Table A3: Incident data reported – Civil works

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Access ladders	Civil works	Yes	Near hits	No	No
Project site	Access roads	Civil works	No	Near hits	No	No
Project site	Administration	Civil works	No	Near hits	No	No
Project site	Car park	Civil works	No	Near hits	No	No
Project site	CTV (Crew transfer vessel)	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Medical treatment injuries	No	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	Hazards	Yes	No
Project site	Excavations and civil works	Civil works	No	First aid	No	No
Project site	Excavations and civil works	Civil works	No	First aid	No	No
Project site	Excavations and civil works	Civil works	No	Medical treatment injuries	Yes	No
Project site	Excavations and civil works	Civil works	No	First aid	No	No
Project site	Excavations and civil works	Civil works	No	Hazards	No	No

Table A3: Incident data reported – Civil works (continued)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Foundation internal	Civil works	No	Lost work day	No	No
Project site	Foundation internal	Civil works	No	Lost work day	Yes	No
Project site	Foundation internal	Civil works	No	Near hits	No	No
Project site	Foundation internal	Civil works	No	First aid	No	No
Operation site	Nacelle	Civil works	Yes	Hazards	Yes	No
Project site	Office	Civil works	No	Hazards	Yes	No
Operation site	Public road/area	Civil works	No	Hazards	No	No
Project site	Substation work and cable areas	Civil works	No	Near hits	Yes	No
Project site	Substation work and cable areas	Civil works	No	Hazards	Yes	No
Project site	Substation work and cable areas	Civil works	No	Hazards	Yes	No
Project site	Substation work and cable areas	Civil works	No	Hazards	Yes	No
Project site	Substation work and cable areas	Civil works	No	First aid	No	No
Project site	Substation work and cable areas	Civil works	No	Hazards	No	No

Table A4: Incident data reported – Diving operations

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Diving vessel	Diving operations	No	Near hits	Yes	No
Project site	Diving vessel	Diving operations	No	Near hits	No	No

Table A5: Incident data reported – Hot works

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Hot works	No	Hazards	Yes	No
Project site	Other	Hot works	No	Near hits	Yes	No
Project site	Substation work and cable areas	Hot works	No	Hazards	Yes	No
Operation site	Warehouse	Hot works	No	Hazards	No	No

Table A6: Incident data reported – Lifting operations

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Access ladders	Lifting operations	No	Hazards	Yes	No
Project site	Access roads	Lifting operations	No	Near hits	Yes	No
Operation site	Accommodation vessel	Lifting operations	No	Hazards	No	No
Project site	Barge	Lifting operations	No	Lost work day	Yes	Yes
Project site	Barge	Lifting operations	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Medical treatment injuries	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Project site	Excavations and civil works	Lifting operations	No	Hazards	Yes	No
Project site	Excavations and civil works	Lifting operations	No	Near hits	Yes	No
Operation site	Foundation external (excluding boatlanding and TP)	Lifting operations	No	Hazards	Yes	No
Project site	Foundation internal	Lifting operations	No	Hazards	Yes	No
Operation site	Harbour, quay and pontoons	Lifting operations	Yes	Near hits	No	No
Project site	Harbour, quay and pontoons	Lifting operations	No	Hazards	Yes	No
Project site	Harbour, quay and pontoons	Lifting operations	Yes	Near hits	No	No
Operation site	Harbour, quay and pontoons	Lifting operations	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Lifting operations	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Lifting operations	No	Near hits	Yes	No
Operation site	Harbour, quay and pontoons	Lifting operations	No	Hazards	No	No
Project site	Hub and blades	Lifting operations	No	Restricted work day	Yes	No
Operation site	Hub and blades	Lifting operations	No	Hazards	No	No
Project site	Installation vessel – cables (array, export)	Lifting operations	No	Hazards	Yes	No
Project site	Installation vessel – cables (array, export)	Lifting operations	Yes	Near hits	Yes	No
Project site	Installation vessel – cables (array, export)	Lifting operations	No	Hazards	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Lifting operations	No	Hazards	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Lifting operations	No	Near hits	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Lifting operations	No	Hazards	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Lifting operations	No	Hazards	No	No
Operation site	Nacelle	Lifting operations	Yes	Near hits	Yes	No
Operation site	Nacelle	Lifting operations	Yes	Near hits	Yes	No
Operation site	Nacelle	Lifting operations	No	Near hits	No	No
Operation site	Nacelle	Lifting operations	No	Near hits	No	No
Operation site	Nacelle	Lifting operations	No	Hazards	Yes	No

Table A6: Incident data reported – Lifting operations (continued)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Access ladders	Lifting operations	No	Hazards	Yes	No
Project site	Access roads	Lifting operations	No	Near hits	Yes	No
Operation site	Accommodation vessel	Lifting operations	No	Hazards	No	No
Project site	Barge	Lifting operations	No	Lost work day	Yes	Yes
Project site	Barge	Lifting operations	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Medical treatment injuries	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	Yes	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Lifting operations	No	Hazards	No	No
Project site	Excavations and civil works	Lifting operations	No	Hazards	Yes	No
Project site	Excavations and civil works	Lifting operations	No	Near hits	Yes	No
Operation site	Foundation external (excluding boatlanding and TP)	Lifting operations	No	Hazards	Yes	No
Project site	Foundation internal	Lifting operations	No	Hazards	Yes	No
Operation site	Harbour, quay and pontoons	Lifting operations	Yes	Near hits	No	No
Project site	Harbour, quay and pontoons	Lifting operations	No	Hazards	Yes	No
Project site	Harbour, quay and pontoons	Lifting operations	Yes	Near hits	No	No
Operation site	Harbour, quay and pontoons	Lifting operations	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Lifting operations	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Lifting operations	No	Near hits	Yes	No
Operation site	Harbour, quay and pontoons	Lifting operations	No	Hazards	No	No
Project site	Hub and blades	Lifting operations	No	Restricted work day	Yes	No
Operation site	Hub and blades	Lifting operations	No	Hazards	No	No
Project site	Installation vessel – cables (array, export)	Lifting operations	No	Hazards	Yes	No
Project site	Installation vessel – cables (array, export)	Lifting operations	Yes	Near hits	Yes	No
Project site	Installation vessel – cables (array, export)	Lifting operations	No	Hazards	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Lifting operations	No	Hazards	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Lifting operations	No	Near hits	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Lifting operations	No	Hazards	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Lifting operations	No	Hazards	No	No
Operation site	Nacelle	Lifting operations	Yes	Near hits	Yes	No
Operation site	Nacelle	Lifting operations	Yes	Near hits	Yes	No
Operation site	Nacelle	Lifting operations	No	Near hits	No	No
Operation site	Nacelle	Lifting operations	No	Near hits	No	No
Operation site	Nacelle	Lifting operations	No	Hazards	Yes	No
Operation site	Nacelle	Lifting operations	Yes	Near hits	No	No
Operation site	Nacelle	Lifting operations	Yes	Near hits	No	No
Project site	Substation work and cable areas	Lifting operations	No	Hazards	Yes	No
Operation site	Substation work and cable areas	Lifting operations	No	Hazards	Yes	No

Table A6: Incident data reported – Lifting operations (continued)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Substation work and cable areas	Lifting operations	No	Hazards	No	No
Operation site	Substation work and cable areas	Lifting operations	No	First aid	No	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	No	No
Project site	Transition piece area	Lifting operations	Yes	Near hits	Yes	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	Yes	No
Project site	Transition piece area	Lifting operations	Yes	Near hits	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	Yes	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Turbine assembly area	Lifting operations	Yes	Hazards	No	No
Operation site	Turbine tower	Lifting operations	Yes	Near hits	Yes	No
Operation site	Turbine tower	Lifting operations	No	Hazards	Yes	No
Operation site	Turbine tower	Lifting operations	Yes	Near hits	Yes	No
Operation site	Turbine tower	Lifting operations	No	Hazards	Yes	No
Operation site	Turbine tower	Lifting operations	No	Hazards	Yes	No
Operation site	Turbine tower	Lifting operations	No	Hazards	Yes	No
Operation site	Turbine tower	Lifting operations	Yes	Near hits	Yes	No
Operation site	Turbine tower	Lifting operations	No	Hazards	Yes	No
Operation site	Turbine tower	Lifting operations	No	Near hits	No	No
Operation site	Turbine tower	Lifting operations	Yes	Hazards	Yes	No
Project site	Turbine tower	Lifting operations	Yes	Near hits	No	No
Operation site	Vessel – other	Lifting operations	Yes	Near hits	Yes	Yes
Project site	Vessel – other	Lifting operations	Yes	Near hits	Yes	No
Operation site	Vessel – other	Lifting operations	No	Hazards	Yes	No
Operation site	Vessel – other	Lifting operations	No	Hazards	No	No
Project site	Vessel – other	Lifting operations	No	Hazards	No	No
Operation site	Warehouse	Lifting operations	Yes	Near hits	Yes	No
Project site	Warehouse	Lifting operations	No	Hazards	Yes	No
Operation site	Warehouse	Lifting operations	No	Hazards	No	No
Operation site	Warehouse	Lifting operations	No	Hazards	No	No
Operation site	Warehouse	Lifting operations	No	Hazards	No	No

Table A7: Incident data reported – Manual handling

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Barge	Manual handling	No	Medical treatment injuries	No	No
Operation site	Company vehicle	Manual handling	Yes	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Manual handling	No	Restricted work day	No	No
Operation site	CTV (crew transfer vessel)	Manual handling	No	Lost work day	No	No
Operation site	CTV (crew transfer vessel)	Manual handling	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Manual handling	No	Medical treatment injuries	No	No
Project site	Excavations and civil works	Manual handling	No	Lost work day	No	No
Project site	Excavations and civil works	Manual handling	No	First aid	No	No
Project site	Excavations and civil works	Manual handling	No	First aid	No	No
Operation site	Foundation external (excluding boatlanding and TP)	Manual handling	No	Restricted work day	No	No
Project site	Harbour, quay and pontoons	Manual handling	No	Medical treatment injuries	No	No
Operation site	Harbour, quay and pontoons	Manual handling	No	First aid	No	No
Operation site	Harbour, quay and pontoons	Manual handling	No	Hazards	No	No
Project site	Installation vessel – cables (array, export)	Manual handling	No	Hazards	Yes	No
Project site	Installation vessel – cables (array, export)	Manual handling	No	Lost work day	No	No
Project site	Installation vessel – cables (array, export)	Manual handling	No	First aid	No	No
Project site	Installation vessel – cables (array, export)	Manual handling	No	First aid	No	No
Project site	Installation vessel – cables (array, export)	Manual handling	No	First aid	No	No
Project site	Installation vessel – cables (array, export)	Manual handling	No	First aid	No	No
Project site	Installation vessel – cables (array, export)	Manual handling	No	First aid	No	No
Project site	Installation vessel – cables (array, export)	Manual handling	Yes	Lost work day	No	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Manual handling	No	First aid	No	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Manual handling	Yes	Medical treatment injuries	No	No
Operation site	Nacelle	Manual handling	No	First aid	No	No
Operation site	Nacelle	Manual handling	No	First aid	No	No
Operation site	Nacelle	Manual handling	No	Restricted work day	No	No
Operation site	Nacelle	Manual handling	No	Medical treatment injuries	No	No
Operation site	Nacelle	Manual handling	No	Near hits	Yes	No
Operation site	Nacelle	Manual handling	No	Lost work day	No	No
Operation site	Public road/area	Manual handling	No	Near hits	No	No
Operation site	Public road/area	Manual handling	No	Medical treatment injuries	Yes	No
Project site	Storage	Manual handling	Yes	Restricted work day	No	No
Operation site	Storage	Manual handling	No	Restricted work day	No	No
Operation site	Storage	Manual handling	No	First aid	No	No
Project site	Substation work and cable areas	Manual handling	No	First aid	No	No
Operation site	Transition piece area	Manual handling	No	Lost work day	No	No
Operation site	Transition piece area	Manual handling	No	Near hits	No	No
Project site	Transition piece area	Manual handling	Yes	Near hits	No	No
Project site	Turbine assembly area	Manual handling	No	Medical treatment injuries	No	No
Project site	Turbine tower	Manual handling	No	First aid	No	No
Operation site	Turbine tower	Manual handling	No	Hazards	No	No
Operation site	Turbine tower	Manual handling	No	First aid	No	No
Operation site	Turbine tower	Manual handling	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Manual handling	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Manual handling	No	First aid	No	No
Operation site	Warehouse	Manual handling	No	Restricted work day	No	No
Operation site	Warehouse	Manual handling	No	Restricted work day	No	No
Operation site	Workshop	Manual handling	No	Restricted work day	No	No
Survey phase	Workshop	Manual handling	No	First aid	No	No
Project site	Workshop	Manual handling	No	First aid	No	No

Table A8: Incident data reported – Maritime operations

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Administration	Maritime operations	No	Hazards	Yes	No
Project site	Array cable installation vessel	Maritime operations	No	Restricted work day	No	No
Project site	Barge	Maritime operations	No	Hazards	Yes	No
Project site	Barge	Maritime operations	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Maritime operations	No	Hazards	No	No
Project site	CTV (crew transfer vessel)	Maritime operations	No	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Maritime operations	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Maritime operations	No	Medical treatment injuries	No	No
Project site	CTV (crew transfer vessel)	Maritime operations	No	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Maritime operations	No	Near hits	Yes	No
Project site	CTV (crew transfer vessel)	Maritime operations	No	Medical treatment injuries	No	No
Project site	CTV (crew transfer vessel)	Maritime operations	No	Near hits	Yes	No
Operation site	CTV (crew transfer vessel)	Maritime operations	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Maritime operations	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Maritime operations	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Maritime operations	No	Near hits	Yes	No
Project site	Diving vessel	Maritime operations	No	Hazards	Yes	No
Project site	Foundation external (excluding boatlanding and TP)	Maritime operations	No	Hazards	Yes	No
Project site	Foundation external (excluding boatlanding and TP)	Maritime operations	No	Hazards	No	No
Project site	Harbour, quay and pontoons	Maritime operations	No	Hazards	Yes	No
Project site	Harbour, quay and pontoons	Maritime operations	No	Restricted work day	Yes	No
Operation site	Harbour, quay and pontoons	Maritime operations	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Maritime operations	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Maritime operations	No	Hazards	No	No
Project site	Installation vessel – cables (array, export)	Maritime operations	No	Hazards	Yes	No
Project site	Installation vessel – cables (array, export)	Maritime operations	No	Restricted work day	No	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Maritime operations	No	Hazards	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Maritime operations	No	Medical treatment injuries	No	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Maritime operations	No	Hazards	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Maritime operations	No	Hazards	Yes	No
Operation site	Nacelle	Maritime operations	Yes	Hazards	Yes	No
Project site	Other	Maritime operations	Yes	Hazards	Yes	No
Project site	Other	Maritime operations	Yes	Hazards	Yes	No
Project site	SOV (service operation vessel)	Maritime operations	No	Medical treatment injuries	Yes	No
Project site	Substation work and cable areas	Maritime operations	No	Hazards	Yes	No
Project site	Survey vessel	Maritime operations	No	Hazards	No	No
Project site	Tug	Maritime operations	No	Hazards	Yes	No
Project site	Tug	Maritime operations	No	Hazards	Yes	No
Project site	Tug	Maritime operations	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Maritime operations	No	Near hits	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Maritime operations	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Maritime operations	No	Hazards	No	No
Operation site	Vessel – other	Maritime operations	No	First aid	No	No
Project site	Vessel – other	Maritime operations	No	Near hits	No	No
Project site	Vessel – other	Maritime operations	No	Hazards	No	No
Project site	Vessel – other	Maritime operations	No	Near hits	No	No
Operation site	Workshop	Maritime operations	No	Restricted work day	No	No
Operation site	Yaw gear space	Maritime operations	No	First aid	No	No

Table A9: Incident data reported – O&M building maintenance

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Access roads	O&M building maintenance	No	Hazards	Yes	No
Project site	Administration	O&M building maintenance	No	Hazards	Yes	No
Operation site	Administration	O&M building maintenance	Yes	Hazards	No	No
Operation site	Boatlanding	O&M building maintenance	No	Hazards	No	No
Operation site	Car park	O&M building maintenance	No	Lost work day	No	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	Yes	No
Project site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	Yes	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	O&M building maintenance	No	Hazards	No	No
Operation site	Nacelle	O&M building maintenance	No	Hazards	Yes	No
Operation site	Nacelle	O&M building maintenance	No	Hazards	Yes	No
Operation site	Nacelle	O&M building maintenance	No	Hazards	Yes	No
Operation site	Nacelle	O&M building maintenance	Yes	Hazards	No	No
Operation site	Nacelle	O&M building maintenance	Yes	Hazards	No	No
Operation site	Nacelle	O&M building maintenance	No	Hazards	No	No
Operation site	Nacelle	O&M building maintenance	No	Hazards	No	No
Operation site	Nacelle	O&M building maintenance	No	Hazards	No	No
Operation site	Office	O&M building maintenance	No	Hazards	No	No
Project site	Substation HV areas (>1 000 V)	O&M building maintenance	No	Near hits	No	No
Project site	Substation HV areas (>1 000 V)	O&M building maintenance	No	Lost work day	No	No
Operation site	Substation work and cable areas	O&M building maintenance	No	Hazards	Yes	No
Operation site	Substation work and cable areas	O&M building maintenance	No	Hazards	Yes	No
Operation site	Transition piece area	O&M building maintenance	No	Hazards	No	No
Operation site	Transition piece area	O&M building maintenance	No	Hazards	No	No
Operation site	Turbine tower	O&M building maintenance	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	O&M building maintenance	No	Hazards	Yes	No
Operation site	Turbine/substation outside (not dedicated work areas)	O&M building maintenance	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	O&M building maintenance	No	Hazards	No	No
Operation site	Warehouse	O&M building maintenance	No	Hazards	Yes	No
Operation site	Warehouse	O&M building maintenance	No	Hazards	Yes	No
Project site	Warehouse	O&M building maintenance	No	First aid	No	No
Operation site	Warehouse	O&M building maintenance	No	Hazards	No	No
Operation site	Warehouse	O&M building maintenance	No	Near hits	No	No
Operation site	Warehouse	O&M building maintenance	No	Hazards	No	No
Operation site	Warehouse	O&M building maintenance	No	Hazards	No	No
Operation site	Warehouse	O&M building maintenance	No	Hazards	No	No
Operation site	Warehouse	O&M building maintenance	No	Hazards	No	No
Operation site	Warehouse	O&M building maintenance	No	Hazards	No	No
Project site	Workshop	O&M building maintenance	No	Hazards	Yes	No

Table A10: Incident data reported – Office work

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Administration	Office work	No	Near hits	No	No
Operation site	Administration	Office work	No	Near hits	No	No
Operation site	Hub and blades	Office work	Yes	Hazards	Yes	No
Project site	Office	Office work	No	Hazards	Yes	No
Project site	Office	Office work	No	Hazards	Yes	No
Project site	Office	Office work	No	First aid	No	No
Operation site	Office	Office work	No	First aid	No	No
Project site	Office	Office work	No	Hazards	No	No
Project site	Office	Office work	No	Hazards	No	No
Project site	Office	Office work	No	First aid	No	No
Operation site	Public road/area	Office work	No	Near hits	No	No
Project site	Staircase	Office work	No	Lost work day	No	No
Operation site	Warehouse	Office work	No	Hazards	No	No

Table A11: Incident data reported – Operating plant and machinery

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Access roads	Operating plant and machinery	No	Hazards	Yes	No
Operation site	Access roads	Operating plant and machinery	No	Near hits	No	No
Operation site	Access roads	Operating plant and machinery	No	Near hits	No	No
Operation site	Accommodation platform	Operating plant and machinery	No	Hazards	Yes	No
Operation site	Accommodation platform	Operating plant and machinery	No	Hazards	No	No
Operation site	Administration	Operating plant and machinery	No	Near hits	No	No
Operation site	Administration	Operating plant and machinery	No	Near hits	No	No
Operation site	Administration	Operating plant and machinery	No	Near hits	No	No
Operation site	Administration	Operating plant and machinery	No	Near hits	No	No
Operation site	Car park	Operating plant and machinery	Yes	Near hits	No	No
Operation site	Car park	Operating plant and machinery	No	Medical treatment injuries	No	No
Project site	Car park	Operating plant and machinery	No	Near hits	No	No
Operation site	Company vehicle	Operating plant and machinery	No	Near hits	No	No
Project site	Company vehicle	Operating plant and machinery	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Operating plant and machinery	No	First aid	No	No
Operation site	CTV (crew transfer vessel)	Operating plant and machinery	No	Near hits	No	No
Project site	Excavations and civil works	Operating plant and machinery	No	Hazards	Yes	No
Project site	Excavations and civil works	Operating plant and machinery	No	Hazards	Yes	No
Operation site	Foundation external (excluding boatlanding and TP)	Operating plant and machinery	Yes	Near hits	No	No
Operation site	Harbour, quay and pontoons	Operating plant and machinery	No	Near hits	Yes	No
Project site	Harbour, quay and pontoons	Operating plant and machinery	No	Near hits	No	No
Operation site	Harbour, quay and pontoons	Operating plant and machinery	No	Medical treatment injuries	No	No
Operation site	Hub and blades	Operating plant and machinery	No	First aid	No	No
Operation site	Hub and blades	Operating plant and machinery	No	Hazards	No	No
Operation site	Hub and blades	Operating plant and machinery	No	Hazards	No	No
Operation site	Nacelle	Operating plant and machinery	No	Near hits	No	No
Operation site	Nacelle	Operating plant and machinery	No	Near hits	No	No
Operation site	Nacelle	Operating plant and machinery	No	First aid	No	No
Operation site	Nacelle	Operating plant and machinery	No	Medical treatment injuries	No	Yes
Operation site	Nacelle	Operating plant and machinery	No	Near hits	No	No
Operation site	Nacelle	Operating plant and machinery	No	Near hits	No	No
Operation site	Nacelle	Operating plant and machinery	No	Hazards	No	No
Operation site	Nacelle	Operating plant and machinery	No	Hazards	No	No
Operation site	Nacelle	Operating plant and machinery	No	First aid	No	No

Table A11: Incident data reported – Operating plant and machinery (continued)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Nacelle	Operating plant and machinery	No	Medical treatment injuries	No	No
Operation site	Nacelle	Operating plant and machinery	No	Near hits	No	No
Operation site	Storage	Operating plant and machinery	Yes	Near hits	No	No
Operation site	Transition piece area	Operating plant and machinery	No	Near hits	No	No
Operation site	Transition piece area	Operating plant and machinery	No	Near hits	No	No
Operation site	Transition piece area	Operating plant and machinery	No	Near hits	No	No
Operation site	Transition piece area	Operating plant and machinery	No	Near hits	No	No
Operation site	Transition piece area	Operating plant and machinery	No	Hazards	Yes	No
Operation site	Transition piece area	Operating plant and machinery	No	Hazards	No	No
Operation site	Transition piece area	Operating plant and machinery	No	Hazards	No	No
Operation site	Turbine tower	Operating plant and machinery	No	Near hits	Yes	No
Operation site	Turbine tower	Operating plant and machinery	No	Near hits	No	No
Operation site	Turbine tower	Operating plant and machinery	No	Near hits	No	No
Operation site	Turbine tower	Operating plant and machinery	No	Near hits	No	No
Operation site	Turbine tower	Operating plant and machinery	No	Near hits	No	No
Operation site	Turbine tower	Operating plant and machinery	No	Hazards	No	No
Operation site	Turbine tower	Operating plant and machinery	Yes	Hazards	No	No
Operation site	Turbine tower	Operating plant and machinery	Yes	Hazards	Yes	No
Operation site	Turbine tower	Operating plant and machinery	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Operating plant and machinery	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Operating plant and machinery	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Operating plant and machinery	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Operating plant and machinery	No	Hazards	No	No
Operation site	Warehouse	Operating plant and machinery	No	Hazards	Yes	No
Operation site	Warehouse	Operating plant and machinery	No	Hazards	Yes	No
Operation site	Warehouse	Operating plant and machinery	No	Hazards	Yes	No
Project site	Warehouse	Operating plant and machinery	No	Hazards	Yes	No
Operation site	Warehouse	Operating plant and machinery	No	Near hits	No	No
Operation site	Warehouse	Operating plant and machinery	No	First aid	No	No
Operation site	Yaw gear space	Operating plant and machinery	Yes	Hazards	No	No
Operation site	Yaw gear space	Operating plant and machinery	No	Hazards	No	No

Table A12: Incident data reported – Other

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Access roads	Other	No	Medical treatment injuries	No	No
Operation site	Accommodation platform	Other	No	Near hits	No	No
Project site	Administration	Other	No	Hazards	Yes	No
Operation site	Administration	Other	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Other	No	Near hits	No	Yes
Operation site	CTV (crew transfer vessel)	Other	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Other	No	Hazards	No	No
Project site	Hub and blades	Other	No	Hazards	Yes	No
Operation site	Hub and blades	Other	No	Hazards	No	No
Operation site	Hub and blades	Other	No	Hazards	No	No
Operation site	Hub and blades	Other	No	Hazards	No	No
Operation site	Hub and blades	Other	No	Hazards	No	No
Operation site	Hub and blades	Other	No	Hazards	No	No
Operation site	Hub and blades	Other	No	Hazards	No	No
Operation site	Nacelle	Other	No	First aid	No	No
Operation site	Nacelle	Other	No	Hazards	No	No
Operation site	Nacelle	Other	No	Hazards	No	No
Operation site	Nacelle	Other	No	Hazards	No	No
Operation site	Nacelle	Other	No	Near hits	No	No
Operation site	Office	Other	No	Near hits	No	No
Operation site	Office	Other	No	Hazards	No	No
Operation site	Other	Other	No	Hazards	Yes	No
Operation site	Public road/area	Other	No	Hazards	No	No
Project site	Substation work and cable areas	Other	No	Lost work day	No	No
Operation site	Transition piece area	Other	No	First aid	No	No
Project site	Transition piece area	Other	No	Hazards	Yes	No
Operation site	Transition piece area	Other	No	Hazards	No	No
Operation site	Transition piece area	Other	No	Hazards	No	No
Operation site	Transition piece area	Other	No	Hazards	No	No
Operation site	Turbine tower	Other	No	Hazards	No	No
Operation site	Turbine tower	Other	No	Hazards	No	No
Operation site	Turbine tower	Other	No	Hazards	No	No
Operation site	Turbine tower	Other	No	Hazards	No	No
Operation site	Turbine tower	Other	No	Near hits	No	No
Operation site	Turbine tower	Other	No	Near hits	No	No
Operation site	Turbine tower	Other	No	Hazards	No	No
Operation site	Turbine tower	Other	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Other	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Other	No	Hazards	No	No
Project site	Turbine/substation outside (not dedicated work areas)	Other	No	Hazards	No	No
Operation site	Yaw gear space	Other	No	Hazards	No	No
Operation site	Yaw gear space	Other	No	Hazards	No	No
Operation site	Yaw gear space	Other	No	Hazards	No	No

Table A13: Incident data reported – Replacing major components

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Nacelle	Replacing major components	No	Restricted work day	No	No

Table A14: Incident data reported – Rigging/sliding

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Nacelle	Rigging/sliding	No	Hazards	No	No
Project site	Substation work and cable areas	Rigging/sliding	No	Hazards	Yes	No
Project site	Substation work and cable areas	Rigging/sliding	No	Hazards	Yes	No

Table A15: Incident data reported – Surveys (geophysical, environmental, meteorological)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Excavations and civil works	Surveys	No	Near hits	No	No
Survey phase	Survey vessel	Surveys	No	Near hits	No	No
Operation site	Transition piece area	Surveys	No	Near hits	No	No

Table A16: Incident data reported – Training/drills/team building events

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Excavations and civil works	Training/drills/team building events	No	Lost work day	No	No
Operation site	Harbour, quay and pontoons	Training/drills/team building events	No	Hazards	No	No
Operation site	Hub and blades	Training/drills/team building events	No	Hazards	Yes	No
Operation site	Public road/area	Training/drills/team building events	No	Medical treatment injuries	No	No
Operation site	Turbine tower	Training/drills/team building events	No	Hazards	Yes	No
Operation site	Turbine tower	Training/drills/team building events	Yes	Near hits	No	No
Operation site	Vessel – other	Training/drills/team building events	No	Lost work day	Yes	Yes
Operation site	Warehouse	Training/drills/team building events	Yes	Near hits	No	No

Table A17: Incident data reported – Transfer by helicopter

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Helicopter hoisting and landing area	Transfer by helicopter	No	Near hits	Yes	No
Operation site	Helicopter hoisting and landing area	Transfer by helicopter	No	Hazards	No	No
Operation site	Helicopter hoisting and landing area	Transfer by helicopter	No	Hazards	No	No
Operation site	Nacelle	Transfer by helicopter	Yes	Near hits	Yes	No

Table A18: Incident data reported – Transfer by vessel

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Access ladders	Transfer by vessel	No	First aid	No	No
Operation site	Accommodation vessel	Transfer by vessel	No	Hazards	No	No
Operation site	Accommodation vessel	Transfer by vessel	No	Hazards	No	No
Operation site	Accommodation vessel	Transfer by vessel	No	Near hits	No	No
Operation site	Administration	Transfer by vessel	No	Near hits	No	No
Operation site	Boatlanding	Transfer by vessel	No	Hazards	Yes	No
Project site	Boatlanding	Transfer by vessel	No	Hazards	Yes	No
Project site	Boatlanding	Transfer by vessel	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Restricted work day	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Restricted work day	Yes	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Lost work day	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	First aid	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Medical treatment injuries	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transfer by vessel	No	Hazards	No	No

Table A19: Incident data reported – Transit by vessel

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Lost work day	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	First aid	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Near hits	Yes	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Transit by vessel	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Transit by vessel	No	Medical treatment injuries	No	No
Operation site	Harbour, quay and pontoons	Transit by vessel	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Transit by vessel	No	Hazards	No	No
Operation site	Tug	Transit by vessel	No	Hazards	No	No

Table A20: Incident data reported – Vessel by mobilization

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	CTV (crew transfer vessel)	Vessel mobilization	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Vessel mobilization	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Vessel mobilization	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Vessel mobilization	No	Near hits	No	No
Operation site	CTV (crew transfer vessel)	Vessel mobilization	No	Near hits	Yes	No
Operation site	Harbour, quay and pontoons	Vessel mobilization	No	Hazards	Yes	No
Project site	Harbour, quay and pontoons	Vessel mobilization	No	Hazards	Yes	No
Operation site	Transition piece area	Vessel mobilization	Yes	Near hits	No	No
Operation site	Vessel – other	Vessel mobilization	No	Medical treatment injuries	No	No

Table A21: Incident data reported – Vessel operation (including jack-ups and barges)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Harbour, quay and pontoons	Vessel operation (including jack-ups and barges)	No	Near hits	Yes	No
Operation site	Survey vessel	Vessel operation (including jack-ups and barges)	No	Restricted work day	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Vessel operation (including jack-ups and barges)	No	Near hits	No	No
Project site	Installation vessel – cables (array, export)	Vessel operation (including jack-ups and barges)	No	Medical treatment injuries	No	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Vessel operation (including jack-ups and barges)	No	Medical treatment injuries	No	No
Operation site	CTV (crew transfer vessel)	Vessel operation (including jack-ups and barges)	No	Hazards	No	No
Operation site	CTV (crew transfer vessel)	Vessel operation (including jack-ups and barges)	No	Hazards	No	No
Operation site	Transition piece area	Vessel operation (including jack-ups and barges)	No	Hazards	No	No

Table A22: Incident data reported – Working at heights

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Access ladders	Working at heights	No	Lost work day	No	No
Operation site	Access ladders	Working at heights	No	Hazards	No	No
Operation site	Access ladders	Working at heights	No	Hazards	No	No
Operation site	Access ladders	Working at heights	No	Lost work day	No	No
Project site	Barge	Working at heights	No	Hazards	Yes	No
Operation site	Boatlanding	Working at heights	No	Hazards	Yes	No
Project site	Boatlanding	Working at heights	No	Hazards	Yes	No
Operation site	Car park	Working at heights	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Working at heights	No	Hazards	Yes	No
Project site	CTV (crew transfer vessel)	Working at heights	No	Hazards	Yes	No
Operation site	CTV (crew transfer vessel)	Working at heights	No	Hazards	No	No
Project site	Excavations and civil works	Working at heights	No	Hazards	Yes	No
Project site	Excavations and civil works	Working at heights	No	Hazards	Yes	No
Project site	Excavations and civil works	Working at heights	No	Hazards	Yes	No
Project site	Excavations and civil works	Working at heights	No	Hazards	No	No
Project site	Excavations and civil works	Working at heights	No	Hazards	No	No
Operation site	Foundation external (excluding boatlanding and TP)	Working at heights	Yes	Near hits	No	No
Project site	Foundation external (excluding boatlanding and TP)	Working at heights	No	Hazards	Yes	No
Operation site	Harbour, quay and pontoons	Working at heights	No	Near hits	No	No
Operation site	Helicopter hoisting and landing area	Working at heights	No	Hazards	Yes	No
Operation site	Hub and blades	Working at heights	No	Hazards	Yes	No
Operation site	Hub and blades	Working at heights	Yes	Near hits	Yes	No
Operation site	Hub and blades	Working at heights	No	Near hits	No	No
Operation site	Hub and blades	Working at heights	No	First aid	No	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Working at heights	No	Hazards	Yes	No
Operation site	Nacelle	Working at heights	No	Near hits	No	No
Operation site	Nacelle	Working at heights	Yes	Near hits	No	No
Operation site	Nacelle	Working at heights	Yes	Hazards	Yes	No
Operation site	Nacelle	Working at heights	No	Hazards	Yes	No
Operation site	Nacelle	Working at heights	No	Hazards	Yes	No
Operation site	Nacelle	Working at heights	No	Hazards	Yes	No
Operation site	Nacelle	Working at heights	Yes	Near hits	Yes	No
Operation site	Nacelle	Working at heights	No	Hazards	Yes	No
Project site	Nacelle	Working at heights	No	Hazards	Yes	No
Project site	Nacelle	Working at heights	No	Hazards	Yes	No
Project site	Nacelle	Working at heights	No	Hazards	Yes	No
Project site	Nacelle	Working at heights	No	Hazards	Yes	No
Project site	Nacelle	Working at heights	No	Hazards	Yes	No
Operation site	Nacelle	Working at heights	No	Hazards	Yes	No
Operation site	Nacelle	Working at heights	No	First Aid	No	No
Operation site	Nacelle	Working at heights	No	Hazards	No	No
Operation site	Nacelle	Working at heights	No	Lost work day	Yes	Yes
Operation site	Nacelle	Working at heights	No	Hazards	No	No
Operation site	Office	Working at heights	No	Near hits	No	No
Project site	Other	Working at heights	No	Hazards	Yes	No
Operation site	Other	Working at heights	No	Hazards	Yes	No
Operation site	Public road/area	Working at heights	No	Near hits	No	No
Project site	Substation work and cable areas	Working at heights	No	Hazards	Yes	No
Project site	Substation work and cable areas	Working at heights	Yes	Hazards	Yes	No
Project site	Substation work and cable areas	Working at heights	No	Hazards	Yes	No
Project site	Substation work and cable areas	Working at heights	No	Hazards	Yes	No
Project site	Substation work and cable areas	Working at heights	No	Hazards	Yes	No
Project site	Substation work and cable areas	Working at heights	No	Hazards	Yes	No

Table A22: Incident data reported – Working at heights (continued)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Substation work and cable areas	Working at heights	No	Hazards	Yes	No
Operation site	Transition piece area	Working at heights	No	First aid	No	No
Operation site	Transition piece area	Working at heights	No	First aid	No	No
Operation site	Transition piece area	Working at heights	No	Lost work day	No	No
Project site	Transition piece area	Working at heights	No	Hazards	Yes	No
Operation site	Transition piece area	Working at heights	No	Restricted work day	No	Yes
Project site	Transition piece area	Working at heights	No	Near hits	No	No
Operation site	Transition piece area	Working at heights	No	First aid	No	No
Operation site	Transition piece area	Working at heights	No	Hazards	No	No
Operation site	Transition piece area	Working at heights	No	Hazards	No	No
Project site	Tug	Working at heights	No	Hazards	Yes	No
Project site	Tug	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Near hits	No	No
Operation site	Turbine tower	Working at heights	No	Near hits	No	No
Operation site	Turbine tower	Working at heights	No	First aid	No	No
Operation site	Turbine tower	Working at heights	No	Near hits	No	No
Operation site	Turbine tower	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Hazards	Yes	No
Project site	Turbine tower	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Hazards	Yes	No
Project site	Turbine tower	Working at heights	No	Hazards	Yes	No
Operation site	Turbine tower	Working at heights	No	Near hits	Yes	No
Operation site	Turbine tower	Working at heights	No	First aid	No	No
Operation site	Turbine tower	Working at heights	No	Near hits	No	No
Operation site	Turbine tower	Working at heights	No	First aid	No	No
Operation site	Turbine tower	Working at heights	Yes	Near hits	Yes	No
Operation site	Turbine tower	Working at heights	No	Medical treatment injuries	No	No
Operation site	Turbine tower	Working at heights	No	Near hits	No	No
Operation site	Turbine tower	Working at heights	No	Near hits	No	No
Operation site	Turbine tower	Working at heights	Yes	Near hits	No	No
Operation site	Turbine tower	Working at heights	No	Restricted work day	No	No
Project site	Turbine tower	Working at heights	No	Near hits	No	No
Operation site	Turbine tower	Working at heights	No	Hazards	No	No
Operation site	Turbine tower	Working at heights	No	Medical treatment injuries	No	No
Operation site	Turbine tower	Working at heights	No	Hazards	No	No
Operation site	Turbine tower	Working at heights	No	Hazards	No	No
Operation site	Turbine tower	Working at heights	No	Hazards	No	No
Operation site	Turbine tower	Working at heights	No	Hazards	No	No
Operation site	Turbine tower	Working at heights	No	Hazards	No	No
Operation site	Turbine tower	Working at heights	No	Hazards	No	No
Operation site	Turbine tower	Working at heights	No	Hazards	No	No
Project site	Turbine/substation outside (not dedicated work areas)	Working at heights	No	Hazards	Yes	No
Operation site	Turbine/substation outside (not dedicated work areas)	Working at heights	No	Hazards	No	No
Project site	Vessel – other	Working at heights	No	Hazards	Yes	No
Project site	Vessel – other	Working at heights	No	Near hits	No	No
Operation site	Warehouse	Working at heights	No	Hazards	No	No
Operation site	Yaw gear space	Working at heights	No	Hazards	Yes	No
Operation site	Yaw gear space	Working at heights	No	Restricted work day	No	No
Operation site	Yaw gear space	Working at heights	No	Hazards	Yes	No

Table A22: Incident data reported – Working at heights (continued)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Yaw gear space	Working at heights	No	Hazards	Yes	No
Operation site	Yaw gear space	Working at heights	No	Hazards	No	No
Operation site	Yaw gear space	Working at heights	No	Hazards	No	No

Table A23: Incident data reported – Working in confined spaces

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Foundation internal	Working in confined spaces	No	Hazards	Yes	No
Operation site	Hub and blades	Working in confined spaces	No	Near hits	Yes	No
Operation site	Nacelle	Working in confined spaces	No	Restricted work day	No	No
Project site	Turbine tower	Working in confined spaces	No	Hazards	Yes	No
Operation site	Turbine tower	Working in confined spaces	No	Hazards	Yes	No
Operation site	Turbine tower	Working in confined spaces	No	Hazards	Yes	No
Project site	Yaw gear space	Working in confined spaces	No	Hazards	Yes	No
Operation site	Yaw gear space	Working in confined spaces	No	Hazards	No	No

Table A24: Incident data reported – Working on energized systems (electrical, hydraulic, pneumatic)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Boatlanding	Working on energized systems	No	Hazards	No	No
Project site	Excavations and civil works	Working on energized systems	No	Hazards	Yes	No
Project site	Harbour, quay and pontoons	Working on energized systems	No	Hazards	Yes	No
Operation site	Harbour, quay and pontoons	Working on energized systems	No	Hazards	No	No
Operation site	Hub and blades	Working on energized systems	No	Hazards	No	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Working on energized systems	No	Hazards	Yes	No
Operation site	Nacelle	Working on energized systems	No	Hazards	Yes	No
Project site	Nacelle	Working on energized systems	No	Near Hits	Yes	No
Operation site	Nacelle	Working on energized systems	No	Near Hits	Yes	No
Operation site	Nacelle	Working on energized systems	No	Near Hits	No	No
Operation site	Nacelle	Working on energized systems	No	Near hits	Yes	No
Operation site	Nacelle	Working on energized systems	No	Hazards	No	No
Operation site	Nacelle	Working on energized systems	No	Hazards	No	No
Operation site	Nacelle	Working on energized systems	No	Hazards	No	No
Project site	Other	Working on energized systems	No	Hazards	Yes	No
Project site	Substation HV areas (>1 000 V)	Working on energized systems	No	Medical treatment injuries	Yes	No
Project site	Substation HV areas (>1 000 V)	Working on energized systems	No	Hazards	Yes	No
Project site	Substation work and cable areas	Working on energized systems	No	Near Hits	Yes	No
Operation site	Substation work and cable areas	Working on energized systems	No	Hazards	No	No
Operation site	Transition piece area	Working on energized systems	No	Near Hits	No	No
Operation site	Transition piece area	Working on energized systems	No	Hazards	No	No
Operation site	Turbine tower	Working on energized systems	No	Hazards	Yes	No
Operation site	Turbine tower	Working on energized systems	No	Hazards	Yes	No
Operation site	Turbine tower	Working on energized systems	No	Near Hits	No	No
Operation site	Turbine tower	Working on energized systems	No	Hazards	No	No
Operation site	Turbine tower	Working on energized systems	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Working on energized systems	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Working on energized systems	No	Near hits	No	No
Operation site	Warehouse	Working on energized systems	No	Hazards	No	No
Operation site	Yaw gear space	Working on energized systems	No	Hazards	No	No

Table A25: Incident data reported – Working with chemicals and hazardous substances

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Installation vessel – cables (array, export)	Working with chemicals and hazardous substances	No	Hazards	No	No
Operation site	Nacelle	Working with chemicals and hazardous substances	No	Hazards	No	No
Operation site	Nacelle	Working with chemicals and hazardous substances	No	Hazards	No	No
Operation site	Turbine tower	Working with chemicals and hazardous substances	No	Hazards	No	No
Operation site	Turbine/substation outside (not dedicated work areas)	Working with chemicals and hazardous substances	No	Near hits	No	No
Operation site	Warehouse	Working with chemicals and hazardous substances	No	First aid	No	No
Operation site	Warehouse	Working with chemicals and hazardous substances	No	Hazards	No	No
Operation site	Warehouse	Working with chemicals and hazardous substances	No	Hazards	No	No
Operation site	Warehouse	Working with chemicals and hazardous substances	No	Hazards	No	No
Operation site	Warehouse	Working with chemicals and hazardous substances	No	Hazards	No	No
Operation site	Yaw gear space	Working with chemicals and hazardous substances	No	Hazards	No	No
Operation site	Yaw gear space	Working with chemicals and hazardous substances	No	Hazards	No	No

Table A26: Incident data reported – Working with hand tools/power tools

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Excavations and civil works	Working with hand tools/power tools	No	Hazards	Yes	No
Project site	Foundation internal	Working with hand tools/power tools	No	Near hits	Yes	No
Operation site	Harbour, quay and pontoons	Working with hand tools/power tools	No	Near hits	No	No
Project site	Harbour, quay and pontoons	Working with hand tools/power tools	No	Lost work day	No	No
Operation site	Hub and blades	Working with hand tools/power tools	Yes	Near hits	No	No
Operation site	Hub and blades	Working with hand tools/power tools	Yes	First aid	No	No
Operation site	Hub and blades	Working with hand tools/power tools	No	Hazards	No	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Working with hand tools/power tools	No	Near hits	Yes	No
Project site	Installation vessel – heavy installations (WTG, foundations, offshore substation)	Working with hand tools/power tools	No	Restricted work day	No	No
Operation site	Nacelle	Working with hand tools/power tools	Yes	Hazards	Yes	No
Operation site	Nacelle	Working with hand tools/power tools	No	Near hits	Yes	No
Operation site	Nacelle	Working with hand tools/power tools	No	Restricted work day	No	No
Operation site	Office	Working with hand tools/power tools	No	Hazards	No	No
Project site	Substation work and cable areas	Working with hand tools/power tools	No	Near hits	Yes	No
Project site	Substation work and cable areas	Working with hand tools/power tools	No	Lost work day	No	No
Operation site	Transition piece area	Working with hand tools/power tools	No	First aid	No	No
Operation site	Transition piece area	Working with hand tools/power tools	No	First aid	No	No
Operation site	Turbine tower	Working with hand tools/power tools	No	First aid	No	No
Operation site	Turbine tower	Working with hand tools/power tools	No	Medical treatment injuries	No	Yes
Operation site	Turbine tower	Working with hand tools/power tools	Yes	Near hits	Yes	No
Operation site	Turbine tower	Working with hand tools/power tools	No	Hazards	No	No
Operation site	Yaw gear space	Working with hand tools/power tools	Yes	Near hits	Yes	No

Annex B

The following incident consequence definitions have been used in the G+ dataset:

Fatality	Incidents that involve one or more people who died as a result of a work-related incident or occupational illness. 'Delayed' deaths that occur after the incident are to be included if the deaths were a direct result of the incident.
Lost work day	Non-fatal incidents that involve a person being unfit to perform any work on any day after the occurrence of the occupational injury. 'Any day' includes rest days, weekend days, leave days, public holidays or days after ceasing employment.
Restricted work day	Incidents that do not result in a fatality or a lost work day but do result in a person being unfit for the full performance of the regular job on any day after the occurrence of the occupational injury.
Medical treatment injury	Those incidents not severe enough to be reported as fatalities, lost work day incidents or restricted work day incidents but are more severe than requiring simple first aid treatment.
First aid	An injury which requires simple medical treatment that is self-administered or by a first aider, doctor or nurse but does not result in any lost time or long term medical care.
Near hit	A near hit is any incident which could have resulted in a work-related accident but did not either by chance or timely intervention.
Hazard	A hazard is a condition or a situation where there is a potential to cause an incident. It is important to remember that 'nothing has happened and no impact/harm has occurred'.

The following statistical definitions have been used in the UK G+ incident data analysis:

Total recordable injury rate (TRIR)	The number of fatalities, lost work day incidents, restricted work day incidents and other medical treatment injuries requiring treatment by a medical professional per million hours worked.
Restricted work injury frequency (RWIF)	The number of recordable injuries (restricted work day incident) per million hours worked
Lost time injury frequency (LTIF)	The number of fatalities and lost work day incidents per million hours worked.

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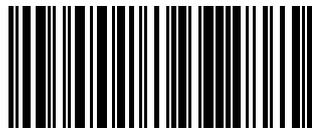
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