

UK Offshore wind HSE statistics

2015 report



G9 Offshore Wind
Health & Safety
Association

www.g9offshorewind.com

About the G9 Offshore wind health and safety association

The primary aim of the G9 is to deliver world class health and safety performance in the offshore wind industry. To achieve this, senior executives of the G9 member companies have committed resources from their companies, and have also met under the auspices of the G9 Board, to actively lead the industry in finding solutions to the safety challenges faced by offshore wind projects throughout their life cycle, from design and development through construction and in operation.

Through the sharing and analysis of HSE incidents provided by G9 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 G9 to identify the risks in the offshore wind industry, allowing the group's work to be focused in areas of high risk exposure.

Contents

Introduction from the Chairman	2
Map of UK Offshore wind farm sites	3
List of UK Offshore wind farm sites	4
2015 highlights	5
UK safety statistics for 2015	6
Incident data summary – incident area	7
Incident data summary – work process	9
Project and operation sites	10
Lost work day incidents	11
Top three work process risk analysis	12
Marine operations	12
Lifting operations	13
Operating plant and machinery	14
Dropped object incidents	15
High potential incidents	16
Emergency response or medical evacuation (ERME) incidents	17
Annex A	18
Annex B	38

Introduction from the Chairman

It is clear to see the growing importance of offshore wind to the UK's energy mix should not be underestimated. In 2014 the 4 GW milestone of installed capacity was passed and at the end of the year 4,494 MW were either in construction or in operations. In 2015 there were four more wind farms fully grid-connected, taking the total number to 27 grid connected offshore wind farms. UK offshore wind is not abating with a large pipeline of projects in planning, consenting and project phases representing the largest development of any renewable energy technology. As this sector continues to grow it will provide an increasingly valuable contribution to the UK economy, job creation, and assist the Government's energy policy to provide a clean, affordable and secure energy supply.

It is against this backdrop that I am pleased to announce to the industry publication of the 2015 UK Offshore wind HSE statistics report. In addition to G9 member UK sites, the content of this report includes data and analysis of non-G9 member companies who are developing Round 3 projects via lease agreements with the Crown Estate.

As with our companion report for the European market, this report includes an analysis of dropped objects, high potential incidents and incidents involving emergency response or medical evacuation. It also provides industry benchmarking figures so that the UK offshore wind industry safety performance can be assessed against other UK industrial sectors. The aim of the G9 has always been to deliver world class health and safety performance in the offshore wind industry, and when reviewing these figures it is clear to see that improvements are needed in order to achieve parity in performance against other sectors (e.g. oil and gas, maritime) and I will be working closely with my G9 colleagues and other industry stakeholders to ensure measures are put into place to instigate improvement in performance.

Following on from the Health & Safety Executive (HSE) industry leaders' event held last year, and the G9 response to this in April, I would like to conclude by saying that 2016 will be very important for the G9 but also the wider industry as we look to reduce the number of incidents occurring on our sites. Through the additional leadership expectations now placed on the G9, our guidelines and implementation work, collaboration with other key stakeholders and our partnership with the Energy Institute, as the UK offshore wind industry continues to grow it is imperative that we focus on ensuring our employees are safe and free from harm.



Jonathan Cole

Chairman – G9 Offshore Wind Health and Safety Association
Managing Director - Offshore
ScottishPower Renewables



Map of UK Offshore wind farm sites

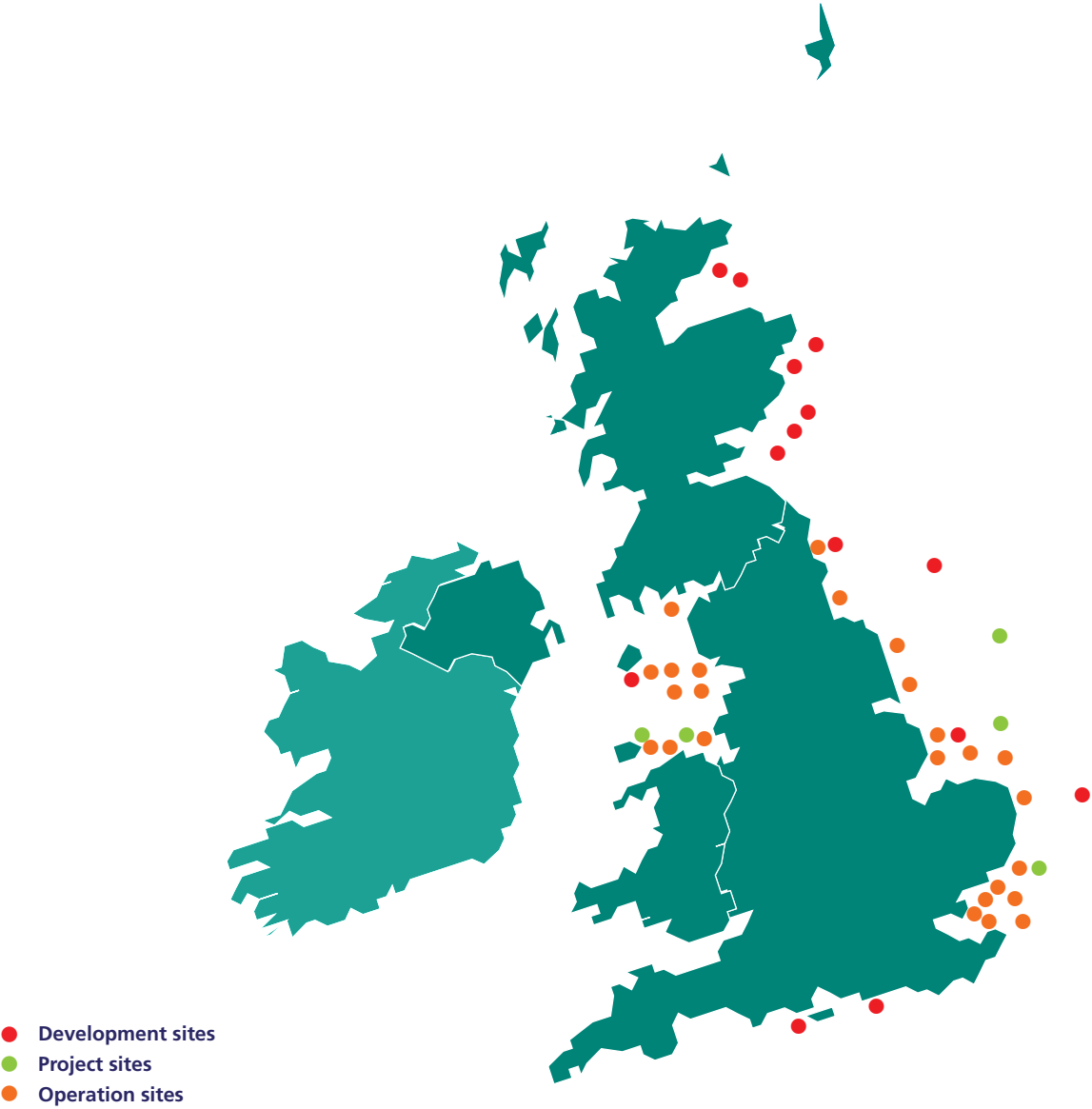


Figure 1: UK Offshore wind farm sites

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	Burbo Bank Extension	Beatrice
Beatrice Demo	Greater Gabbard	East Anglia	Galloper (Greater Gabbard Extension)	Inch Cape
Blyth	Gunfleet Sands II	Firth of Forth	Kentish Flats Extension	Neart na Gaoithe**
Burbo Bank	Gwynt Y Mor	Hornsea	Walney III	
Gunfleet Sands I	Humber Gateway	Moray Firth		
Lynn & Inner Dowsing	Lincs	Rampion		
Kentish Flats	London Array I	Navitus Bay*		
North Hoyle	London Array II			
Ormonde	Race Bank			
Rhyl Flats	Sheringham Shoal			
Robin Rigg	Thanet			
Scroby Sands	Triton Knoll			
Teesside	Walney I			
	Walney II			
	Westermest Rough			
	West of Duddon Sands			

*Consent was refused for this project in Q3 2015. No incident data were supplied from this period.

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

2015 highlights

2015: key facts and figures

Key facts		Work process	
790	reported incidents	157	incidents during marine operations * ²
0	fatalities	70	lifting operations incidents
28	total lost work day incidents	62	incidents occurred when operating plant and machinery
2	incidents reported under RIDDOR * ¹	Incident area	
604	incidents occurred on operational sites	303	incidents occurred onshore
179	incidents occurred on project sites	294	incidents occurred in the turbine region
6	incidents occurred on development sites	150	incidents occurred on vessels

*¹ One incident reported under a DO where there was the potential to cause personal injury
*² Marine operations comprise the following work processes: maritime operations, transfer by vessel, transit (vessel), vessel operations, vessel mobilisation.

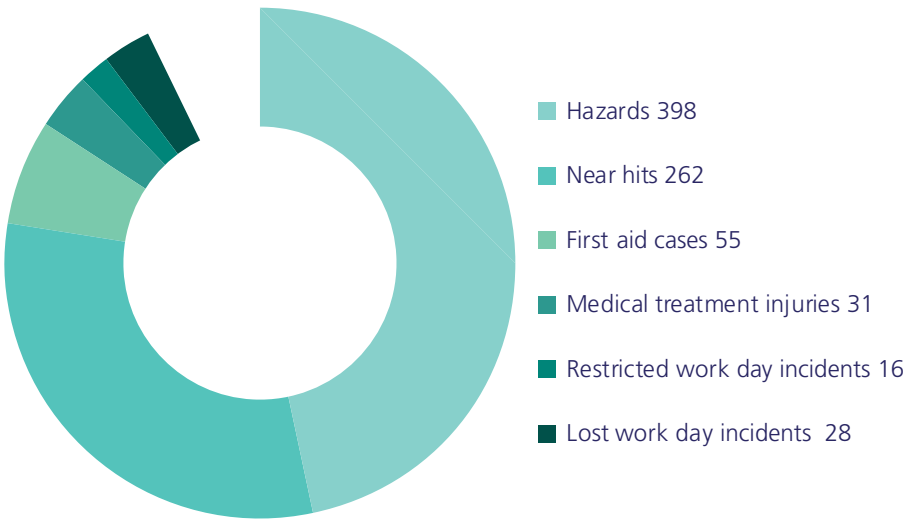


Figure 2: 2015 incident severity summary

UK safety statistics for 2015

Hours worked

	2015 (2014)	Relative to 2014
Hours worked*	9 450 000 (14 860 000)	- 36 %

Total recordable injury rate (TRIR)

The overall TRIR increased by 31 % from 6,05 in 2014 to 7,94 in 2015.

	2015 (2014)	Relative to 2014
Fatalities	0 (0)	No change
Lost work day incidents	28 (33)	- 15 %
Restricted work day incidents	16 (8)	+ 100 %
Medical treatment injuries	31 (49)	- 37 %
Total	75 (90)	- 17 %
Total recordable injury rate (TRIR)	7,94 (6,05)	+ 31 %

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

Lost time injury frequency (LTIF)

The overall LTIF increased by 34 % from 2,22 in 2014 to 2,96 in 2015.

	2015 (2014)	Relative to 2014
Fatalities	0 (0)	No change
Lost work day incidents	28 (33)	- 15 %
Total	28 (33)	- 15 %
Lost time injury frequency (LTIF)	2,96 (2,22)	+ 34 %

Lost time injury frequency (LTIF)

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

Due to an increase in 2015 TRIR and LTIF figures relative to 2014 the G9 carried out a further analysis of the incident data.

The analysis output showed no discernible trend of increased incidents reported when comparing the 2015 hours worked and project/operation site incident data to construction/commissioning phases (development to project; or project to operational). Further work will be undertaken in the G9 to establish the reasons for this increase.

* Hours worked rounded up to nearest 10 000.

Incident data summary – incident area

Areas where incidents occurred can be broadly categorised into five different categories (see Figure 3). Figures 4 – 8 show this breakdown in further detail.

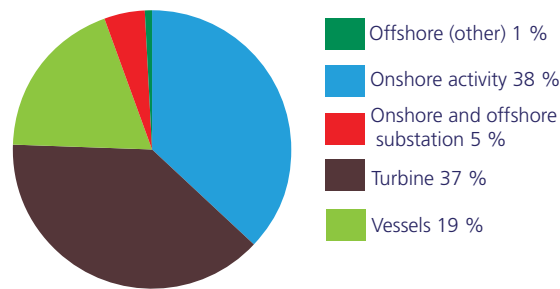


Figure 3: Incident area – summary

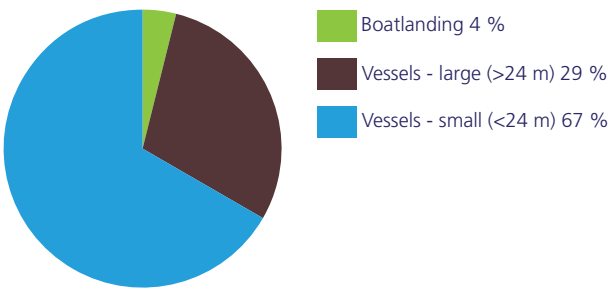


Figure 4: Incident area – vessels breakdown

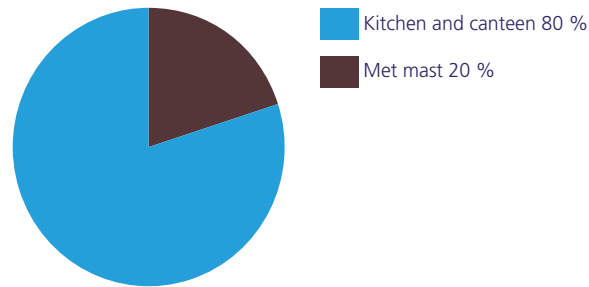


Figure 5: Incident area – offshore (other) breakdown

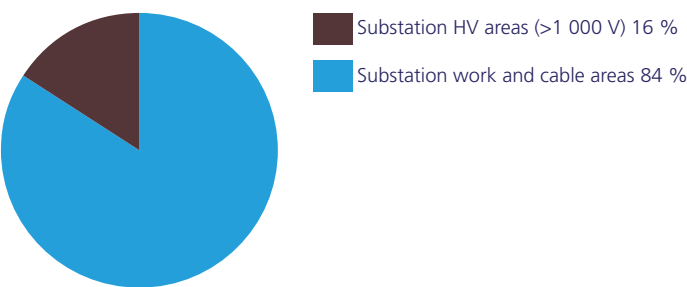


Figure 6: Incident area – onshore and offshore substation breakdown

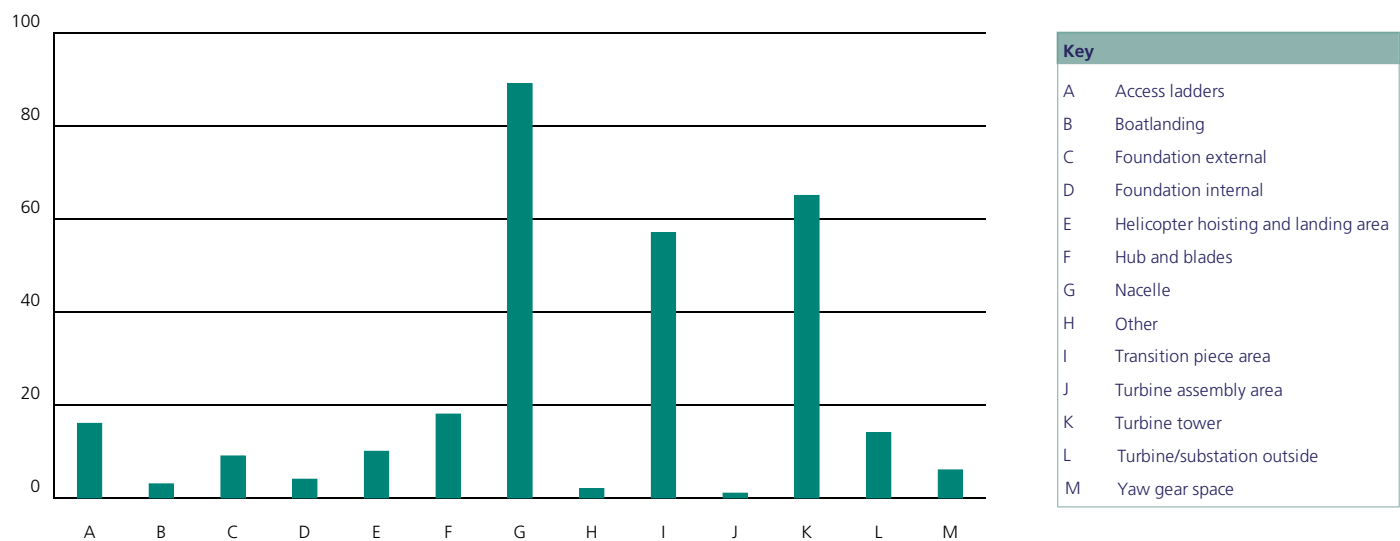


Figure 7: Incident area – turbine breakdown

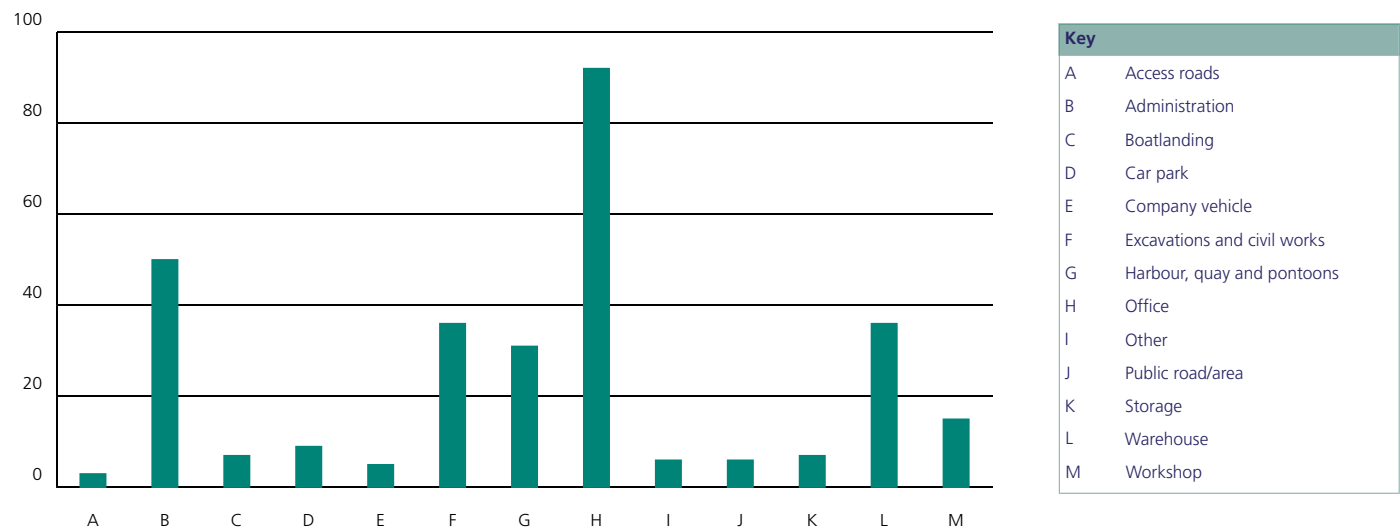


Figure 8: Incident area – onshore activity breakdown

Incident data summary – work process

There were 22 different work processes where incidents occurred during 2015 (see Figure 9). For further information on the number of hazards, near hits, first aid incidents, medical treatment injuries, restricted work day and lost work day incidents see Annex A.

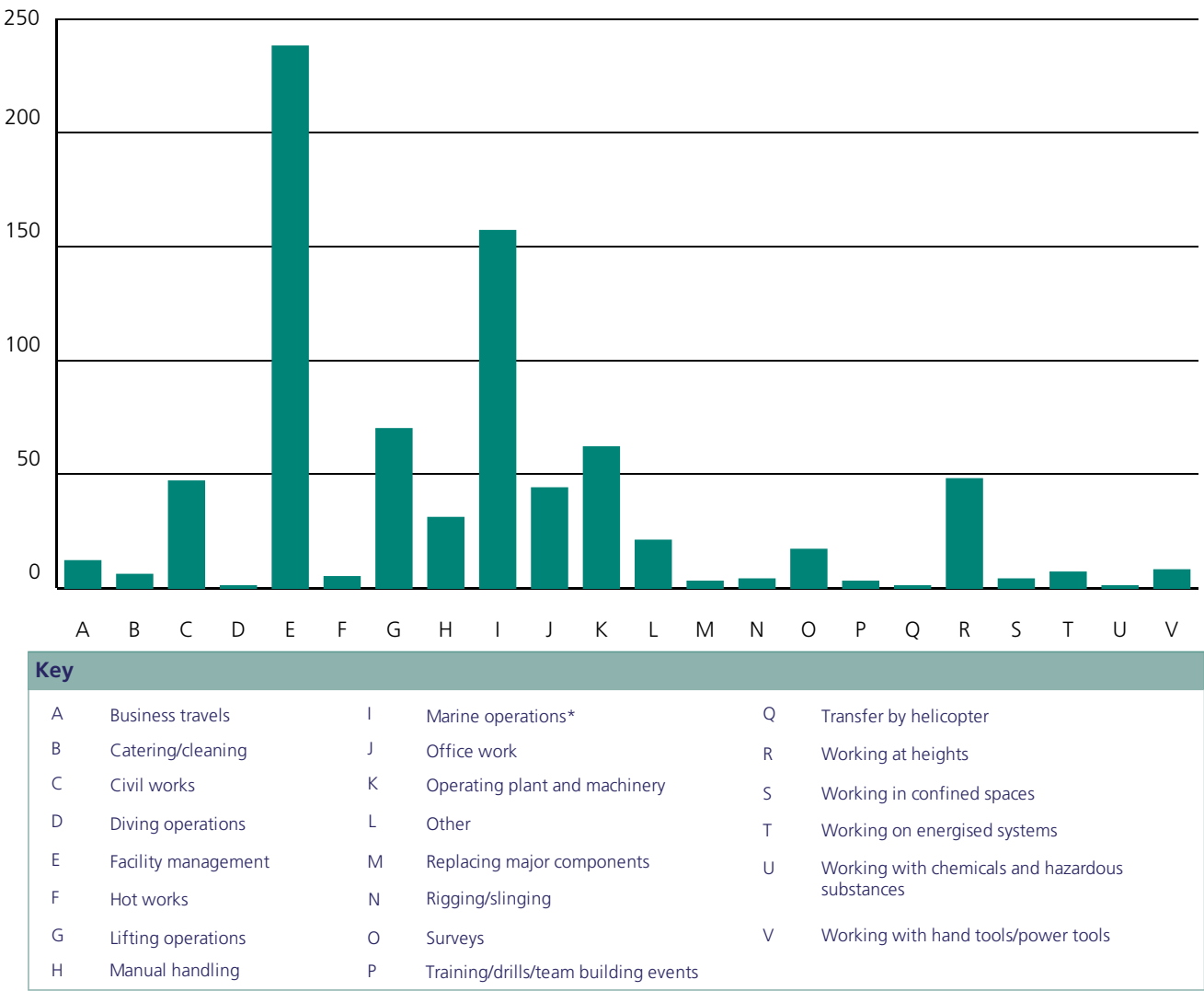


Figure 9: Work process – summary

* Marine operations comprise the following work processes: maritime operations, transfer by vessel, transit (vessel), vessel operations, vessel mobilisation. For further information on this breakdown see page 12.

Project and operation sites

Throughout 2015, incidents were classified as occurring in project, operation or development phase – these were defined as:

Project site: Stages of project (construction, commissioning).

Operation site: Site in operation producing power.

Development phase: Development phase of project.

Breakdown of the incident data by site classification is shown in Figures 10 and 11.

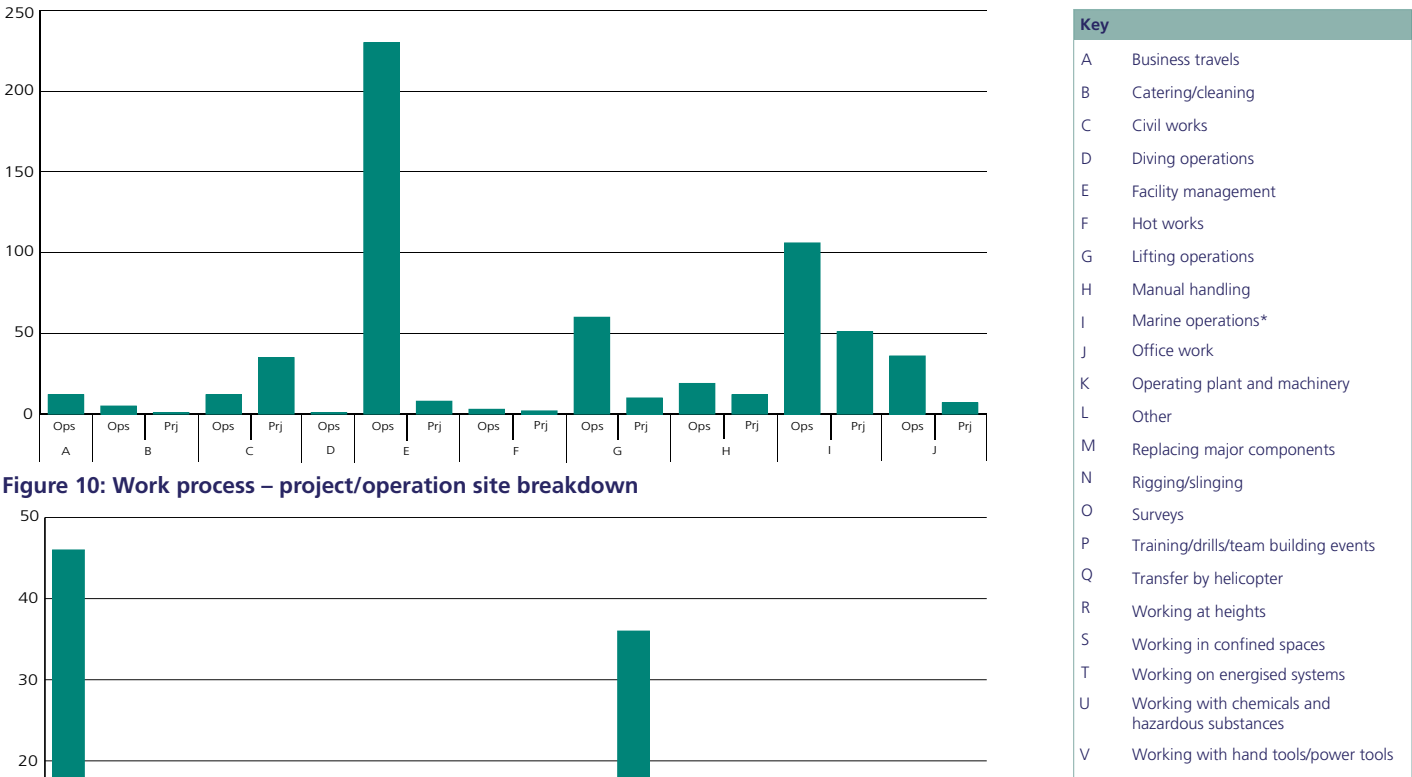


Figure 10: Work process – project/operation site breakdown

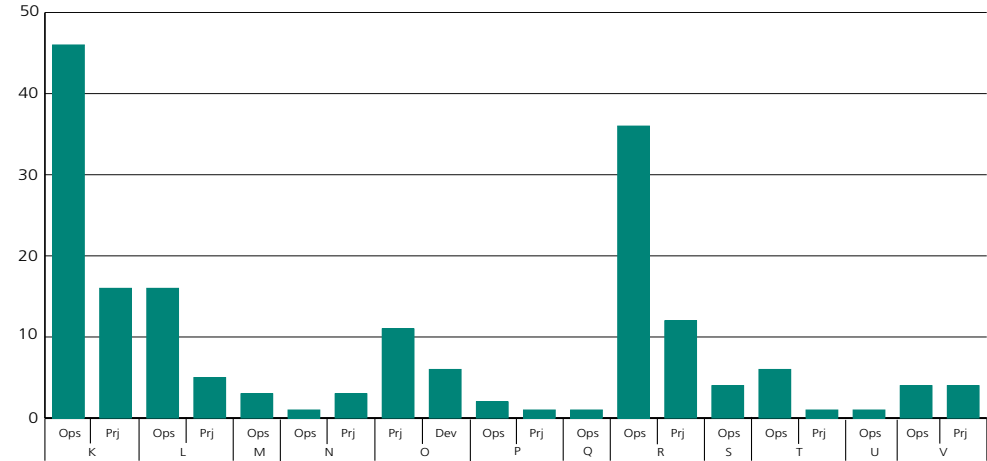


Figure 11: Work process – project/operation site breakdown

* Marine operations comprise the following work processes: maritime operations, transfer by vessel, transit (vessel), vessel operations, vessel mobilisation. For further information on this breakdown see page 12.

Lost work day incidents

Summary – breakdown by incident area and work process

In 2015, there were 28 lost work day incidents reported, including one which was reported under RIDDOR. 39 % (11) of lost work day incidents occurred during onshore activity and 32 % (10) on the turbine. The highest number of lost work day incidents occurred during manual handling (6: 21 %), followed by marine operations and plant and machinery operations (5: 18 %) (see Figures 12 and 13).

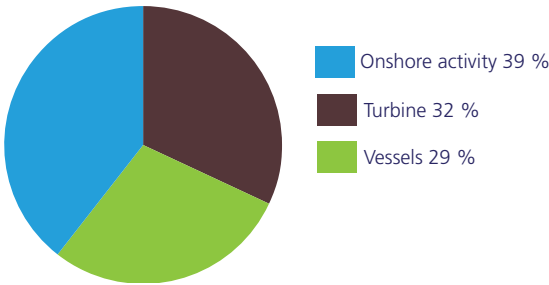


Figure 12: Lost work day – incident area breakdown

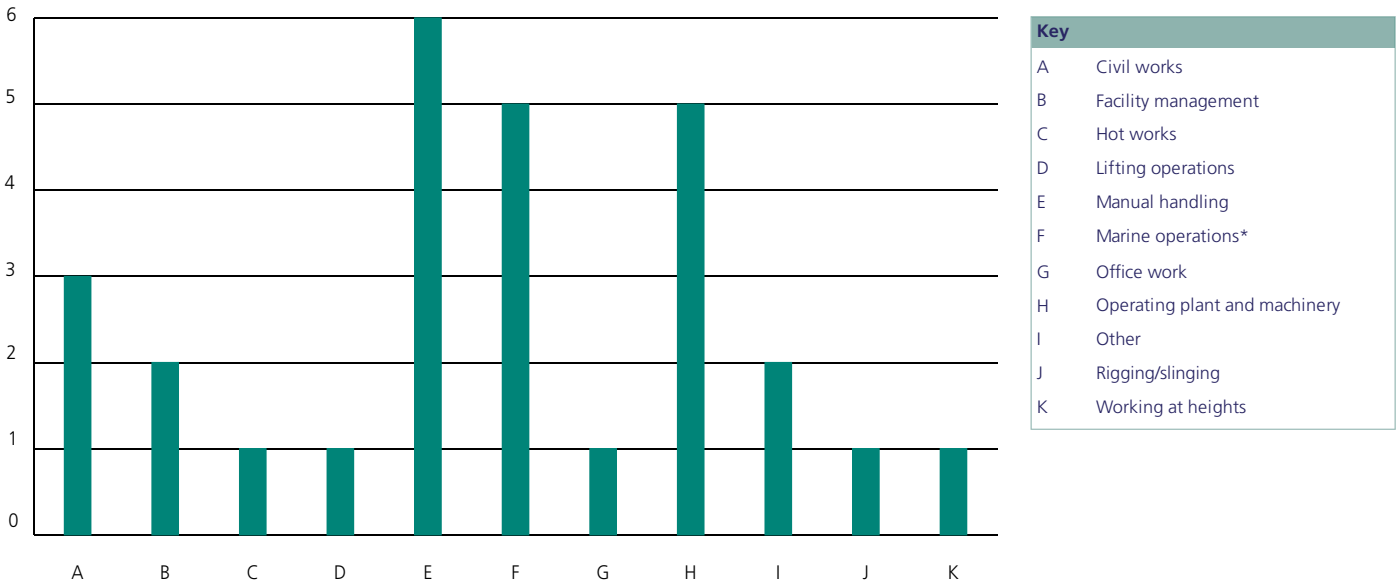


Figure 13: Lost work day – work process breakdown

* Marine operations comprise the following work processes: maritime operations, transfer by vessel, vessel operations, vessel mobilisation. For further information on this breakdown see page 12.

Top three work process risk analysis: Marine operations

Summary – breakdown by incident area, consequence and work process

In 2015, 157 incidents occurred during marine operations, with 106 occurring on operational sites and 51 on project sites.

The majority of marine operations incidents occurred on the vessels themselves (63 %). 50 % of marine operations occurred during maritime operations, 24 % during vessel operations and 11 % during transfer by vessel.

Of the total number of incidents recorded, 46 % were classified as near hits and 43 % as hazards. There was a total of five incidents resulting in lost work days (see Figures 14, 15, and 16).

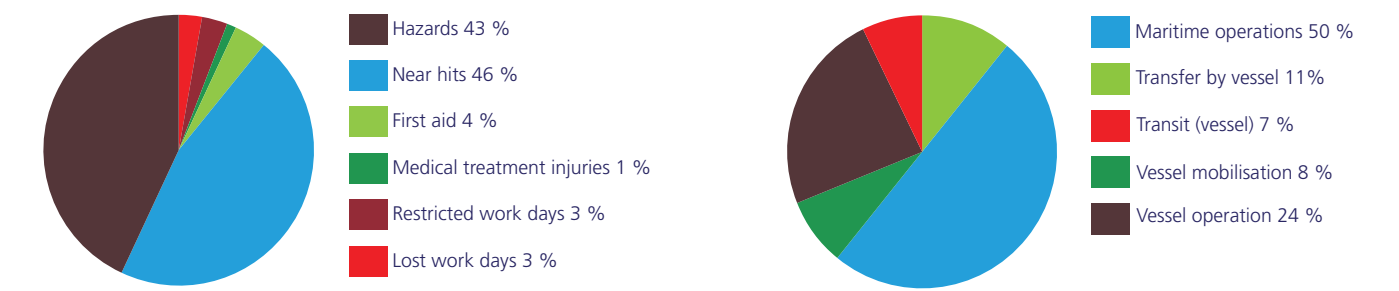


Figure 14: Marine operations – incident consequence

Figure 15: Marine operations – work process breakdown

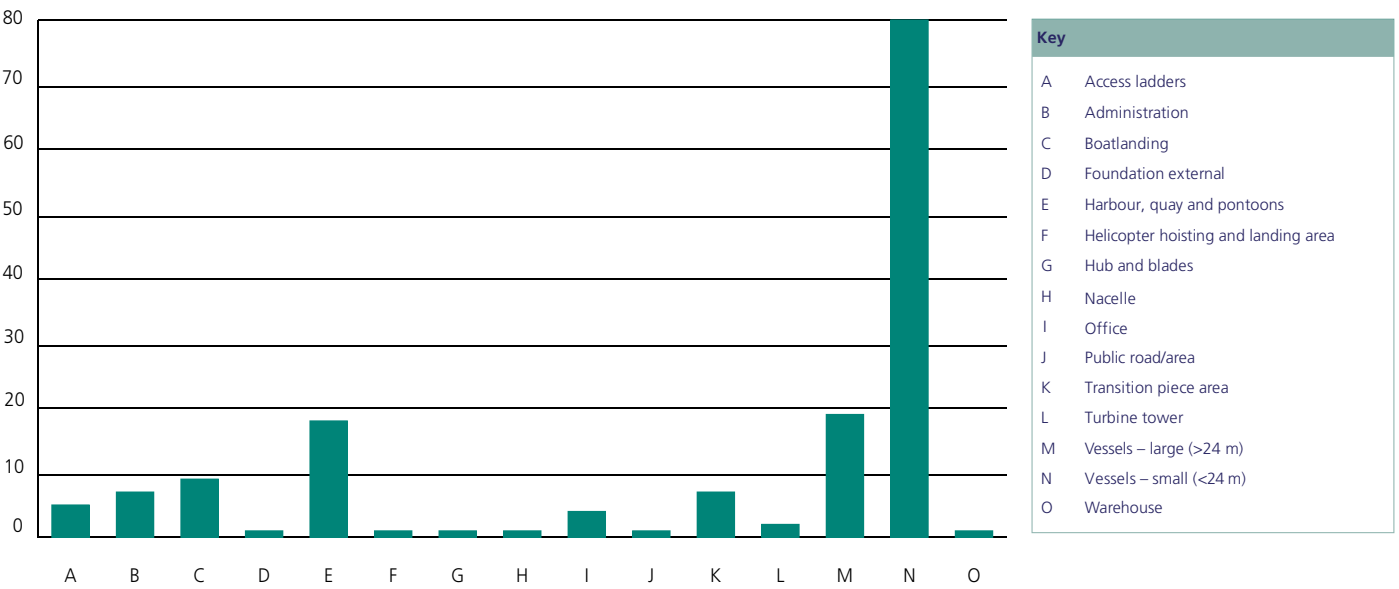


Figure 16: Marine operations – incident area breakdown

Lifting operations

Summary – breakdown by incident area and consequence

In 2015, 70 incidents occurred during lifting operations. 60 incidents occurred on operational sites and 10 incidents occurred on project sites. 29 % of all incidents occurred on the transition piece area, 21 % on the nacelle and 13 % occurred on vessels. There was one lost work day incident which occurred during lifting operations activities and 58 % of incidents reported were classified as near hits (see Figures 17 and 18).

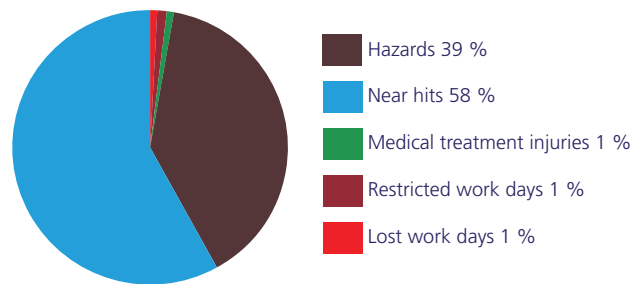


Figure 17: Lifting operations – incident consequence

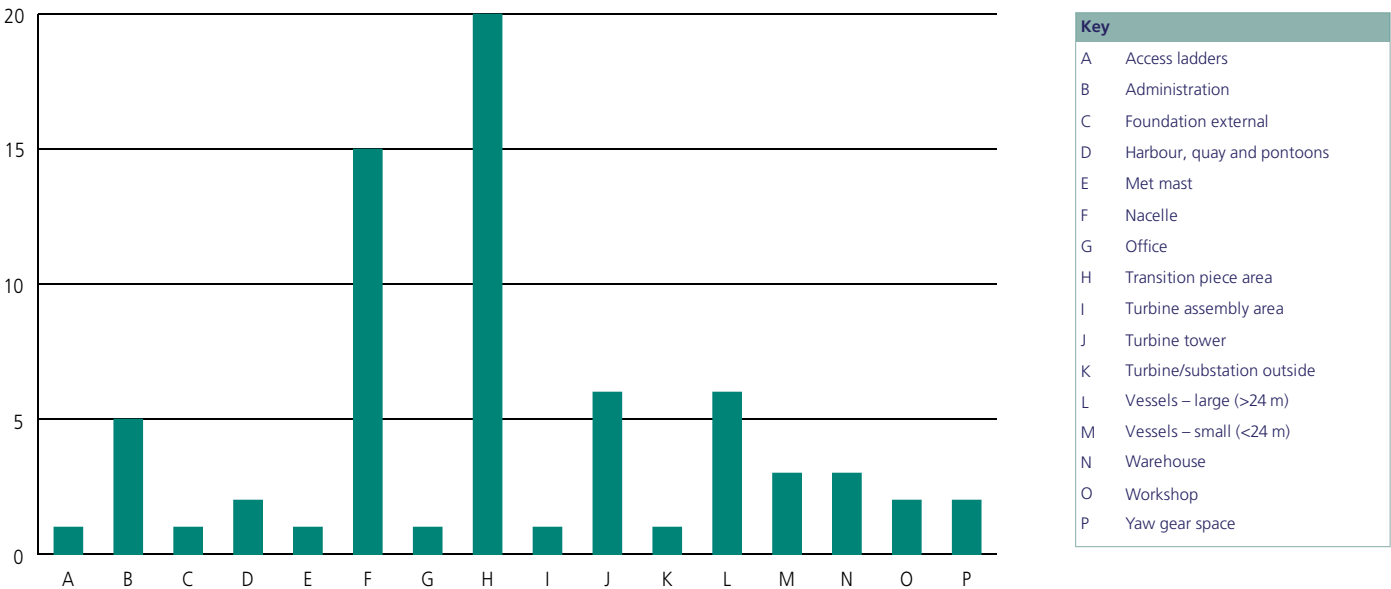


Figure 18: Lifting operations – incident area breakdown

Operating plant and machinery

Summary – breakdown by incident area and consequence

In 2015, there were 62 incidents which occurred during plant and machinery operation. The majority of these incidents took place on operational sites (41 incidents) with the remaining 16 incidents occurring on project sites.

23 % of all plant and machinery operation incidents occurred on the turbine tower, 21 % on the nacelle and 15 % on the hub and blades. 52 % of incidents reported were classified as near hits and there were five lost work day incidents (see Figures 19 and 20).

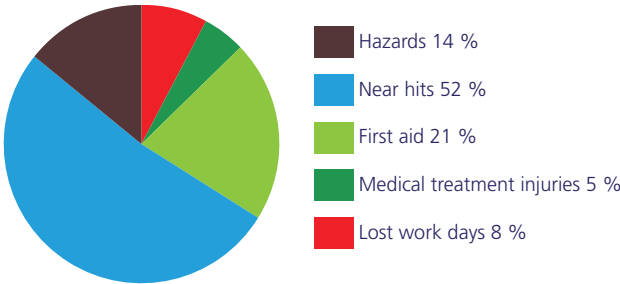


Figure 19: Operating plant and machinery – incident consequence

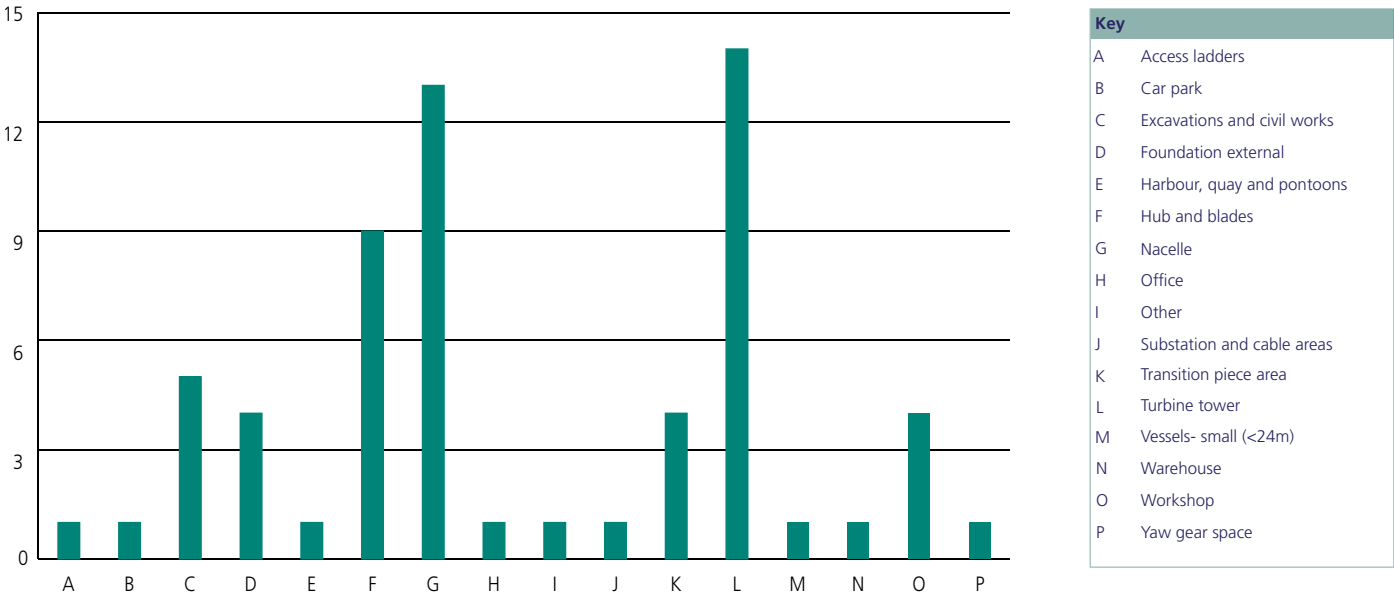


Figure 20: Operating plant and machinery – incident area breakdown

Dropped object incidents

Summary – breakdown by incident area, consequence and work process

In 2015, there were 45 dropped object incidents. 32 incidents occurred on operation sites, 11 incidents on project sites and two incidents during the development phase.

53 % of all dropped object incidents occurred on the turbine, 25 % during onshore activity and 18 % on vessels. 42 % of dropped object incidents occurred during lifting operations and 9 % during plant and machinery operation, office work and surveys.

There were four lost work day incidents as a result of dropped object incidents and 76 % of dropped object incidents were classified as near hits (see Figures 21, 22 and 23).

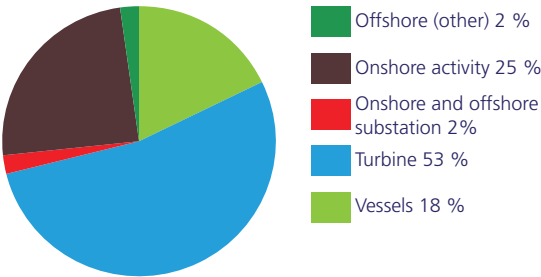


Figure 21: Dropped object – incident area summary

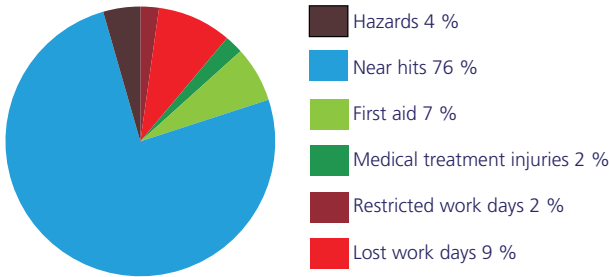


Figure 22: Dropped object – incident consequence

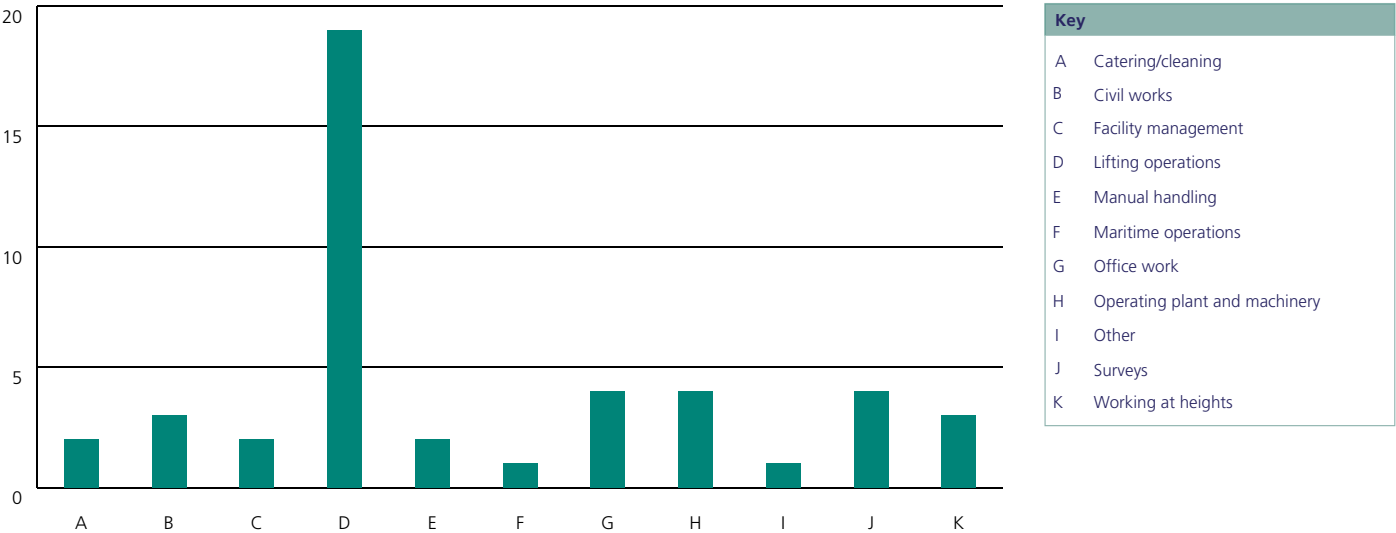


Figure 23: Dropped object – work process breakdown

High potential incidents

Summary – breakdown by incident area, consequence and work process

In 2015, there were 181 high potential incidents reported. 123 incidents occurred at operation sites, 57 incidents on project sites and one incident during the development phase.

41 % of the high potential incidents occurred on the turbine, 34 % during onshore activity and 19 % on vessels. The work process breakdown for high potential incidents was reported as 17 % occurring during marine operations*, followed by 16 % during lifting operations.

There were six high potential incidents which resulted in lost work days and 54 % of all high potential incidents reported were classified as hazards (see Figures 24, 25 and 26).

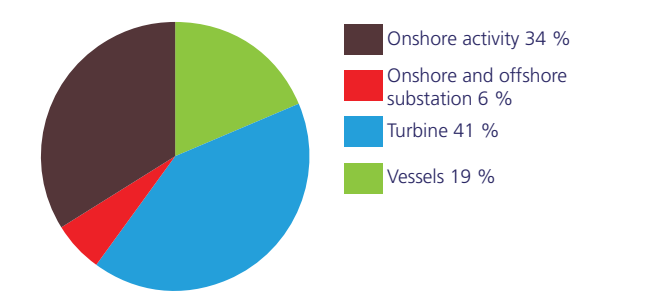


Figure 24: High potential – incident area summary

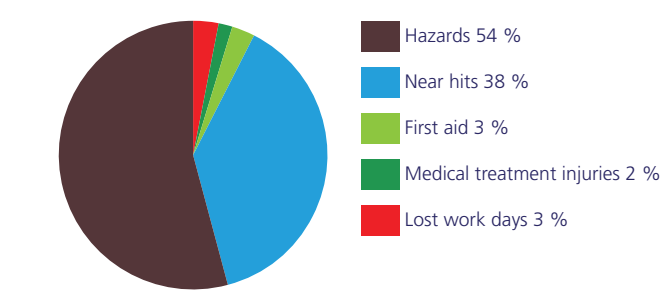


Figure 25: High potential – incident consequence

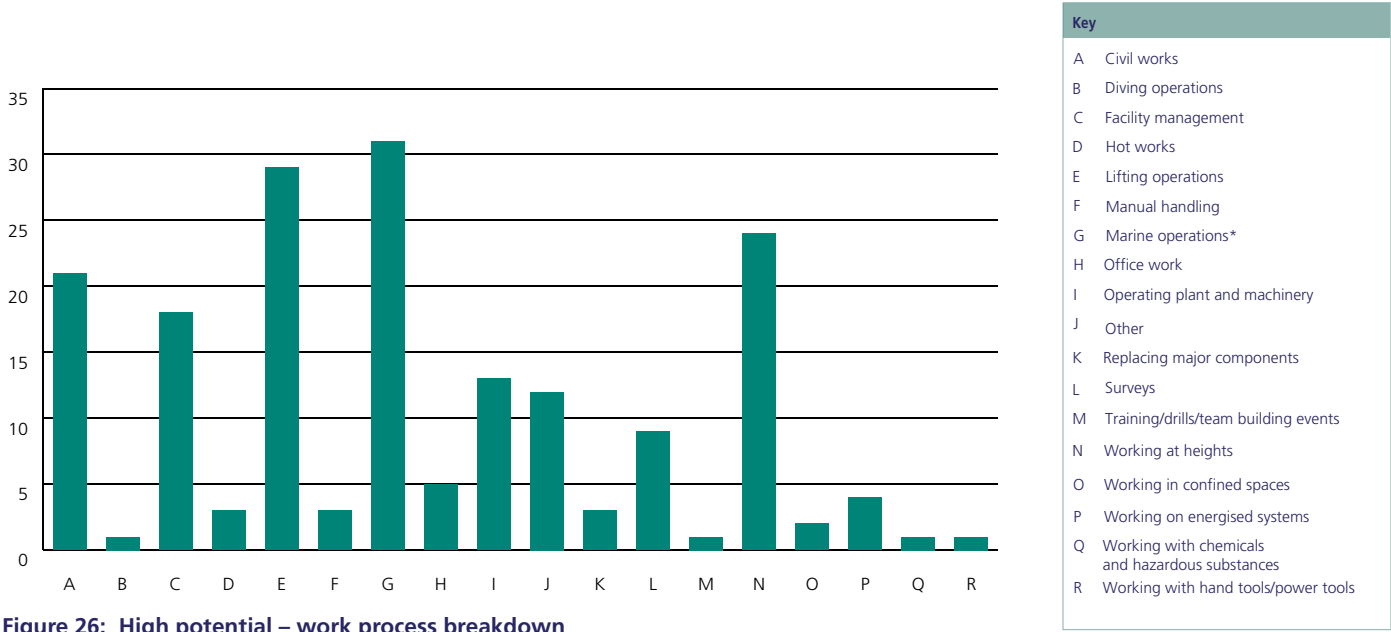


Figure 26: High potential – work process breakdown

* Marine operations comprise the following work processes: maritime operations, transfer by vessel, vessel operations, vessel mobilisation. For further information on this breakdown see page 12.

Emergency Response or Medical Evacuation (ERME) incidents

Summary – breakdown by incident area, consequence and work process

In 2015 there were 19 emergency response or medical evacuation (ERME) incidents, 15 incidents on operation sites and four incidents on project sites.

42 % of ERME incidents reported occurred on turbines and 37 % during onshore activity. 37 % of ERME incidents occurred during plant and machinery operation and 21 % during facility management activity.

There were eight lost work day incidents resulting from ERME incidents (see Figures 27, 28 and 29).

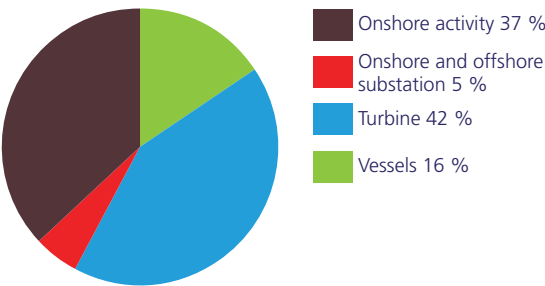


Figure 27: ERME – incident area summary

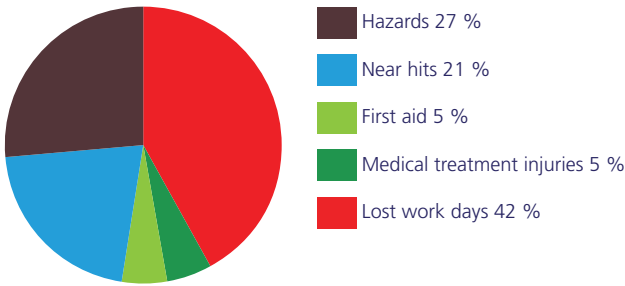


Figure 28: ERME – incident consequence

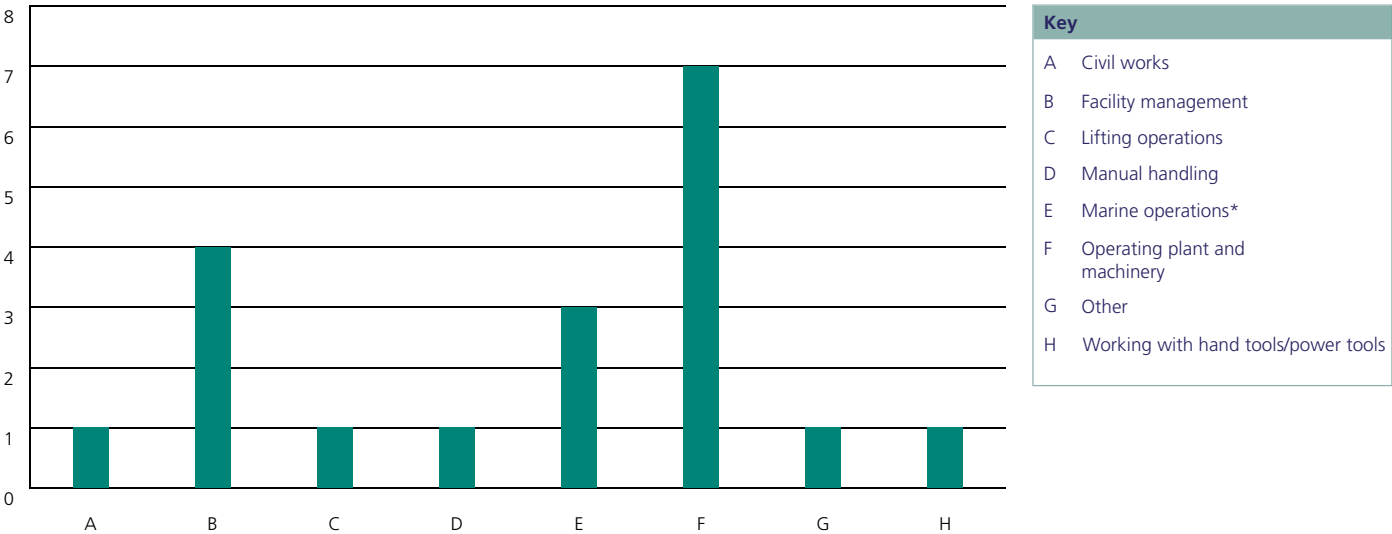


Figure 29: ERME – work process breakdown

* Marine operations comprise the following work processes: transit (vessel), vessel operations, vessel mobilisation. For further information on this breakdown see page 12.

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	Administration	Business travels	No	First aid	No	No
Operation site	Boatlanding	Business travels	No	Near hits	No	No
Operation site	Car park	Business travels	No	Hazards	No	No
Operation site	Car park	Business travels	No	Hazards	No	No
Operation site	Car park	Business travels	No	Hazards	No	No
Operation site	Car park	Business travels	No	Near hits	No	No
Operation site	Car park	Business travels	No	Near hits	No	No
Operation site	Company vehicle	Business travels	No	First aid	No	No
Operation site	Company vehicle	Business travels	No	Hazards	No	No
Operation site	Company vehicle	Business travels	No	Hazards	No	No
Operation site	Company vehicle	Business travels	No	Near hits	No	No
Operation 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	Kitchen and canteen	Catering/cleaning	Yes	First aid	No	No
Operation site	Kitchen and canteen	Catering/cleaning	No	Near hits	No	No
Operation site	Kitchen and canteen	Catering/cleaning	No	Near hits	No	No
Operation site	Office	Catering/cleaning	Yes	First aid	No	No
Operation site	Office	Catering/cleaning	No	First aid	No	No
Operation site	Office	Catering/cleaning	No	Medical treatment injuries	No	No

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Access roads	Civil works	No	Hazards	Yes	No
Operation site	Boatlanding	Civil works	No	Near hits	No	No
Project site	Excavations and civil works	Civil works	No	First aid	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	Lost work day	No	Yes
Project site	Excavations and civil works	Civil works	Yes	Lost work day	Yes	No
Project site	Excavations and civil works	Civil works	Yes	Lost work day	No	No
Project site	Excavations and civil works	Civil works	No	Medical treatment injuries	No	No
Project site	Excavations and civil works	Civil works	No	Medical treatment injuries	No	No
Project site	Excavations and civil works	Civil works	No	Near hits	Yes	No
Project site	Excavations and civil works	Civil works	No	Near hits	No	No
Operation site	Excavations and civil works	Civil works	No	Near hits	No	No
Project site	Excavations and civil works	Civil works	No	Near hits	Yes	No
Project site	Excavations and civil works	Civil works	No	Near hits	Yes	No
Project site	Excavations and civil works	Civil works	No	Restricted work day	No	No
Project site	Foundation external	Civil works	No	Near hits	Yes	No
Operation site	Harbour, quay and pontoons	Civil works	No	Near hits	No	No
Project site	Nacelle	Civil works	No	Near hits	No	No
Project site	Other	Civil works	No	Hazards	Yes	No
Project site	Public road/area	Civil works	No	Near hits	Yes	No
Operation site	Substation work and cable areas	Civil works	No	Near hits	Yes	No
Project site	Substation work and cable areas	Civil works	Yes	Near hits	No	No
Project site	Substation work and cable areas	Civil works	No	Near hits	Yes	No
Project site	Turbine tower	Civil works	No	Near hits	No	No
Project site	Turbine tower	Civil works	No	Near hits	No	No
Operation site	Turbine tower	Civil works	No	Near hits	No	No
Project site	Turbine tower	Civil works	No	Near hits	No	No
Project site	Turbine tower	Civil works	No	Near hits	No	No
Operation site	Turbine tower	Civil works	No	Near hits	No	No
Operation site	Turbine tower	Civil works	No	Near hits	No	No
Project site	Turbine tower	Civil works	No	Near hits	No	No
Operation site	Turbine tower	Civil works	No	Near hits	No	No
Operation site	Turbine tower	Civil works	No	Near hits	No	No
Operation site	Turbine tower	Civil works	No	Near hits	No	No
Operation site	Turbine tower	Civil works	No	Near hits	No	No
Project site	Warehouse	Civil works	No	Hazards	Yes	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	Vessels - large (>24 m)	Diving operations	No	Hazards	Yes	No

Table A5: Incident data reported - Facility management

[illegible]

[illegible]

Table A5: Incident data reported - Facility management (continued)

[illegible]

[illegible]

Table A5: Incident data reported - Facility management (continued)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Turbine/substation outside	Facility management	No	Hazards	No	No
Operation site	Turbine/substation outside	Facility management	No	Hazards	No	No
Operation site	Turbine/substation outside	Facility management	No	Hazards	No	No
Operation site	Turbine/substation outside	Facility management	No	Hazards	No	No
Operation site	Turbine/substation outside	Facility management	No	Hazards	No	No
Operation site	Turbine/substation outside	Facility management	No	Hazards	No	No
Operation site	Turbine/substation outside	Facility management	No	Hazards	No	No
Project site	Vessels - large (>24 m)	Facility management	No	First aid	No	No
Operation site	Vessels - large (>24 m)	Facility management	No	Medical treatment injuries	No	No
Operation site	Vessels - small (<24 m)	Facility management	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Facility management	No	Near hits	No	No
Operation site	Warehouse	Facility management	No	First aid	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Operation site	Warehouse	Facility management	No	Hazards	No	No
Project site	Workshop	Facility management	No	Hazards	No	No
Project site	Workshop	Facility management	No	Hazards	No	No
Project site	Workshop	Facility management	No	Near hits	No	No

Table A6: Incident data reported - Hot works

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Other	Hot works	No	Hazards	Yes	No
Operation site	Turbine tower	Hot works	No	Lost work day	No	No
Operation site	Turbine tower	Hot works	No	Near hits	Yes	No
Project site	Warehouse	Hot works	No	First aid	Yes	No
Project site	Warehouse	Hot works	No	Hazards	No	No

Table A7: Incident data reported - Lifting operations

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Access ladders	Lifting operations	No	Hazards	No	No
Operation site	Administration	Lifting operations	No	Hazards	No	No
Operation site	Administration	Lifting operations	No	Hazards	No	No
Operation site	Administration	Lifting operations	No	Hazards	No	No
Operation site	Administration	Lifting operations	No	Hazards	No	No
Operation site	Administration	Lifting operations	No	Hazards	No	No
Project site	Foundation external	Lifting operations	No	Near hits	No	No
Operation site	Harbour, quay and pontoons	Lifting operations	Yes	Near hits	Yes	No
Operation site	Harbour, quay and pontoons	Lifting operations	No	Near hits	Yes	No
Operation site	Met mast	Lifting operations	No	Near hits	No	No
Operation site	Nacelle	Lifting operations	No	Hazards	Yes	No
Operation site	Nacelle	Lifting operations	No	Hazards	Yes	Yes
Operation site	Nacelle	Lifting operations	No	Hazards	No	No
Operation site	Nacelle	Lifting operations	No	Hazards	Yes	No
Operation site	Nacelle	Lifting operations	No	Hazards	Yes	No
Operation site	Nacelle	Lifting operations	No	Hazards	No	No
Operation site	Nacelle	Lifting operations	Yes	Near hits	Yes	No
Operation site	Nacelle	Lifting operations	Yes	Near hits	No	No
Operation site	Nacelle	Lifting operations	No	Near hits	No	No
Project site	Nacelle	Lifting operations	No	Near hits	Yes	No
Operation site	Nacelle	Lifting operations	No	Near hits	Yes	No
Operation site	Nacelle	Lifting operations	No	Near hits	Yes	No
Operation site	Nacelle	Lifting operations	No	Near hits	Yes	No
Operation site	Nacelle	Lifting operations	No	Near hits	No	No
Operation site	Nacelle	Lifting operations	No	Restricted work day	No	No
Operation site	Office	Lifting operations	No	Near hits	No	No
Operation site	Transition piece area	Lifting operations	Yes	Hazards	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	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Hazards	No	No
Operation site	Transition piece area	Lifting operations	No	Medical treatment injuries	No	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	Yes	No
Operation site	Transition piece area	Lifting operations	No	Near hits	Yes	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	No	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	No	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	No	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	Yes	No
Operation site	Transition piece area	Lifting operations	No	Near hits	No	No
Project site	Transition piece area	Lifting operations	No	Near hits	No	No
Operation site	Transition piece area	Lifting operations	No	Near hits	No	No
Project site	Transition piece area	Lifting operations	Yes	Near hits	No	No
Operation site	Transition piece area	Lifting operations	Yes	Near hits	No	No
Operation site	Turbine assembly area	Lifting operations	No	Near hits	No	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	Near hits	Yes	No
Operation site	Turbine tower	Lifting operations	No	Near hits	No	No
Operation site	Turbine tower	Lifting operations	Yes	Near hits	No	No
Operation site	Turbine tower	Lifting operations	No	Near hits	Yes	No
Operation site	Turbine/substation outside	Lifting operations	No	Hazards	No	No

Table A7: Incident data reported - Lifting operations (continued)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Vessels - large (>24 m)	Lifting operations	No	Hazards	Yes	No
Operation site	Vessels - large (>24 m)	Lifting operations	No	Hazards	Yes	No
Operation site	Vessels - large (>24 m)	Lifting operations	No	Near hits	Yes	No
Operation site	Vessels - large (>24 m)	Lifting operations	Yes	Near hits	Yes	No
Project site	Vessels - large (>24 m)	Lifting operations	No	Near hits	No	No
Project site	Vessels - large (>24 m)	Lifting operations	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Lifting operations	Yes	Hazards	Yes	No
Operation site	Vessels - small (<24 m)	Lifting operations	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Lifting operations	Yes	Near hits	Yes	No
Operation site	Warehouse	Lifting operations	No	Hazards	No	No
Operation site	Warehouse	Lifting operations	No	Hazards	Yes	No
Operation site	Warehouse	Lifting operations	No	Near hits	No	No
Project site	Workshop	Lifting operations	No	Hazards	Yes	No
Project site	Workshop	Lifting operations	No	Near hits	Yes	No
Operation site	Yaw gear space	Lifting operations	No	Lost work day	No	No
Operation site	Yaw gear space	Lifting operations	Yes	Near hits	No	No

Table A8: Incident data reported - Manual handling

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Boatlanding	Manual handling	No	Hazards	No	No
Project site	Excavations and civil works	Manual handling	No	First aid	No	No
Project site	Excavations and civil works	Manual handling	No	Medical treatment injuries	No	No
Project site	Harbour, quay and pontoons	Manual handling	No	First aid	No	No
Operation site	Harbour, quay and pontoons	Manual handling	No	First aid	No	No
Project site	Harbour, quay and pontoons	Manual handling	No	Lost work day	Yes	Yes
Operation site	Hub and blades	Manual handling	No	First aid	No	No
Operation site	Hub and blades	Manual handling	No	Restricted work day	No	No
Operation site	Nacelle	Manual handling	No	First aid	No	No
Project site	Nacelle	Manual handling	No	Medical treatment injuries	Yes	No
Operation site	Nacelle	Manual handling	Yes	Restricted work day	No	No
Operation site	Nacelle	Manual handling	No	Restricted work day	No	No
Project site	Storage	Manual handling	No	First aid	No	No
Project site	Transition piece area	Manual handling	No	Near hits	No	No
Project site	Vessels - large (>24 m)	Manual handling	No	Hazards	Yes	No
Operation site	Vessels - small (<24 m)	Manual handling	No	First aid	No	No
Operation site	Vessels - small (<24 m)	Manual handling	No	Lost work day	No	No
Operation site	Vessels - small (<24 m)	Manual handling	No	Lost work day	No	No
Operation site	Vessels - small (<24 m)	Manual handling	No	Lost work day	No	No
Operation site	Vessels - small (<24 m)	Manual handling	No	Medical Treatment Injuries	No	No
Operation site	Warehouse	Manual handling	No	First aid	No	No
Project site	Warehouse	Manual handling	No	First aid	No	No
Operation site	Warehouse	Manual handling	No	Hazards	No	No
Operation site	Warehouse	Manual handling	No	Lost work day	No	No
Operation site	Warehouse	Manual handling	Yes	Lost work day	No	No
Operation site	Warehouse	Manual handling	No	Near hits	No	No
Operation site	Warehouse	Manual handling	No	Restricted work day	No	No
Operation site	Warehouse	Manual handling	No	Restricted work day	No	No
Project site	Workshop	Manual handling	No	First aid	No	No
Project site	Workshop	Manual handling	No	First aid	No	No
Project site	Workshop	Manual handling	No	Medical treatment injuries	No	No

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Table A9: Incident data reported - Maritime operations (continued)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Vessels - small (<24 m)	Maritime operations	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Lost work day	No	No
Project site	Vessels - small (<24 m)	Maritime operations	No	Near hits	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Near hits	Yes	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Near hits	Yes	No
Project site	Vessels - small (<24 m)	Maritime operations	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Maritime operations	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Maritime operations	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Maritime operations	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Maritime operations	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Maritime operations	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Maritime operations	No	Near hits	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Near Hits	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Hazards	Yes	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Near Hits	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Near Hits	No	No
Operation site	Vessels - small (<24 m)	Maritime operations	No	Restricted work day	No	No
Operation site	Warehouse	Maritime operations	No	Hazards	No	No

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Project site	Administration	Office work	No	Hazards	Yes	No
Operation site	Administration	Office work	No	Hazards	Yes	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	No	Hazards	No	No
Operation site	Administration	Office work	Yes	Near hits	No	No
Operation site	Car park	Office work	No	Near hits	No	No
Operation site	Company vehicle	Office work	No	Medical treatment injuries	Yes	No
Project site	Kitchen and canteen	Office work	No	Near hits	No	No
Operation site	Office	Office work	No	First aid	No	No
Operation site	Office	Office work	No	Hazards	No	No
Operation site	Office	Office work	No	Hazards	No	No
Operation site	Office	Office work	No	Hazards	No	No
Operation site	Office	Office work	No	Hazards	No	No
Project site	Office	Office work	No	Hazards	Yes	No
Other	Office	Office work	No	Lost work day	No	No
Operation site	Office	Office work	Yes	Near hits	Yes	No
Project site	Office	Office work	No	Near hits	No	No
Project site	Office	Office work	No	Near hits	No	No
Project site	Office	Office work	No	Near hits	No	No
Operation site	Office	Office work	Yes	Near hits	No	No
Operation site	Office	Office work	No	Near hits	No	No
Operation site	Office	Office work	No	Near hits	No	No
Project site	Other	Office work	No	Medical treatment injuries	No	No
Operation site	Substation work and cable areas	Office work	No	Hazards	No	No
Operation site	Warehouse	Office work	No	First aid	No	No
Operation site	Warehouse	Office work	No	Hazards	No	No
Operation site	Warehouse	Office work	No	Hazards	No	No
Operation site	Workshop	Office work	Yes	Near hits	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?
Operation site	Access ladders	Operating plant and machinery	No	Hazards	No	No
Operation site	Car park	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	Excavations and civil works	Operating plant and machinery	No	Near hits	No	No
Operation site	Excavations and civil works	Operating plant and machinery	No	Near hits	Yes	No
Project site	Excavations and civil works	Operating plant and machinery	No	Near hits	Yes	No
Operation site	Foundation external	Operating plant and machinery	No	Near hits	No	No
Operation site	Foundation external	Operating plant and machinery	No	Near hits	No	No
Operation site	Foundation external	Operating plant and machinery	No	Near hits	No	No
Operation site	Foundation external	Operating plant and machinery	No	Near hits	No	No
Operation site	Harbour, quay and pontoons	Operating plant and machinery	No	Near hits	Yes	No
Operation site	Hub and blades	Operating plant and machinery	Yes	First aid	Yes	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	First aid	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	First aid	No	No
Operation site	Hub and blades	Operating plant and machinery	No	Near hits	No	No
Project site	Hub and blades	Operating plant and machinery	No	Near hits	No	No
Operation site	Hub and blades	Operating plant and machinery	Yes	Near hits	Yes	Yes
Operation site	Nacelle	Operating plant and machinery	No	First aid	No	No
Operation site	Nacelle	Operating plant and machinery	No	Lost work day	No	Yes
Operation site	Nacelle	Operating plant and machinery	Yes	Lost work day	No	Yes
Operation site	Nacelle	Operating plant and machinery	No	Lost work day	No	No
Operation site	Nacelle	Operating plant and machinery	No	Lost work day	Yes	Yes
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	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	Near hits	No	No
Operation site	Nacelle	Operating plant and machinery	No	Near hits	No	No
Operation site	Nacelle	Operating plant and machinery	Yes	Near hits	No	No
Operation site	Nacelle	Operating plant and machinery	No	Near hits	No	No
Operation site	Nacelle	Operating plant and machinery	No	Near hits	Yes	Yes
Operation site	Office	Operating plant and machinery	No	Near hits	No	Yes
Project site	Other	Operating plant and machinery	No	Hazards	Yes	No
Operation site	Substation work and cable areas	Operating plant and machinery	No	Hazards	Yes	No
Project site	Transition piece area	Operating plant and machinery	No	Near hits	No	No
Project site	Transition piece area	Operating plant and machinery	No	Near hits	No	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
Project site	Turbine tower	Operating plant and machinery	No	First aid	No	No
Operation site	Turbine tower	Operating plant and machinery	No	First aid	No	No
Operation site	Turbine tower	Operating plant and machinery	No	First aid	No	No
Project site	Turbine tower	Operating plant and machinery	No	Lost work day	No	Yes
Project site	Turbine tower	Operating plant and machinery	No	Medical treatment injuries	No	No
Operation site	Turbine tower	Operating plant and machinery	No	Medical treatment injuries	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	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	Yes	No
Project site	Turbine tower	Operating plant and machinery	No	Near hits	No	No
Project site	Turbine tower	Operating plant and machinery	No	Near hits	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	Vessels - small (<24 m)	Operating plant and machinery	No	Near Hits	No	No
Operation site	Warehouse	Operating plant and machinery	No	Hazards	Yes	No
Project site	Workshop	Operating plant and machinery	No	First aid	No	No
Project site	Workshop	Operating plant and machinery	No	First aid	No	No
Project site	Workshop	Operating plant and machinery	No	First aid	No	No
Operation site	Workshop	Operating plant and machinery	No	Hazards	No	No
Operation site	Yaw gear space	Operating plant and machinery	No	Near hits	No	No

Table A12: Incident data reported - Other

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Administration	Other	No	Hazards	Yes	No
Project site	Foundation external	Other	No	Near hits	No	No
Operation site	Harbour, quay and pontoons	Other	No	Lost work day	No	No
Operation site	Harbour, quay and pontoons	Other	No	Near hits	No	No
Operation site	Hub and blades	Other	No	Medical treatment injuries	No	No
Operation site	Nacelle	Other	No	Hazards	Yes	No
Operation site	Nacelle	Other	No	Restricted work day	No	No
Operation site	Office	Other	No	Near hits	Yes	No
Operation site	Office	Other	No	Near hits	Yes	No
Project site	Substation work and cable areas	Other	No	Hazards	Yes	No
Operation site	Substation work and cable areas	Other	No	Hazards	Yes	No
Operation site	Turbine tower	Other	No	Hazards	Yes	No
Operation site	Turbine tower	Other	No	Hazards	Yes	No
Operation site	Turbine tower	Other	No	Hazards	Yes	No
Project site	Vessels - large (>24 m)	Other	No	Lost work day	No	No
Project site	Vessels - large (>24 m)	Other	Yes	Medical treatment injuries	No	No
Operation site	Vessels - large (>24 m)	Other	No	Medical treatment injuries	No	Yes
Project site	Vessels - large (>24 m)	Other	No	Near hits	No	No
Operation site	Vessels - small (<24 m)	Other	No	Hazards	Yes	No
Operation site	Warehouse	Other	No	Near hits	Yes	No
Operation site	Yaw gear space	Other	No	Hazards	Yes	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	Hub and blades	Replacing major components	No	Near hits	Yes	No
Operation site	Nacelle	Replacing major components	No	Medical treatment injuries	Yes	No
Operation site	Other	Replacing major components	No	Hazards	Yes	No

Table A14: Incident data reported - Rigging/slinging

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Vessels - large (>24 m)	Rigging/slinging	No	Lost work day	No	No
Project site	Vessels - large (>24 m)	Rigging/slinging	No	Medical treatment injuries	No	No
Project site	Vessels - small (<24 m)	Rigging/slinging	No	Near hits	No	No
Operation site	Vessels - small (<24 m)	Rigging/slinging	No	Near hits	No	No

Table A15: Incident data reported - Surveys

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Access roads	Surveys	No	Near hits	No	No
Survey Phase	Access roads	Surveys	No	Near hits	No	No
Survey Phase	Excavations and civil works	Surveys	Yes	Near hits	No	No
Survey Phase	Excavations and civil works	Surveys	No	Near hits	No	No
Project site	Helicopter hoisting and landing area	Surveys	No	Near hits	No	No
Project site	Vessels - large (>24 m)	Surveys	No	Near hits	Yes	No
Survey Phase	Vessels - large (>24 m)	Surveys	No	Near hits	Yes	No
Survey Phase	Vessels - large (>24 m)	Surveys	Yes	Near hits	No	No
Project site	Vessels - large (>24 m)	Surveys	Yes	Near hits	Yes	No
Project site	Vessels - large (>24 m)	Surveys	No	Near hits	Yes	No
Project site	Vessels - large (>24 m)	Surveys	Yes	Near hits	Yes	No
Project site	Vessels - large (>24 m)	Surveys	No	Near hits	No	No
Survey Phase	Vessels - large (>24 m)	Surveys	No	Restricted work day	No	No
Project site	Vessels - small (<24 m)	Surveys	No	Hazards	Yes	No
Project site	Vessels - small (<24 m)	Surveys	No	Near hits	Yes	No
Project site	Vessels - small (<24 m)	Surveys	No	Near hits	Yes	No
Project site	Vessels - small (<24 m)	Surveys	No	Near hits	Yes	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	Public road/area	Training/drills/team building events	No	Medical treatment injuries	No	No
Operation site	Transition piece area	Training/drills/team building events	No	Hazards	No	No
Operation site	Transition piece area	Training/drills/team building events	No	Hazards	Yes	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	No	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?	UK site
Operation site	Access ladders	Transfer by vessel	No	Near Hits	Yes	No	Yes
Operation site	Access ladders	Transfer by vessel	No	Hazards	No	No	Yes
Operation site	Boatlanding	Transfer by vessel	No	Near Hits	Yes	No	Yes
Operation site	Boatlanding	Transfer by vessel	No	Near Hits	No	No	Yes
Operation site	Foundation external	Transfer by vessel	No	Near Hits	Yes	No	Yes
Operation site	Transition piece area	Transfer by vessel	No	Near Hits	No	No	Yes
Operation site	Transition piece area	Transfer by vessel	No	Hazards	No	No	Yes
Operation site	Transition piece area	Transfer by vessel	No	Near Hits	No	No	Yes
Operation site	Vessels - small (<24 m)	Transfer by vessel	No	Hazards	Yes	No	Yes
Operation site	Vessels - small (<24 m)	Transfer by vessel	No	Near Hits	Yes	No	Yes
Operation site	Vessels - small (<24 m)	Transfer by vessel	No	Near Hits	No	No	Yes
Operation site	Vessels - small (<24 m)	Transfer by vessel	No	Near Hits	Yes	No	Yes
Project site	Vessels - small (<24 m)	Transfer by vessel	No	Lost Work Day	No	No	Yes
Operation site	Vessels - small (<24 m)	Transfer by vessel	No	Hazards	No	No	Yes
Operation site	Vessels - small (<24 m)	Transfer by vessel	No	Near Hits	No	No	Yes
Operation site	Vessels - small (<24 m)	Transfer by vessel	No	Near Hits	No	No	Yes
Operation site	Vessels - small (<24 m)	Transfer by vessel	No	Near Hits	No	No	Yes

Table A19: Incident data reported - Transit (vessel)

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Access ladders	Transit (vessel)	No	Hazards	No	No
Operation site	Harbour, quay and pontoons	Transit (vessel)	No	Near Hits	No	No
Project site	Turbine tower	Transit (vessel)	No	Near Hits	No	No
Operation site	Vessels - small (<24 m)	Transit (vessel)	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Transit (vessel)	No	Near Hits	No	No
Project site	Vessels - small (<24 m)	Transit (vessel)	No	Near Hits	No	No
Operation site	Vessels - small (<24 m)	Transit (vessel)	No	Hazards	No	Yes
Operation site	Vessels - small (<24 m)	Transit (vessel)	No	Hazards	No	No
Project site	Vessels - small (<24 m)	Transit (vessel)	No	Near Hits	No	No
Operation site	Vessels - small (<24 m)	Transit (vessel)	No	Near Hits	No	No
Operation site	Vessels - small (<24 m)	Transit (vessel)	No	Restricted Work Day	No	No

Table A20: Incident data reported - Vessel mobilization

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Administration	Vessel mobilisation	No	Hazards	Yes	No
Operation site	Administration	Vessel mobilisation	No	Hazards	No	No
Project site	Boatlanding	Vessel mobilisation	No	Near Hits	No	No
Project site	Boatlanding	Vessel mobilisation	No	Near Hits	No	No
Project site	Harbour, quay and pontoons	Vessel mobilisation	No	Lost work day	Yes	No
Operation site	Harbour, quay and pontoons	Vessel mobilisation	No	Lost work day	Yes	Yes
Project site	Harbour, quay and pontoons	Vessel mobilisation	No	Near hits	Yes	No
Operation site	Vessels - small (<24 m)	Vessel mobilisation	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Vessel mobilisation	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Vessel mobilisation	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Vessel mobilisation	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Vessel mobilisation	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Vessel mobilisation	No	Hazards	Yes	No

Table A21: Incident data reported - Vessel operation

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Project site	Access ladders	Vessel operation	No	Near hits	No	No
Project site	Boatlanding	Vessel operation	No	Near hits	No	No
Project site	Boatlanding	Vessel operation	No	Near hits	No	No
Project site	Harbour, quay and pontoons	Vessel operation	No	Near hits	No	No
Operation site	Harbour, quay and pontoons	Vessel operation	No	Near hits	No	No
Project site	Harbour, quay and pontoons	Vessel operation	No	Near hits	No	No
Project site	Harbour, quay and pontoons	Vessel operation	No	Near hits	No	No
Project site	Harbour, quay and pontoons	Vessel operation	No	Near hits	No	No
Project site	Harbour, quay and pontoons	Vessel operation	No	Near hits	No	No
Project site	Harbour, quay and pontoons	Vessel operation	No	Near hits	No	No
Operation site	Vessels - large (>24 m)	Vessel operation	No	Hazards	Yes	No
Operation site	Vessels - large (>24 m)	Vessel operation	No	Hazards	No	No
Operation site	Vessels - large (>24 m)	Vessel operation	No	Hazards	No	No
Operation site	Vessels - large (>24 m)	Vessel operation	No	Hazards	No	No
Operation site	Vessels - large (>24 m)	Vessel operation	No	Hazards	Yes	No
Operation site	Vessels - large (>24 m)	Vessel operation	No	Hazards	No	No
Project site	Vessels - large (>24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - large (>24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - large (>24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - large (>24 m)	Vessel operation	No	Near hits	No	No
Operation site	Vessels - small (<24 m)	Vessel operation	No	Lost work day	Yes	Yes
Project site	Vessels - small (<24 m)	Vessel operation	No	Medical treatment injuries	No	No
Project site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Operation site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Operation site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Operation site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Vessel operation	No	Near hits	No	No
Project site	Vessels - small (<24 m)	Vessel operation	No	Near hits	Yes	No
Operation site	Vessels - small (<24 m)	Vessel operation	No	Near hits	Yes	No
Operation site	Vessels - small (<24 m)	Vessel operation	No	Hazards	Yes	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	Hazards	Yes	No
Project site	Access ladders	Working at heights	No	Hazards	Yes	No
Project site	Access ladders	Working at heights	No	Hazards	Yes	No
Operation site	Access ladders	Working at heights	No	First Aid	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	Yes	Near Hits	No	No
Operation site	Boatlanding	Working at heights	No	Hazards	Yes	No
Project site	Boatlanding	Working at heights	No	Near hits	No	No
Project site	Excavations and civil works	Working at heights	No	Hazards	Yes	No
Operation site	Foundation internal	Working at heights	No	Hazards	Yes	No
Project site	Foundation internal	Working at heights	No	Hazards	Yes	No
Operation site	Helicopter hoisting and landing area	Working at heights	No	Hazards	Yes	No
Operation site	Helicopter hoisting and landing area	Working at heights	No	Hazards	Yes	No
Operation site	Hub and blades	Working at heights	No	First aid	No	No
Operation site	Hub and blades	Working at heights	No	Near hits	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	No	Hazards	Yes	No
Operation site	Nacelle	Working at heights	No	Hazards	No	No
Operation site	Nacelle	Working at heights	No	Hazards	No	No
Operation site	Nacelle	Working at heights	No	Hazards	No	No
Project site	Nacelle	Working at heights	No	Lost work day	No	No
Operation site	Nacelle	Working at heights	No	Near hits	No	No
Operation site	Nacelle	Working at heights	No	Near hits	No	No
Operation site	Office	Working at heights	No	Hazards	No	No
Project site	Office	Working at heights	No	Near hits	No	No
Operation site	Other	Working at heights	No	Hazards	Yes	No
Project site	Other	Working at heights	No	Hazards	Yes	No
Operation site	Transition piece area	Working at heights	No	Hazards	Yes	No
Project site	Transition piece area	Working at heights	No	Near hits	No	No
Operation site	Transition piece area	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	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	Near hits	No	No
Project site	Turbine tower	Working at heights	Yes	Near hits	No	No
Operation site	Turbine/substation outside	Working at heights	No	Hazards	No	No
Operation site	Vessels - small (<24 m)	Working at heights	No	Near hits	No	No
Operation site	Warehouse	Working at heights	No	Hazards	Yes	No
Project site	Workshop	Working at heights	No	Hazards	Yes	No
Project site	Workshop	Working at heights	No	Near hits	No	No
Operation site	Yaw gear space	Working at heights	No	Medical treatment injuries	No	No
Operation site	Yaw gear space	Working at heights	Yes	Near hits	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?
Operation site	Foundation internal	Working in confined spaces	No	Near hits	Yes	No
Operation site	Nacelle	Working in confined spaces	No	Near hits	Yes	No
Operation site	Nacelle	Working in confined spaces	No	Restricted work day	No	No
Operation site	Vessels - small (<24 m)	Working in confined spaces	No	Restricted work day	No	No

Table A24: Incident data reported - Working on energised systems

Site type	Incident area	Work process	Dropped object incident?	Actual consequence	High potential incident?	ERME incident?
Operation site	Administration	Working on energised systems	No	Near hits	Yes	No
Project site	Excavations and civil works	Working on energised systems	No	Medical treatment injuries	No	No
Operation site	Nacelle	Working on energised systems	No	Hazards	Yes	No
Operation site	Nacelle	Working on energised systems	No	Medical treatment injuries	No	No
Operation site	Nacelle	Working on energised systems	No	Near hits	No	No
Operation site	Other	Working on energised systems	No	Hazards	Yes	No
Operation site	Substation HV areas (>1 000 V)	Working on energised systems	No	Near hits	Yes	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?
Operation site	Turbine tower	Working with chemicals and hazardous substances	No	Hazards	Yes	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	Near hits	No	Yes
Operation site	Hub and blades	Working with hand tools/power tools	No	Medical treatment injuries	No	No
Operation site	Nacelle	Working with hand tools/power tools	No	Medical treatment injuries	No	No
Operation site	Nacelle	Working with hand tools/power tools	No	Restricted work day	No	No
Project site	Office	Working with hand tools/power tools	No	First aid	No	No
Project site	Transition piece area	Working with hand tools/power tools	No	First aid	No	No
Project site	Vessels - large (>24 m)	Working with hand tools/power tools	No	First aid	No	No
Operation site	Warehouse	Working with hand tools/power tools	No	Hazards	Yes	No

Annex B

The following incident consequence definitions have been used in the G9 incident data:

Fatality	Incident that involves 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 incident that involves 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	Incident that does not result in a fatality or a lost work day but does result in a person being unfit for the full performance of the regular job on any work 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 days 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 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.

The following statistical definitions have been used in the G9 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.
Lost time injury frequency (LTIF)	The number of fatalities and lost work day incidents per million hours worked.

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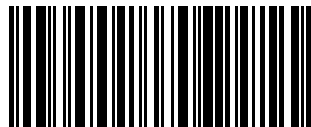
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