

# Offshore Statistics & Regulatory Activity Report 2019

## Contents

<u>Preface .....</u>	<u>2</u>
<u>Executive Summary .....</u>	<u>3</u>
<u>Industry profile .....</u>	<u>3</u>
<u>Regulatory activity: HSE inspections, investigations, concerns and safety case assessments .....</u>	<u>4</u>
<u>Dutyholder performance: Topic scores and non-compliance issues .....</u>	<u>9</u>
<u>Dutyholder incidents: Dangerous occurrences and Hydrocarbon releases ..</u>	<u>14</u>
<u>Personal safety incidents: RIDDOR reported injuries and diseases .....</u>	<u>16</u>
<u>Explanatory notes .....</u>	<u>22</u>

# Preface

HSE is responsible for regulating health and safety matters offshore. The Health and Safety at Work Act 1974 (HSWA), supported by the HSWA (Application outside Great Britain) Order 2013, defines HSE's jurisdiction. HSE works with other regulators under Memorandum of Understandings and agency agreements where there are potential overlaps in responsibilities

In July 2015, HSE and the Department of Energy and Climate Change (DECC) created the Offshore Safety Directive Regulator (OSDR), which is the Competent Authority (CA) responsible for implementing the requirements of the EU Directive on the safety of offshore oil and gas operations. The Department for Business, Energy and Industrial Strategy (BEIS) was created on 14 July 2016 as a result of a merger between the DECC and the Department for Business, Innovation and Skills. OSDR is therefore now a partnership jointly managed and operated by BEIS's Offshore Petroleum Regulator for Environment & Decommissioning unit (OPRED) and HSE.

The Oil and Gas Authority (OGA) became an Executive Agency of DECC on 1 April 2015 and on 1 October 2016 was incorporated as a Government Company with the Secretary of State for BEIS as the sole shareholder. The OGA licence oil and gas exploration and extraction and operates independently from BEIS and HSE.

This Offshore Statistics & Regulatory Activity Report provides details of HSE's regulatory activity offshore during 2019 and offshore injuries, dangerous occurrences and ill health reported to HSE under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). The data in this report is a frozen, validated snapshot of operational information from HSE systems, and is published as Official Statistics. Wherever possible, data is based on a calendar year. Data for the most recent year is marked with a 'p' for provisional to allow for minor adjustments to be made when they are released as final in the subsequent annual report. This may be necessary if there are, for example, late reports or corrections. In practice, such changes are infrequent and would usually make a negligible difference to the numbers.

## General inclusions to this report

The regulatory activity information includes the following:

- Safety case assessments
- Complaints (Concerns)
- Inspections
- Investigations
- Enforcement (Notices and Prosecutions)

The RIDDOR data includes incidents occurring on:

- offshore installations
- offshore wells and activities in connection with them
- offshore pipelines, pipeline works and certain activities in connection with pipeline works
- offshore diving operations

## General exclusions to this report

This Offshore Statistics & Regulatory Activity Report does not include:

- Incidents arising from marine activities that are not directly connected with offshore operations (e.g. vessels or rigs in transit). The Maritime and Coastguard Agency (MCA) has primary responsibility for maritime safety. Information on marine incidents can be found on the MCA website at [www.gov.uk/government/organisations/maritime-and-coastguard-agency](http://www.gov.uk/government/organisations/maritime-and-coastguard-agency).
- Air transport activities (including transport to, from or between installations), except incidents involving helicopters whilst on an offshore installation. The Civil Aviation Authority (CAA) has responsibility for aircraft flight safety. HSE has responsibility to ensure that heli-decks on offshore installations are safe. Information on air transport incidents can be found on the CAA website at [www.caa.co.uk](http://www.caa.co.uk).

Oil & Gas UK (OGUK), the leading representative body for the UK offshore industry, also produce an annual health and safety report. This can be found on their website at [www.oilandgasuk.co.uk](http://www.oilandgasuk.co.uk).

## Executive summary

### Regulatory activity in 2019:

- There were 174 inspections undertaken at 146 offshore installations
- 93 investigations were completed
- 39 workplace health and safety concerns were followed up
- 84 safety cases were assessed

### Dutyholder performance in 2019:

- 1,382 non-compliance issues were raised with operators
- 22 enforcement notices were issued (19 improvement notices and three prohibition notices)
- There were no prosecution cases initiated in 2019

### Dutyholder incidents in 2019:

- There were 218 dangerous occurrences reported
- There were 126 hydrocarbon releases

### Personal safety incidents in 2019:

- There were no fatal injuries in 2019; there have been six fatalities in the last ten years
- There were 25 specified injuries, with a rate of 86 per 100,000 full-time equivalent (FTE) workers
- There were 73 over-seven-day injuries, with a rate of 252 per 100,000 FTE workers

## Industry profile

The UK offshore industry operates the Vantage personnel tracking system, which records the number of nights of Persons on Board (PoB). Details can be found at [www.logic-oil.com/vantagepob](http://www.logic-oil.com/vantagepob). Using this information, it can be determined that in 2019, 4.8 million days were spent offshore.

It is estimated that there was an offshore population of around 29,000 full time equivalent (FTE) workers in 2019, similar to the number in 2018.

FTE is based on the assumption that each shift on average lasts 12 hours, and an FTE worker works 2000 hours annually:

$$FTE = Total\ PoB\ Nights \times 12 \div 2000$$

The assumption that a full time equivalent works 2000 hours a year is based on what other regulators do, in particular the Occupational Safety and Health Administration (OSHA), the regulatory agency of the US federal government found at [www.osha.gov](http://www.osha.gov).

Each year, OGUK publish a report on activity in the UK Offshore Oil & Gas industry. Further Information can be found at [oilandgasuk.co.uk/product/business-outlook-report](http://oilandgasuk.co.uk/product/business-outlook-report).

# Regulatory activity: HSE inspections, investigations, concerns and safety case assessments

HSE's regulatory programme for the offshore industry seeks to ensure major hazard and personal risks are properly managed in compliance with legislative requirements.

Key regulatory activities are:

- Inspecting installations
- Investigating incidents
- Following up concerns
- Assessing safety cases

More information can be found in the HSE Business Plan for 2019/20, which is available at [www.hse.gov.uk/aboutus/strategiesandplans/businessplans](http://www.hse.gov.uk/aboutus/strategiesandplans/businessplans). Data on regulatory activity covers the last eight-year period from 2012 to 2019.

## Summary of ED offshore activity in 2019

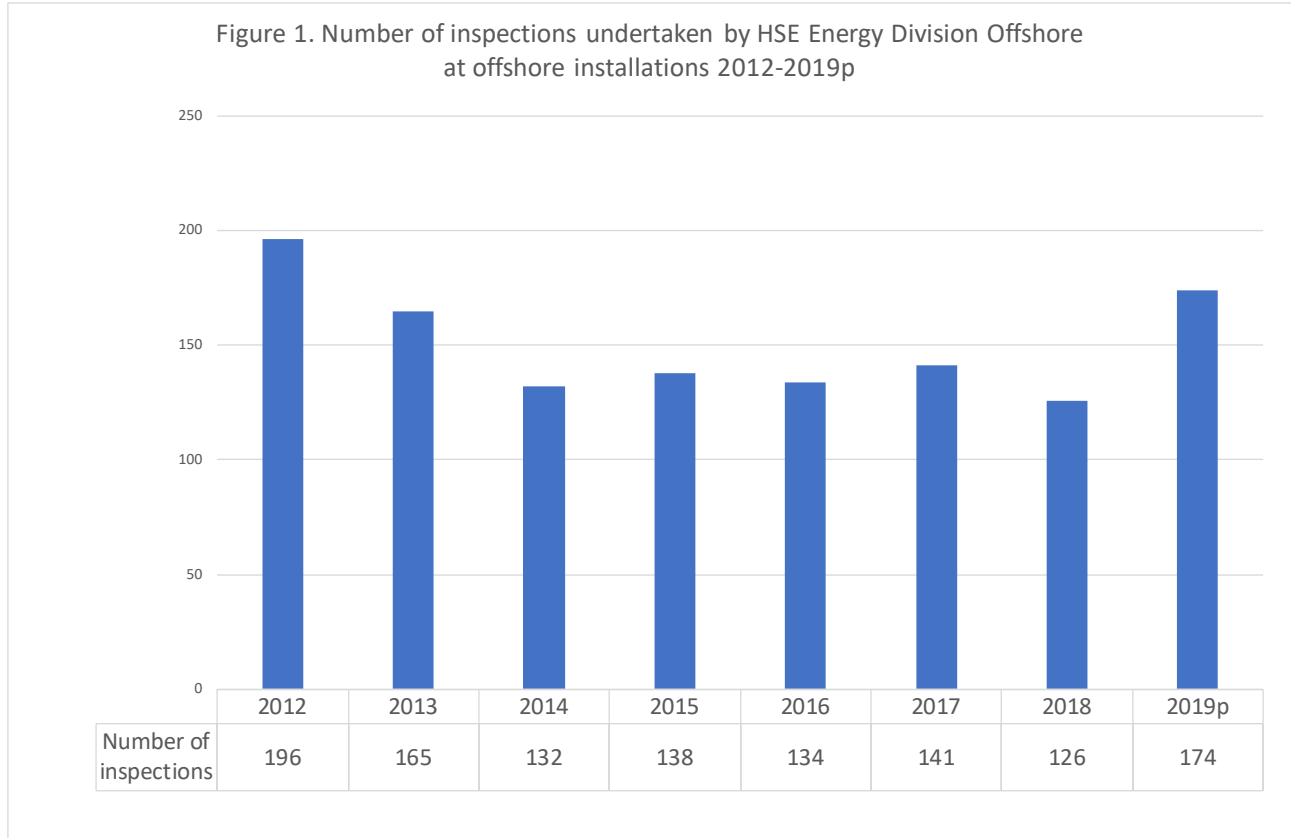
- 174 planned offshore inspections undertaken at 146 offshore installations, representing the highest number of inspections since 2012
- 93 investigations completed, representing the highest number of investigations undertaken since 2013
- 39 health and safety concerns followed up; higher than the previous two years
- 84 Safety Case Submissions assessed; lower than the previous three years

## Inspections undertaken

Delivering and properly prioritising inspections is a high priority activity for HSE in ensuring it delivers its major hazard strategy while supporting businesses to grow.

Therefore, HSE's Energy Division Offshore aims to ensure its regulatory activity is proportionate to the risks to people, taking into account the operator's performance in controlling risks. This means that ED Offshore will inspect higher hazard installations and operators with poorer performance with greater frequency and in greater depth than installations and operators where risks are perceived to be better managed.

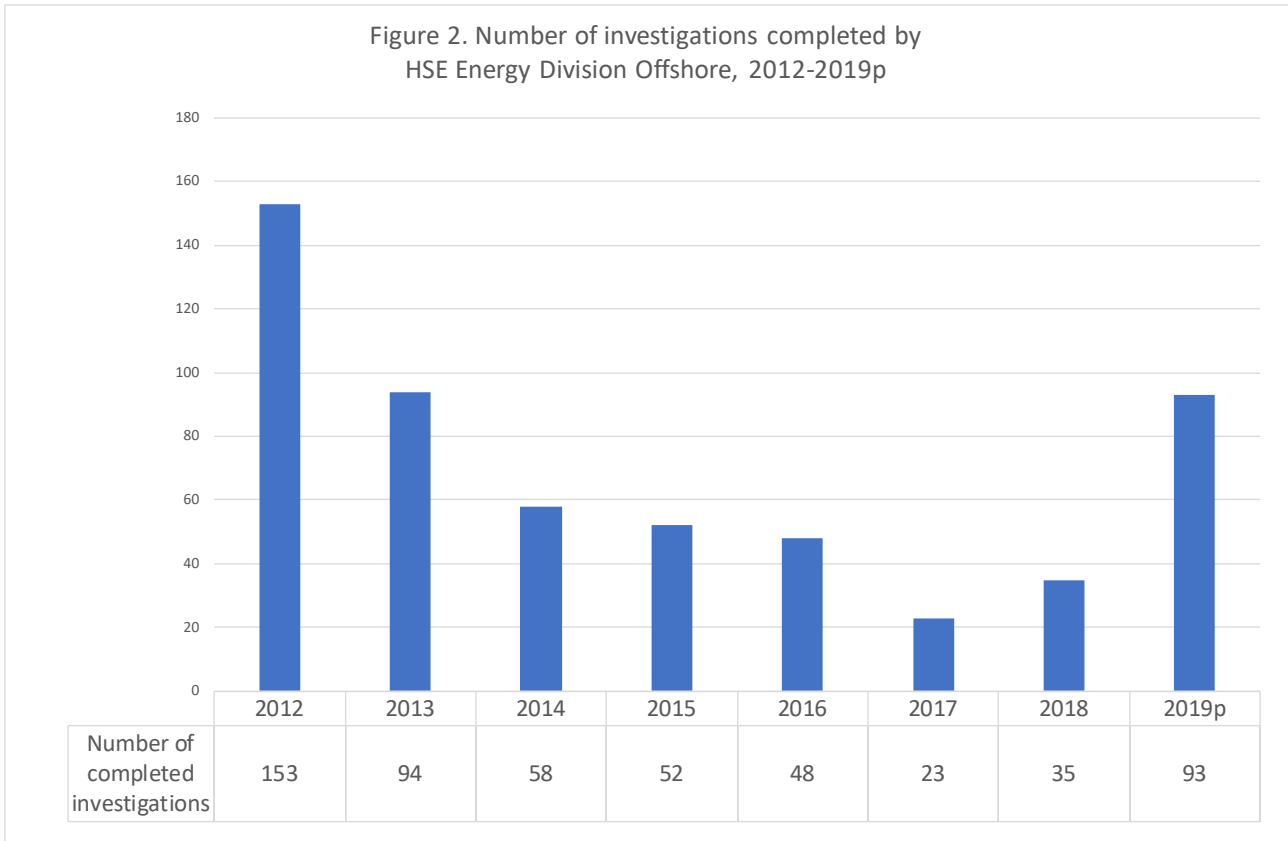
HSE's policy is to conduct inspections in accordance with its Enforcement Policy Statement at <https://www.hse.gov.uk/enforce/enforcepolicy.htm>, applying the principles set out in its Enforcement Management Model at [www.hse.gov.uk/enforce/enforcement-management-model.htm](http://www.hse.gov.uk/enforce/enforcement-management-model.htm) to regulatory decision making.



Source: HSE operational information (*p* = provisional)

## Investigations completed

HSE investigates any incidents which meet its Incident Selection Criteria. Trends over time are difficult to interpret since counts are based on the total number of investigations that are closed on the data management system within the calendar year. Actual incidents and any associated regulatory work may have largely been completed in previous years meaning that peaks and troughs may represent periods of greater or lesser internal focus on completing written reports rather than actual fluctuations in the number of incidents.

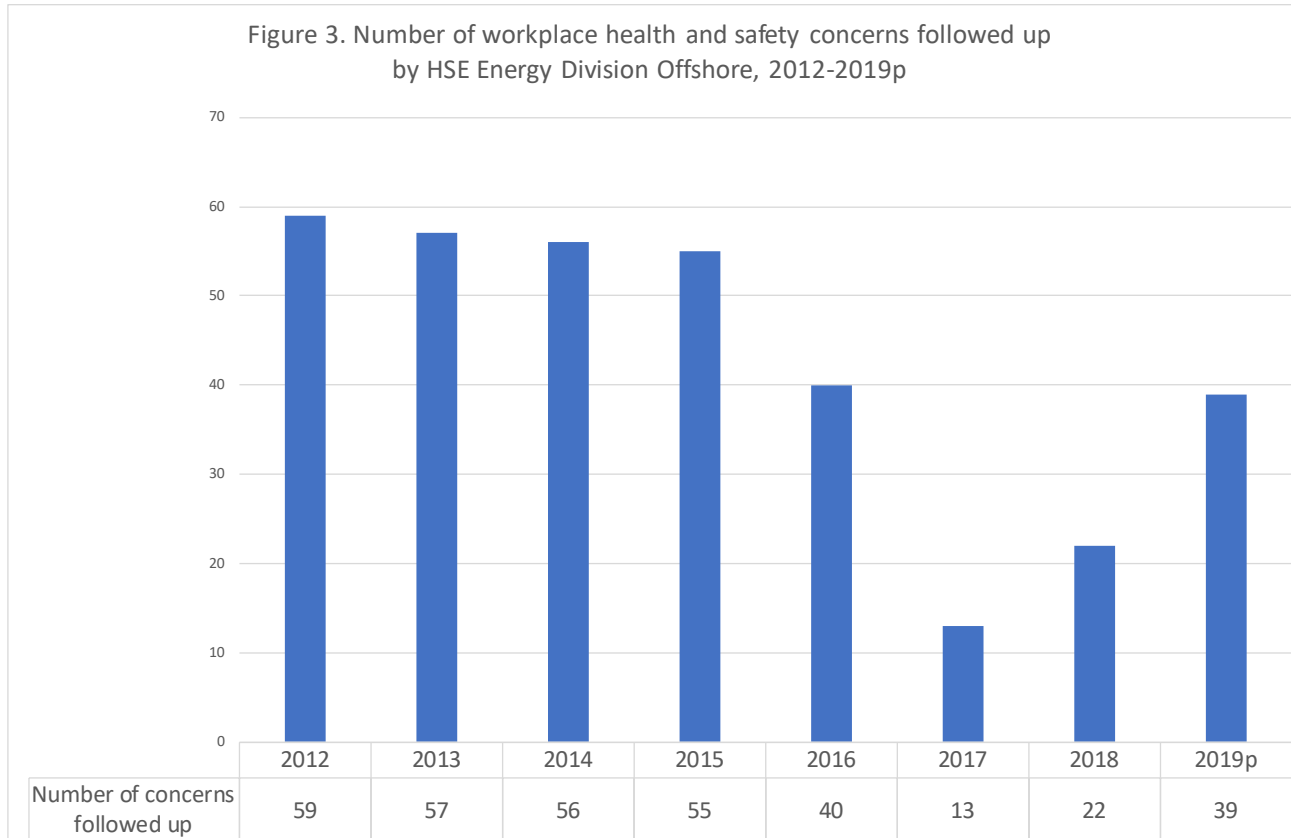


Source: HSE operational information (p = provisional)

## Concerns followed up

Any employee can raise a health and safety concern with HSE if they believe that health and safety law is being broken, or minimum standards are being ignored within the workplace, and if neither the employer nor the work/safety representative can satisfactorily resolve their concern.

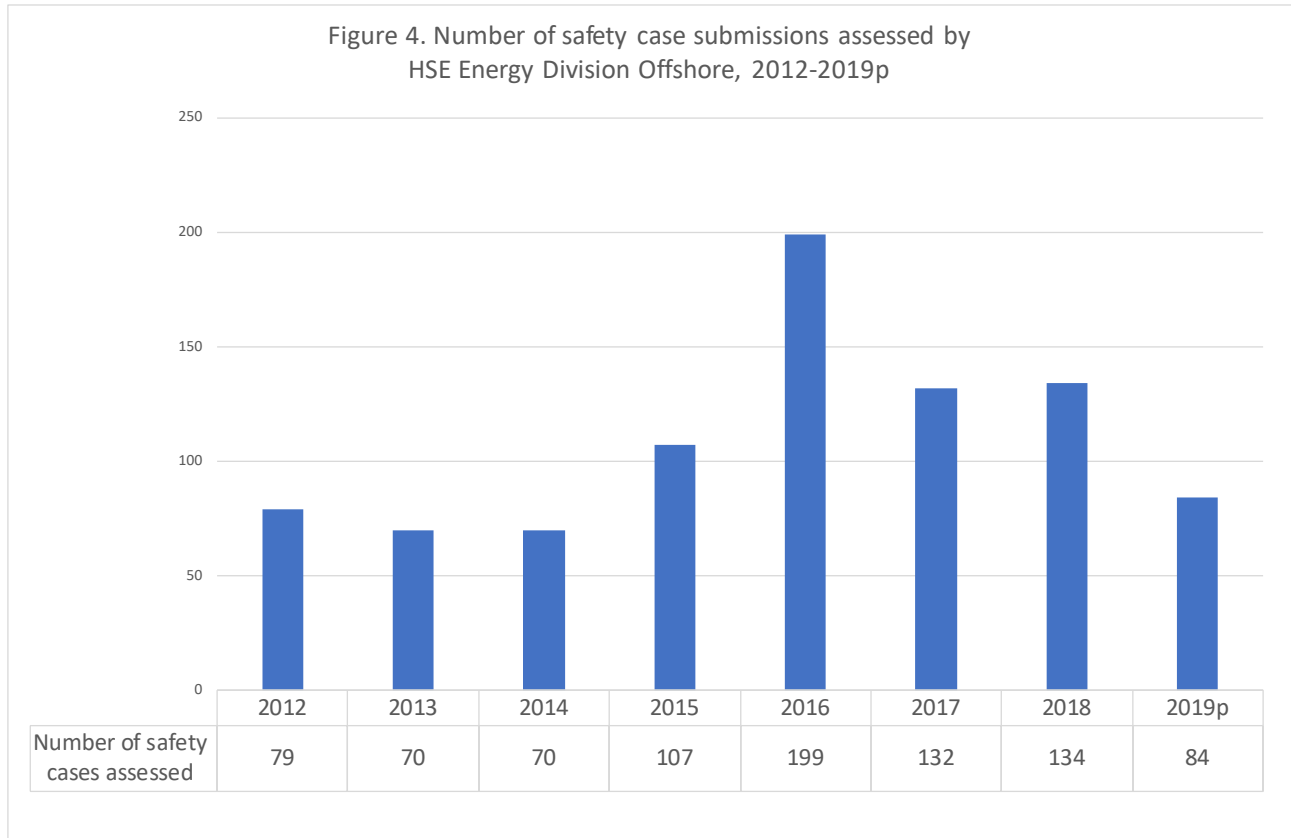
HSE will only take action if it relates to a work activity and the issue raised has caused or has potential to cause significant harm, alleges the denial of basic employee welfare facilities or appears to constitute a significant breach of health and safety law. More detail about the concerns process is available at [www.hse.gov.uk/contact/concerns.htm](http://www.hse.gov.uk/contact/concerns.htm).



Source: HSE operational information (p = provisional)

### Safety case submissions assessed

Dutyholders are required by the Offshore Installations (Offshore Safety Directive) (Safety Case etc) Regulations 2015 (SCR 2015) to submit a safety case for each installation. This is a written demonstration of safety that has to be updated whenever necessary, to reflect changing knowledge and operational conditions. HSE must accept the safety case before an installation can operate. More detail can be found at [www.hse.gov.uk/offshore/safetycases.htm](http://www.hse.gov.uk/offshore/safetycases.htm). Counts are based on the total number of completed assessments in each calendar year.



Source: HSE operational information (p = provisional)



# Dutyholder performance: Topic scores and non-compliance issues

During an inspection, the HSE inspector will assess the dutyholder against the selected inspection topics and award a score per topic.

They will also record any non-compliance issues identified at inspection (or during investigations) that require action by an operator, and these are normally communicated to an operator within a formal letter.

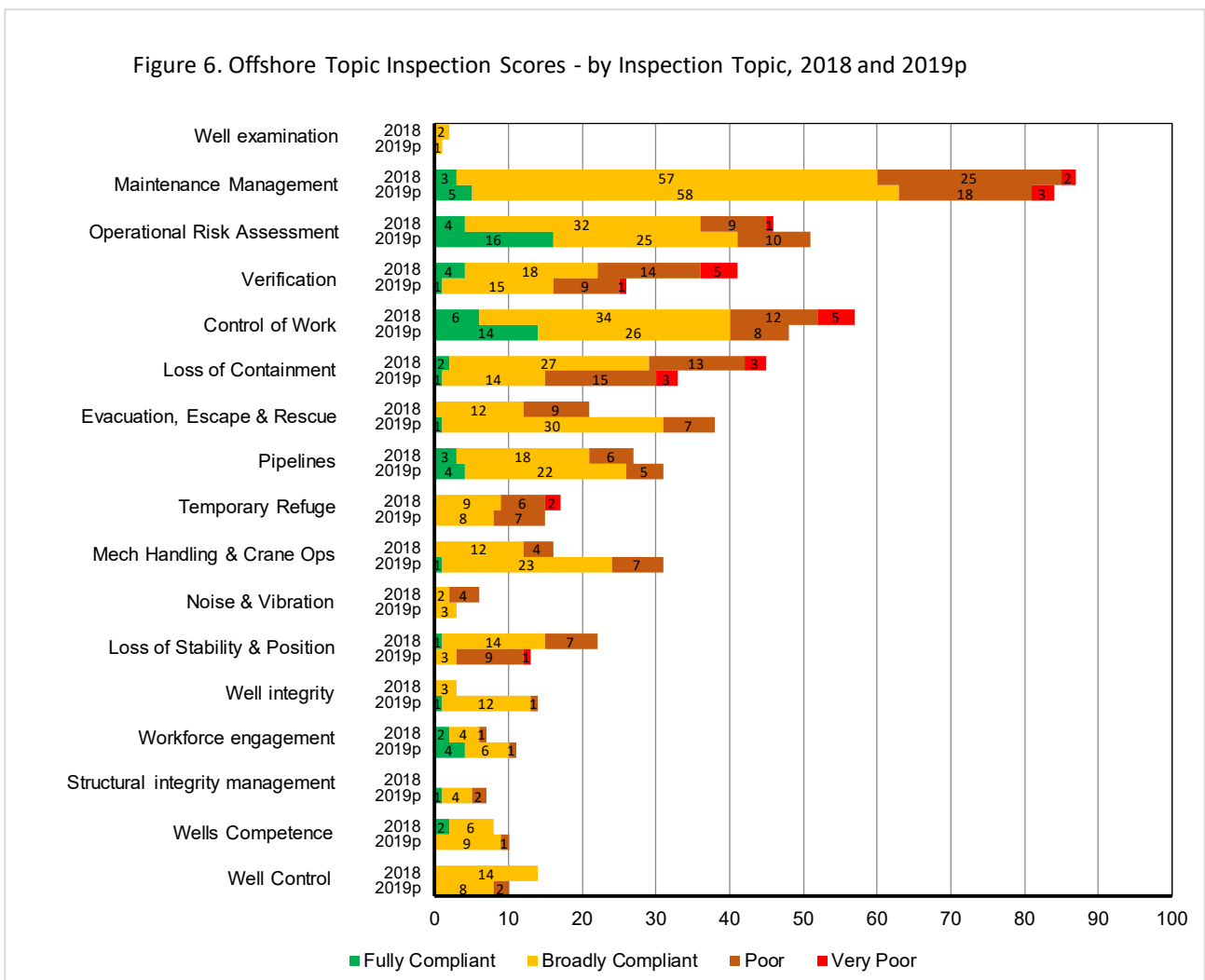
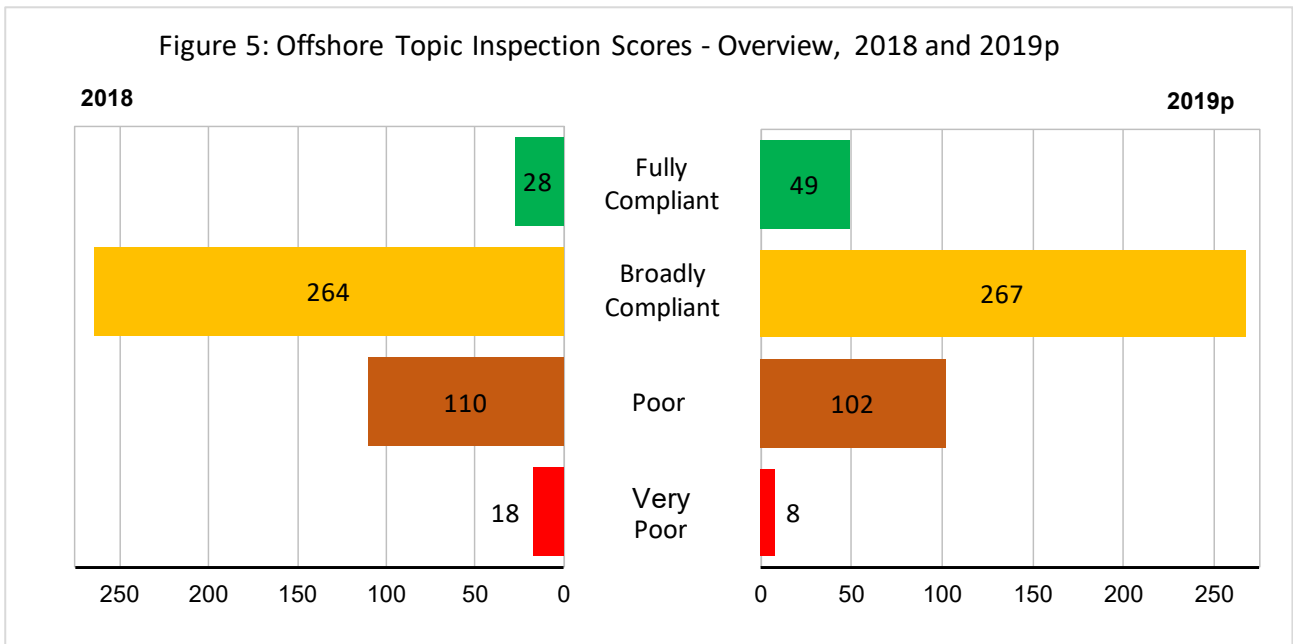
Where appropriate, HSE will also take formal enforcement action such as Notices and Prosecutions, to prevent harm and secure justice in line with its Enforcement Policy.

## Summary of findings relating to dutyholder performance in 2019

- 426 topic inspection scores assigned, with 74% indicating broad or full compliance but 26% rated as poor or very poor
- 1,382 non-compliance issues identified with the issues most commonly identified relating to maintenance and operating procedures
- 19 improvement notices and three prohibition notices issued
- No prosecution cases instituted

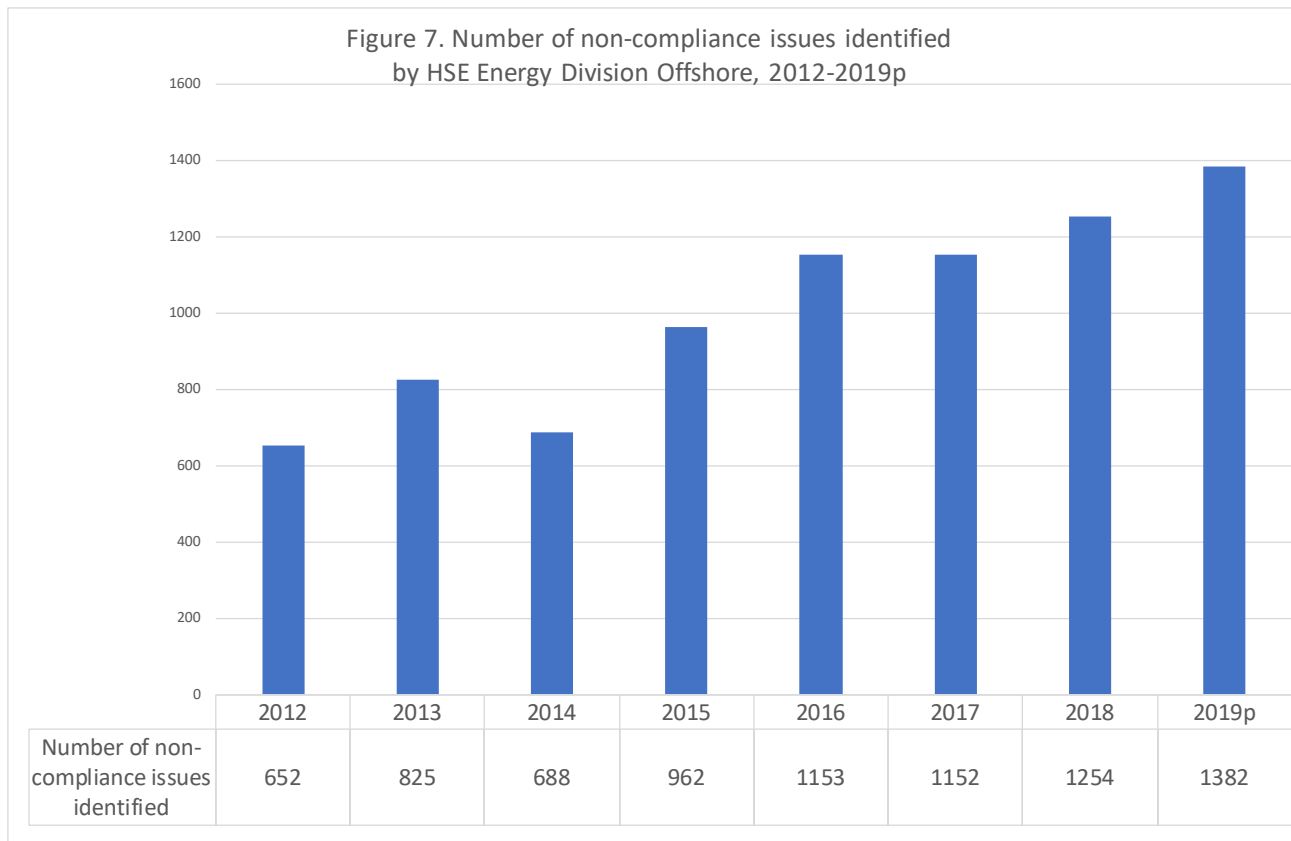
## Topic scores

Inspectors assign scores in relation to health and safety management observed on site, in accordance with HSE's Offshore Topic Inspection Guides at [www.hse.gov.uk/offshore/inspection.htm](http://www.hse.gov.uk/offshore/inspection.htm).

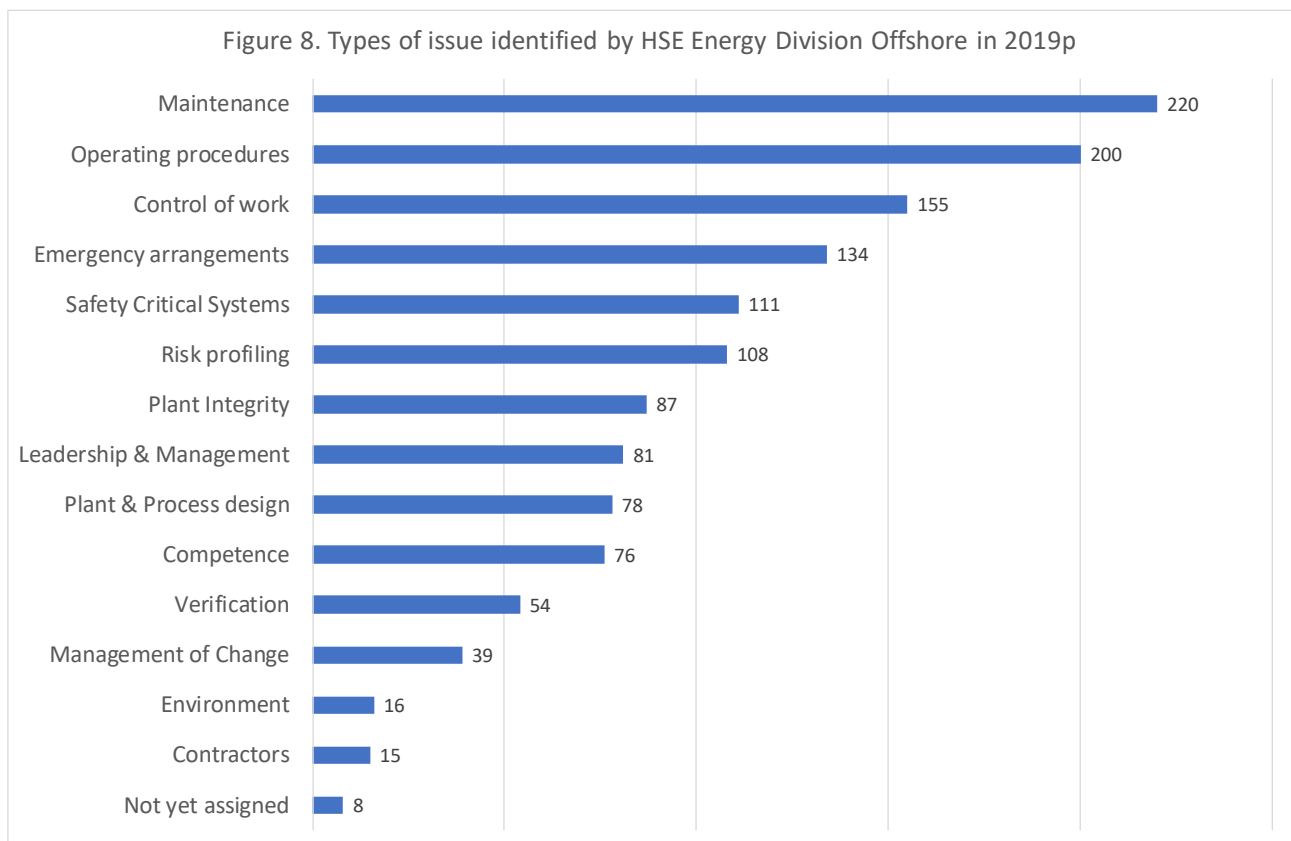


Source: HSE operational data (p = provisional)

## Non-compliance issues identified



Source: HSE operational information (p = provisional)

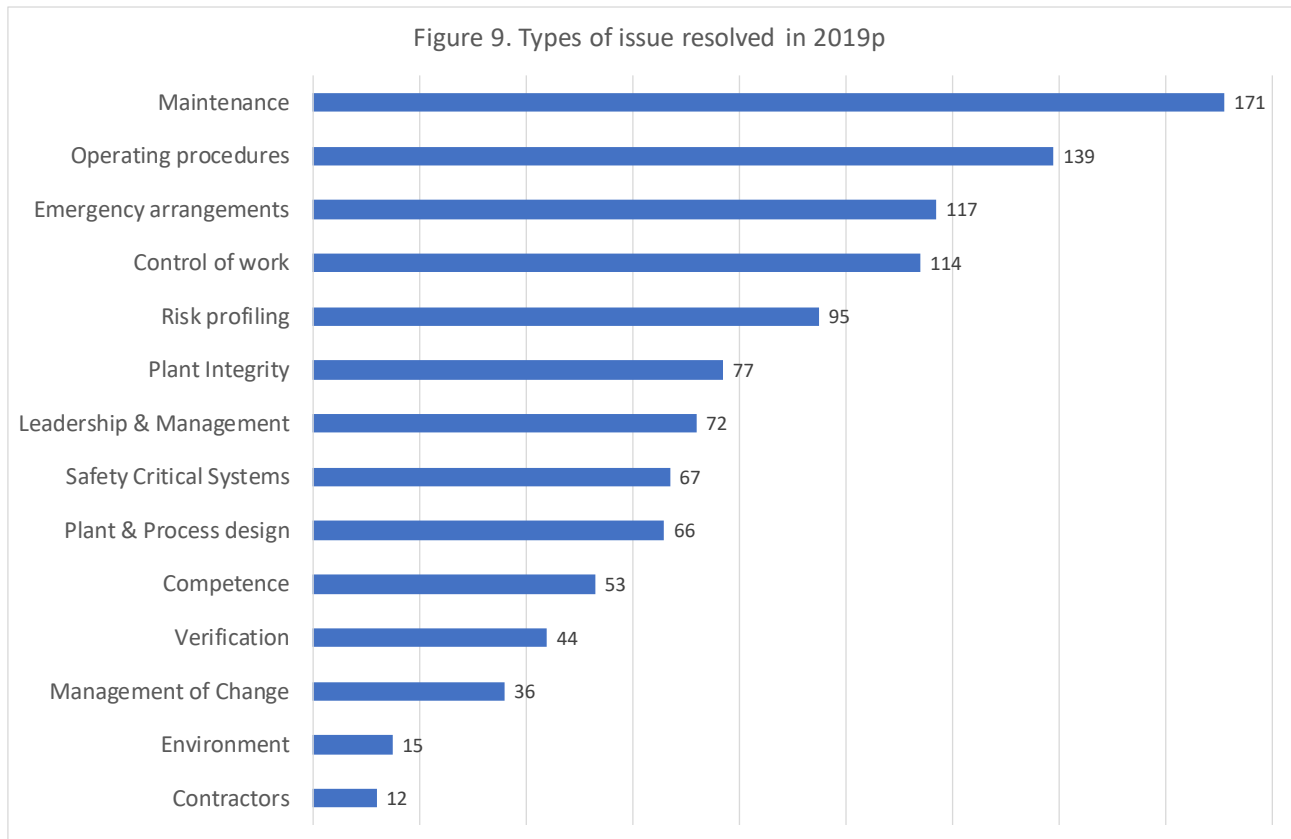


Source: HSE operational information (p = provisional)

## Enforcement

While the number of issues identified over the course of a year gives an idea of dutyholder performance, the number that are resolved within a given year (which will include issues first identified in previous years) provides an indication that issues are being addressed.

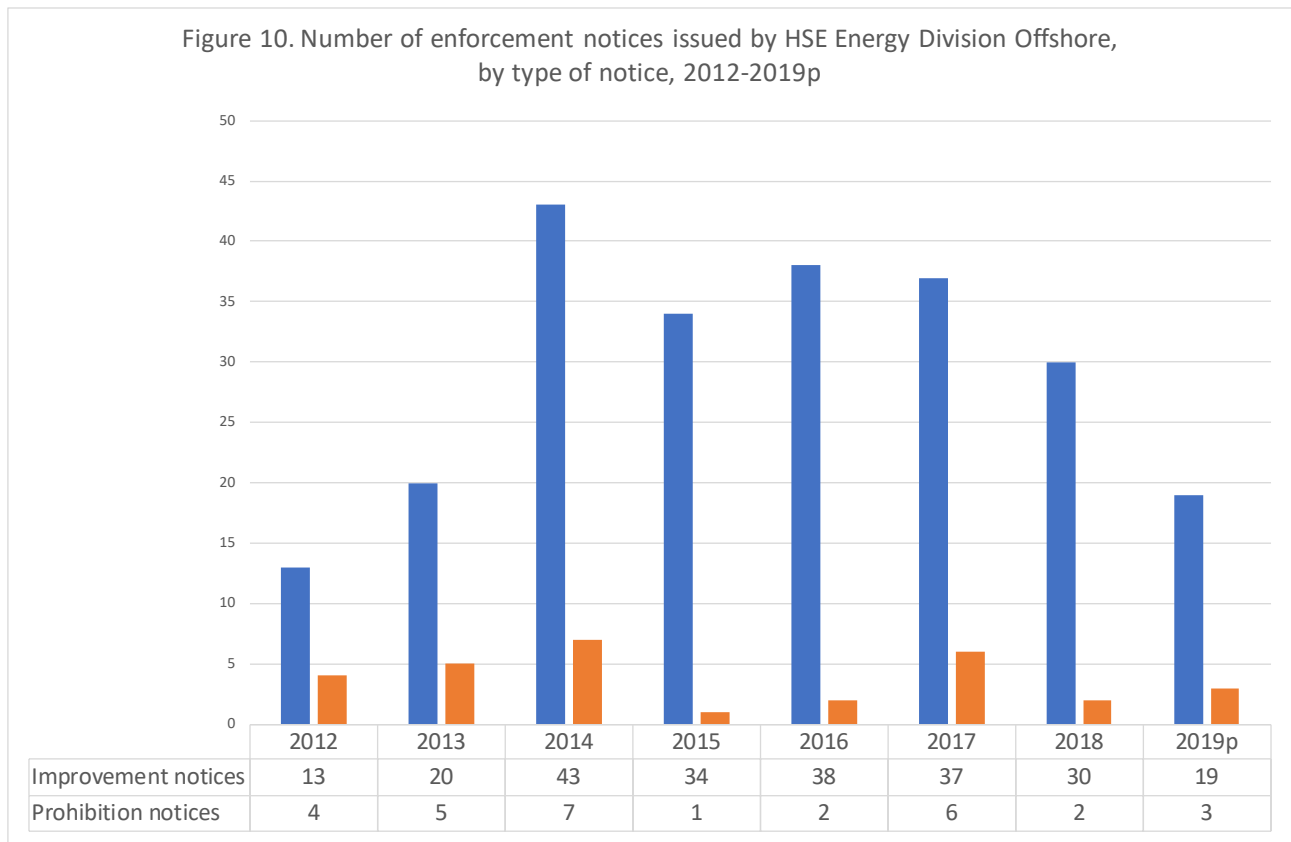
In the majority of cases, where issues have been identified a letter is written to the dutyholder identifying the non-compliance and the remedial action required. An issue is not normally considered as being resolved until HSE is able to verify that the required action has been taken. Formal enforcement action is taken where there are more serious breaches.



Source: HSE operational information (p = provisional)

ED Offshore applies the principles detailed in HSE's Enforcement Policy Statement which can be found at [www.hse.gov.uk/enforce/enforcepolicy.htm](http://www.hse.gov.uk/enforce/enforcepolicy.htm) when enforcing health and safety legislation. There are a range of tools at its disposal in seeking to secure compliance with the law and ensure a proportionate response to offences.

For more serious offences, inspectors may serve improvement notices and prohibition notices, and they may prosecute (or in Scotland, report to the Crown Office and Procurator Fiscal Service (COPFS) with a view to prosecution).



Source: HSE operational information (p = provisional)

No prosecutions were initiated in 2019.

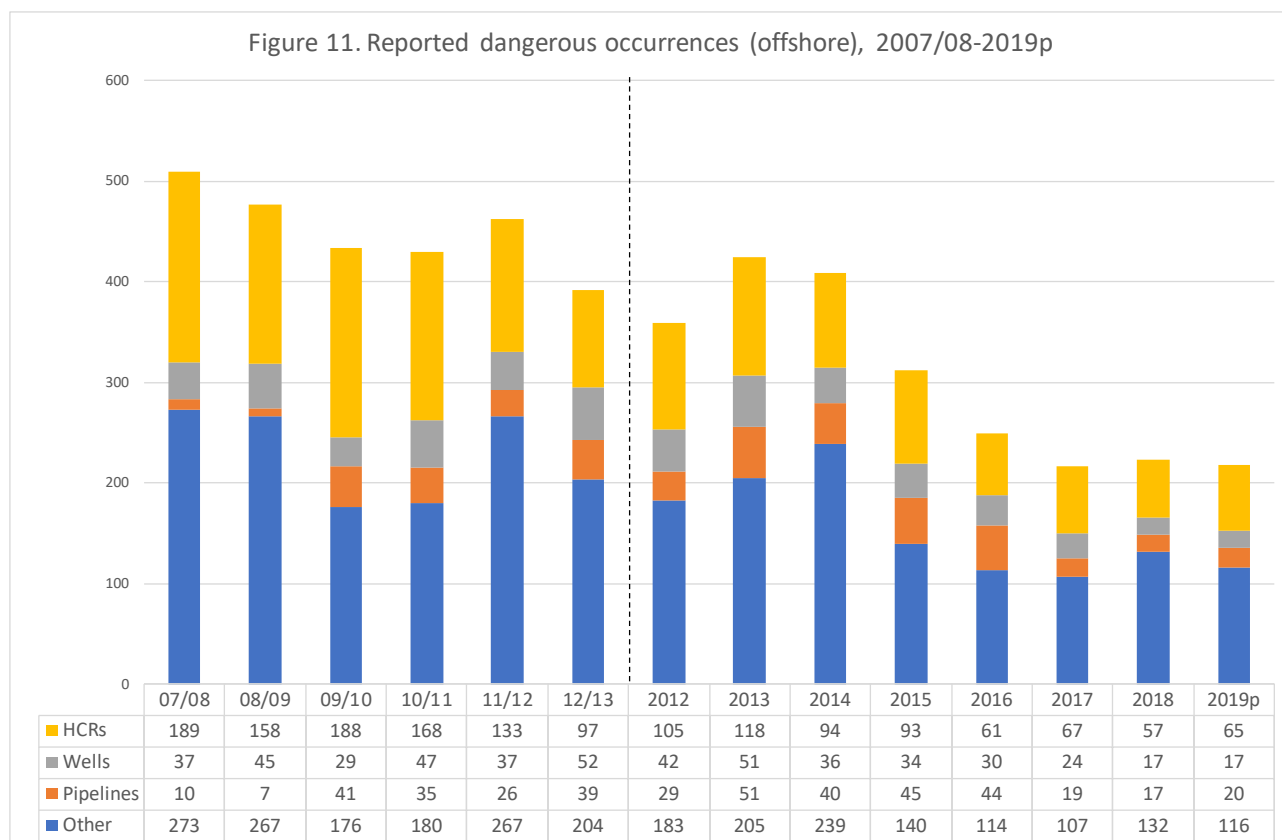
# Dutyholder incidents: Dangerous occurrences and Hydrocarbon releases

## Summary of findings relating to dutyholder incidents in 2019

- There were 218 DOs reported in 2019, similar to the numbers in the previous two years
- The number of reported wells DOs is the same as last year having previously been decreasing steadily
- The total number of hydrocarbon releases reported under RIDDOR and under EU Offshore Directive arrangements increased to 126 in 2019. The release rate has fluctuated over the past ten years but was higher in 2019 than the previous year.
- Hydrocarbon releases reported under RIDDOR also increased slightly and accounted for almost a third of the DOs reported under RIDDOR (30%; 65 of 218)
- Since the introduction of the ROGI ('Reporting of Oil and Gas Incidents') form, all non-process HCRs (for example, heli fuel and diesel spills) reported under the EU Offshore Directive arrangements are classified in the same way and against the same criteria as process HCRs. In 2019, 61 of the 126 HCRs were reported solely under the EU Offshore Directive arrangements and did not meet the criteria to be reportable under RIDDOR.
- Non-process HCRs account for over 30% of HCR figures for 2016 to 2019, higher than in previous years

## Dangerous occurrences

As part of the changes introduced in October 2013 following a full-scale review of RIDDOR, many defined dangerous occurrence (DO) categories changed 'type number' as well as description. For more detail on DOs that are reportable at an offshore workplace, see [www.hse.gov.uk/riddor/dangerous-occurrences.htm](http://www.hse.gov.uk/riddor/dangerous-occurrences.htm).



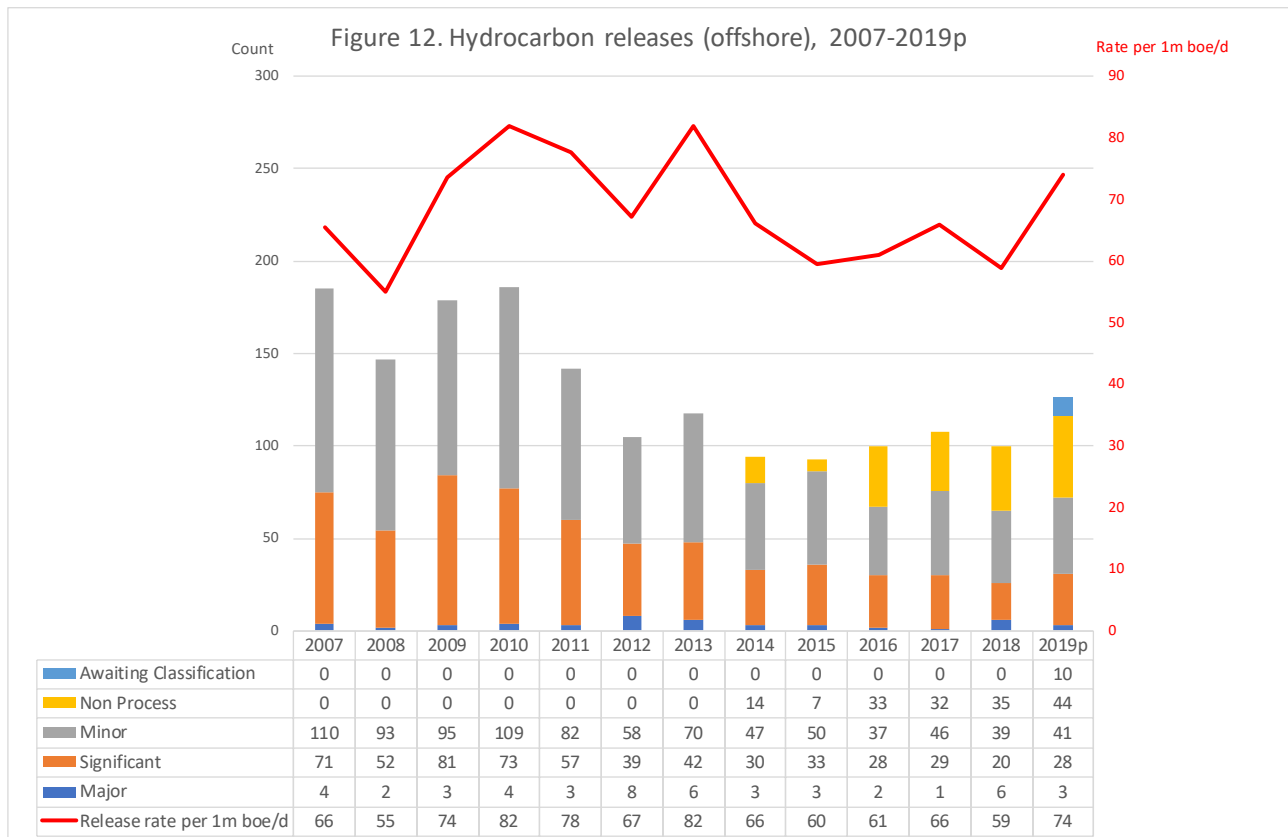
Source: RIDDOR (p = provisional)

## Hydrocarbon releases

Hydrocarbon releases (HCRs) are classified as 'Minor', 'Significant', or 'Major' on the basis of their severity; these definitions have been agreed with the offshore industry. Full HCR incident data and population data from 1992 to 2016 can be found in two separate spreadsheets at [www.hse.gov.uk/offshore/statistics.htm](http://www.hse.gov.uk/offshore/statistics.htm). By combining incident and population data, estimates of the frequency of loss of containment incidents for equipment and system types can be determined.

The HCR release rate is based on the level of production in million barrels of oil equivalent per day (boe/d) reported by OGUK in their annual Business Outlook Report.

As a result of the new EU Commission Implementing Regulation No. 1112/2014, some of HSE's voluntary notification scheme became mandatory. As such, from July 2015, some non-process HCRs were allocated severity classifications again and by July 2017 all non-process HCRs were classified. To maintain a consistent back series, the non-process HCRs are still presented separately in Figure 12.



Source: HCR database

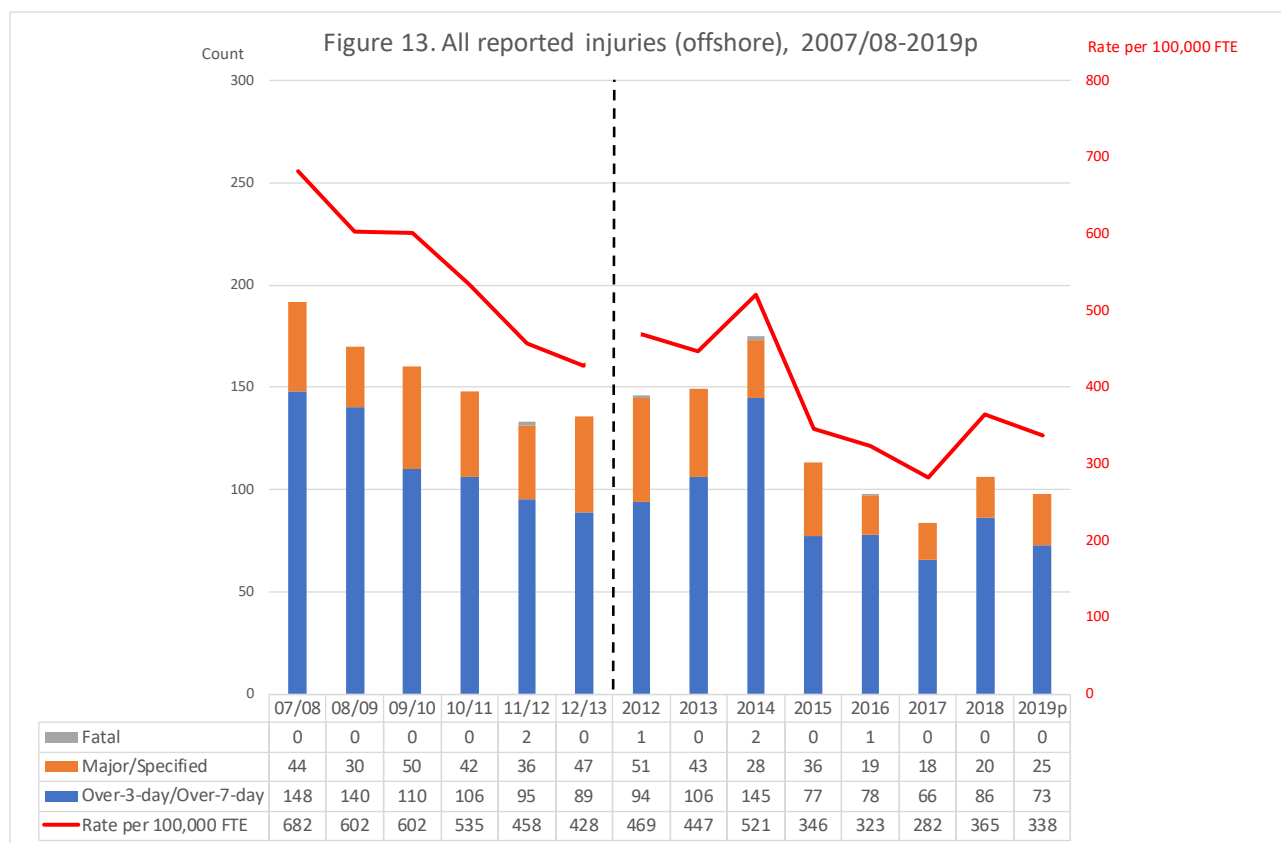
# Personal safety incidents: RIDDOR reported injuries and diseases

RIDDOR data for the period 2007/08 to 2012/13 is based on fiscal year (April-March). Data from 2012 is based on calendar year (January-December).

For RIDDOR, a number of changes to the reporting system and legal requirements have occurred over recent years, making comparisons difficult with previous data. In particular, in October 2013, the classification of 'major injuries' to workers was replaced with a shorter list of 'specified injuries' and in April 2012, the legal requirement to report injuries to workers resulting in more than three days absence ('over-3-day') changed to 'over-7-day'. Full details can be found at [www.hse.gov.uk/statistics/riddor-notification.htm](http://www.hse.gov.uk/statistics/riddor-notification.htm).

## Summary of findings relating to personal safety incidents in 2019

- There was a total of 98 injuries reported under RIDDOR, with a rate of 338 injuries per 100,000 full-time equivalent workers (FTE)
- There were no fatal injuries in 2019
- There were 25 specified injuries reported, slightly higher than the previous three years but lower than preceding years. The specified injury rate was 86 per 100,000 FTE workers in 2019, compared to 71 per 100,000 in the previous year
- There were 73 over-7-day injuries reported, compared to 86 in 2018. The rate was 252 injuries per 100,000 FTE workers, compared to 296 in 2018



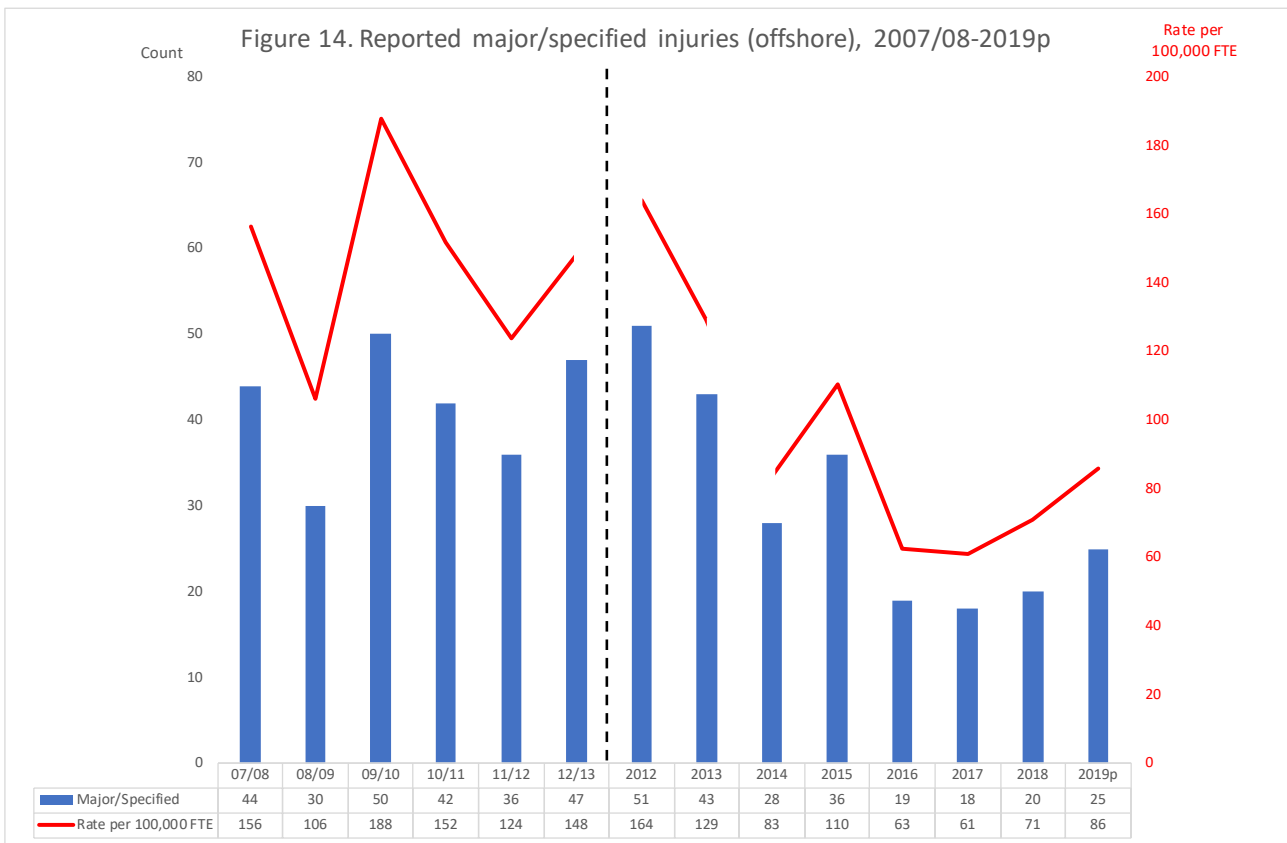
## Fatal injuries

There have been six fatalities in the last 10 years, of which:

- one fatality in 2016 (involving an employee being trapped by something collapsing)
- two fatalities in 2014 (one fall from height, and one whilst conducting routine lifeboat maintenance)
- one fatality in 2012 (associated with drowning/asphyxiation)
- two fatalities in 2011/12 (one fall from height, and one occurring during a diving operation)

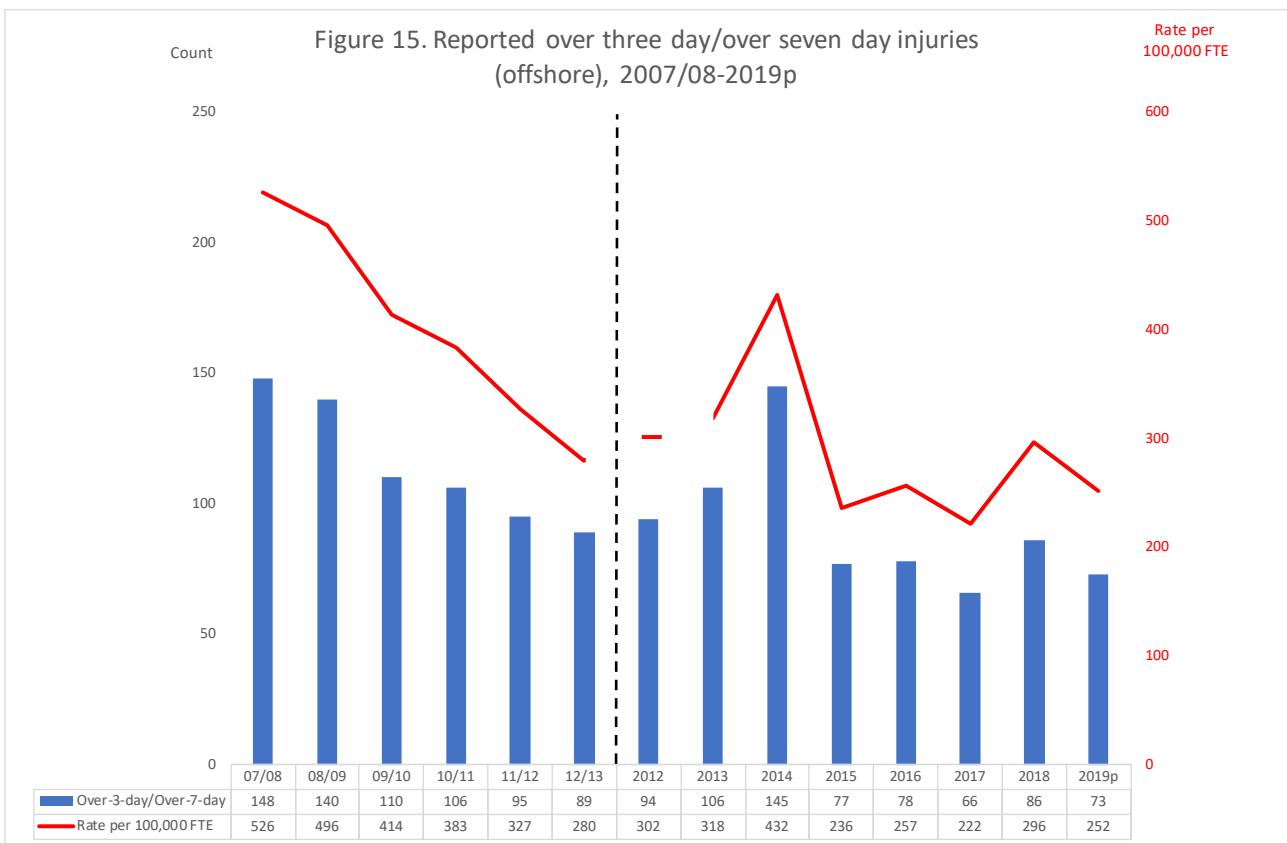


## Major/specified injuries



Source: RIDDOR (p = provisional)

## Over-three-day/Over-seven day injuries



Source: RIDDOR (p = provisional)

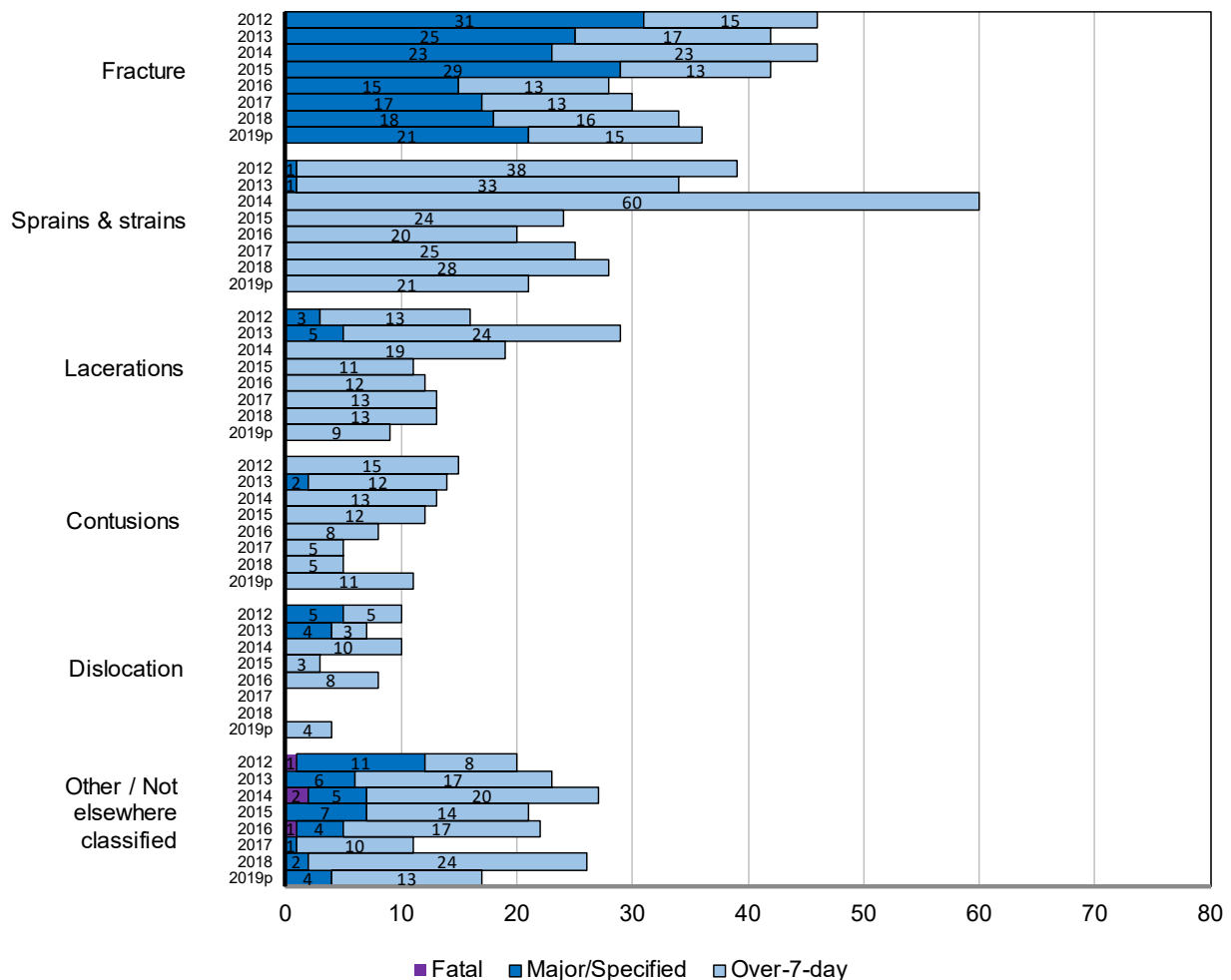
## Reported injury details

Some additional charts follow, that provide breakdowns by nature of injury, part of body injured, kind of accident, and injury severity, for the seven-year period 2012 to 2019.

### Summary of findings relating to injury details in 2019

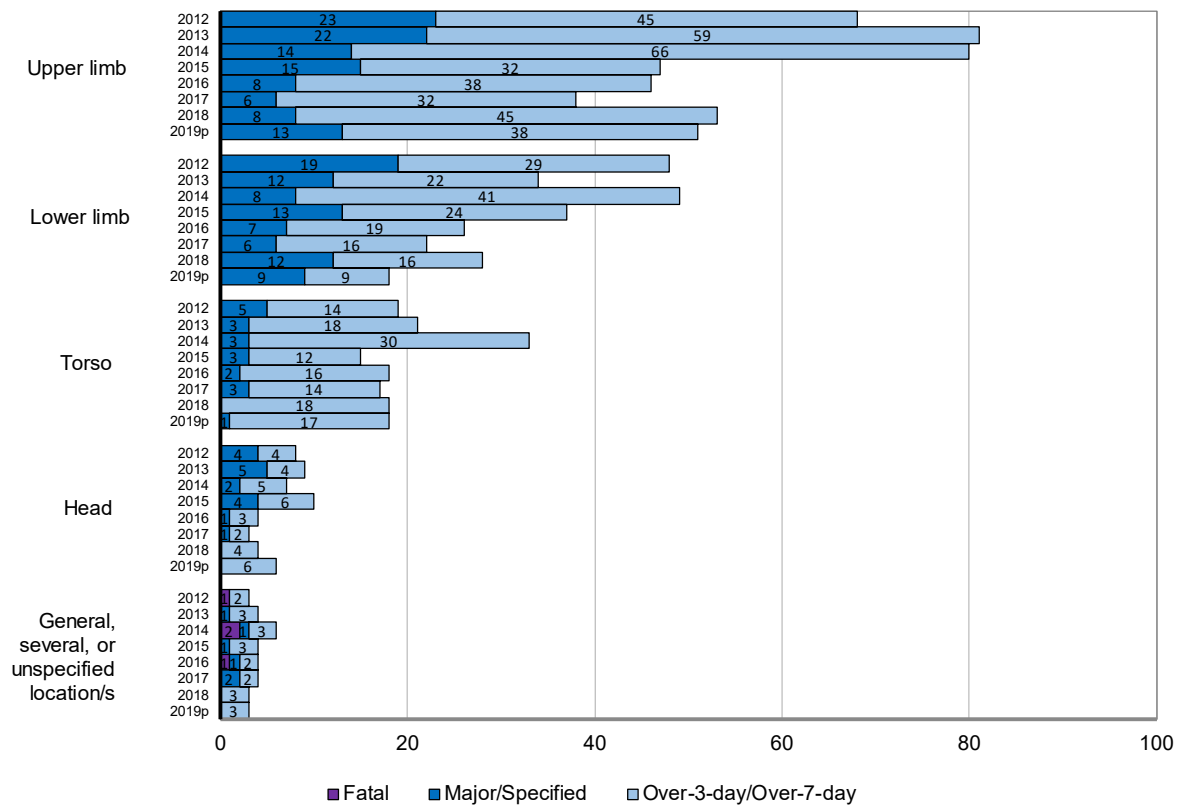
- Fractures accounted for 84% of specified injuries reported (21 of 25)
- Sprains and strains accounted for 29% of over-7-day injuries reported (21 of 73)
- Upper limb accounted for 52% of all injuries reported (51 of 98)
- Lower limb accounted for 18% of all injuries reported (18 of 98)
- In total, injuries to limbs accounted for all but one of the 25 specified injuries and 64% of over-7-day injuries (47 of 73)
- Slips, trips or falls on same level were the most common injury type and accounted for 27% of all injuries reported (26 of 98). This was followed by handling, lifting or carrying (21%; 21 of 98) and striking against something fixed or stationary (13%; 13 of 98)

Figure 16: Reported injuries (offshore) by nature of injury and injury severity, 2012 – 2019p



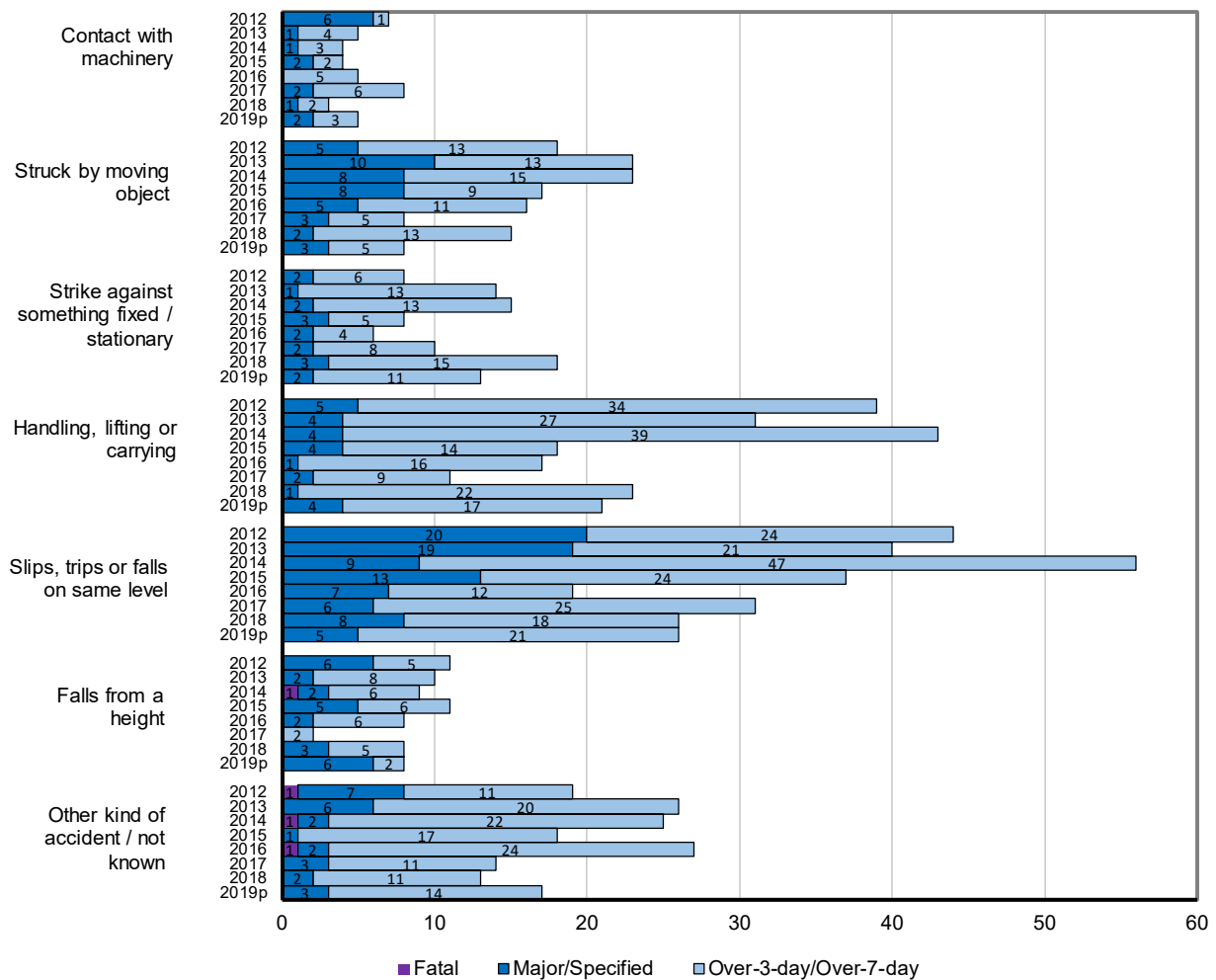
Source: RIDDOR (*p* = provisional)

Figure 17: Reported injuries (offshore) by part of body injured and injury severity, 2012 - 2019p



Source: RIDDOR (p = provisional)

Figure 18: Reported injuries (offshore) by kind of accident and injury severity, 2012 - 2019p



Source: RIDDOR (*p* = provisional)

### Comparison with other sectors

The rate of 338 injuries per 100,000 full-time equivalent (FTE) workers for the offshore sector cannot be compared directly with injury rates for other industry sectors. This is because the way in which the industry workforce sizes for the other sector injury rates are defined is very different from the way the offshore population can be estimated for this report.

HSE publishes sector specific RIDDOR reported injury rates at [www.hse.gov.uk/statistics/tables/ridind.xlsx](http://www.hse.gov.uk/statistics/tables/ridind.xlsx). These tables use Annual Population Survey estimates, with each respondent assigned to a single industry group according to the Standard Industrial Classification (SIC) code which best represents the primary activity of the workplace where they are employed.

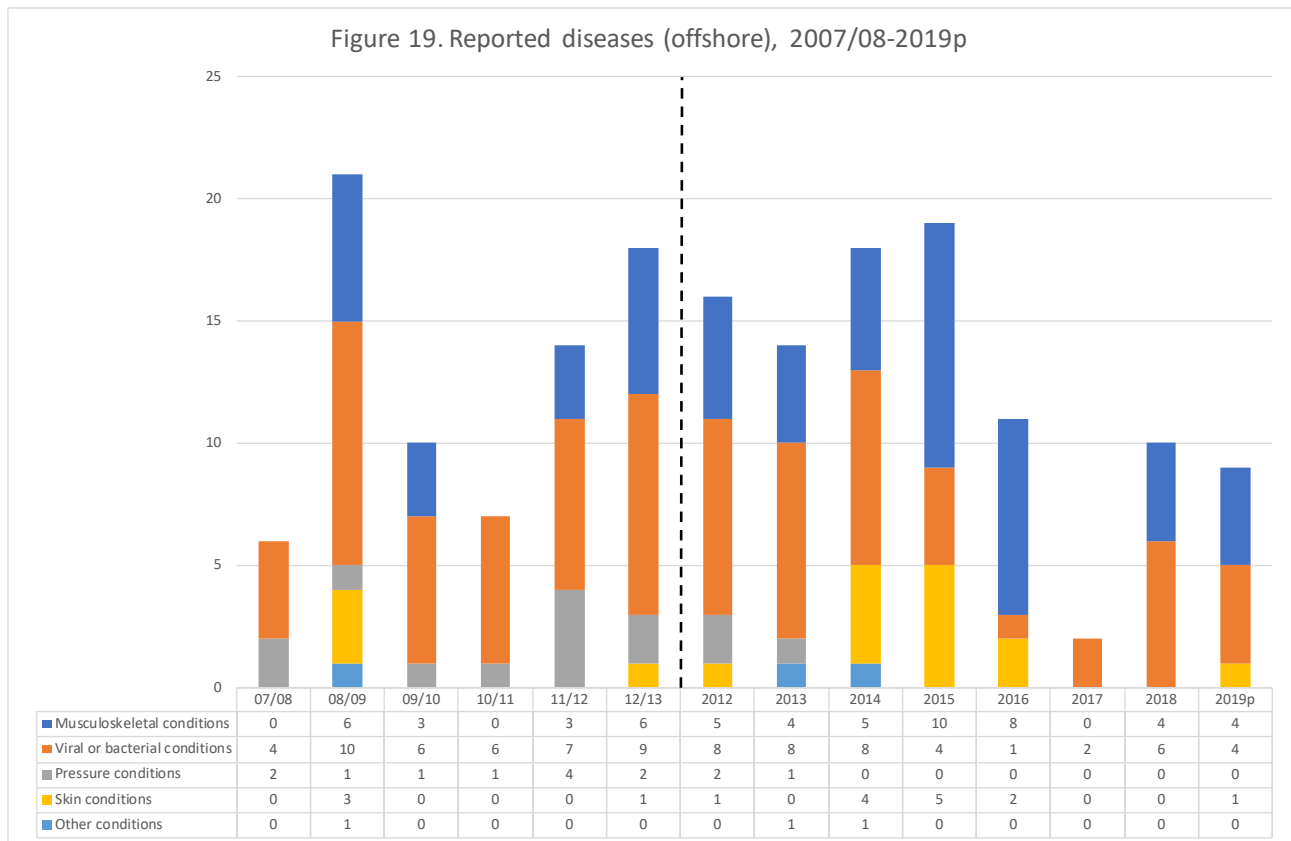
The offshore industry is not easily defined in terms of SIC codes because of an overlap with similar onshore activities. The most closely corresponding grouping is SIC Division 06 which is defined as 'extraction of crude petroleum and natural gas'. For this industry grouping, the latest RIDIND figures for 2018/19 show a rate of 966 non-fatal injuries per 100,000 employees.

The offshore population estimate used in this report instead derives from a count of Persons on Board as described in the Industry Profile section of this report. Contributing to that count will be any individual who spent a night on board an offshore installation, regardless of whether they are employed directly in the offshore sector. This includes individuals working as contractors or for other companies whose industry classification would range across a number of sectors, for example catering, maintenance, construction or education.

## Occupational diseases

Similar to other incidents reportable under RIDDOR, an analysis of the trend in reported diseases is difficult due to changes to the reporting legislation over recent years.

- There were 51 incidents of ill health reported over the period 2015 to 2019 and of these:
  - *musculoskeletal conditions*, such as hand-arm vibration syndrome, had the highest number of reports (26), followed by *viral and bacterial conditions*, such as chickenpox (17), and *skin conditions*, such as reports of occupational dermatitis (8)



# Explanatory notes

## Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)

RIDDOR places a legal duty on employers and other specified duty holders to report certain workplace incidents to the relevant enforcing authority. A number of key changes to the reporting system and legal requirements have occurred in recent years, with some impact on the resulting statistics:

- **September 2011:** the notification system used by employers changed to a predominantly online system
- **April 2012:** a legislative change introduced the requirement to report injuries to workers that lead to absence from work or inability to do their usual job, for over seven days (over-7-day injuries). This replaced the previous 'over-3-day' legal requirement
- **October 2013:** following a full-scale review, more extensive legislative changes were introduced to simplify the reporting of workplace injuries, including the introduction of 'specified injuries' to replace the previous 'major injury' category, the revision to 'type number' and description of many defined dangerous occurrence (DO) categories, and a reduction in the list of prescribed occupational diseases. These changes occurred half-way through the 2013/14 reporting year

For more information about the coverage of RIDDOR and the effect on statistics of recent changes, see [www.hse.gov.uk/statistics/sources.htm#riddor](http://www.hse.gov.uk/statistics/sources.htm#riddor).

## Injury rates

Injury rates are calculated using offshore population data from the industry's Vantage personnel tracking system. However, these rates cannot be used to compare the offshore industry with other industries; other published industry rates use a different denominator (the Annual Population Survey – APS), which is based on the Labour Force Survey (LFS).

## HCRs

In these statistics, RIDDOR reportable HCRs include:

- Unintended releases of petroleum gas or liquids from an offshore installation that either result in fire or explosion or require action to prevent or limit the consequences of a potential fire or explosion if ignited, or which have the potential to cause death or major/specified injury. These are often referred to as 'process' HCRs
- The unintentional or uncontrolled release or escape of other hydrocarbons (e.g. heli-fuel) from an offshore installation which could cause a significant risk of personal injury. These are often referred to as 'non-process' HCRs
- HCRs from wells
- HCRs from pipelines within 500m of the installation

## Energy Division, Health and Safety Executive

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