



OFFSHORE INJURY, ILL HEALTH AND INCIDENT STATISTICS 2011/2012

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OFFSHORE INJURY AND INCIDENT STATISTICS 2011/2012

**Health & Safety Executive
Hazardous Installations Directorate
Offshore Division (OSD)**

Preface

This is the eleventh report in a series of HID Statistics reports covering offshore injury and incident statistics, which continues from the previous OTO series. It is the sixteenth under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR), and presents data on injuries, diseases and incidents reported for the period 1 April 2008 to 31 March 2012.

Copies of this report can be downloaded from HSE's website at

<http://www.hse.gov.uk/offshore>

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SUMMARY

This report contains details of offshore accidents, dangerous occurrences and ill health reported to HSE from 1 April 2011 to 31 March 2012, with summarised data back to 1995/96 for comparison.

The main points are:

- 2 fatalities arising from offshore work activities regulated by HSE were reported in 2011/12, the first fatalities on offshore installations since 2006/07.
- 36 major injuries were reported, compared to 42 in 2010/11 and 50 in 2009/10.
- The major injury rate per 100,000 workers fell from last year's figure of 152 to 123.9 the second lowest rate in the reporting period. The combined fatal and major injury rate also fell to the second lowest recorded.
- 95 'over-3-day' injuries were reported, a reduction of 11 compared to the previous year. The over-3-day injury rate decreased from 383.2 per 100,000 workers to 326.9 – a decrease of 14.7% compared to 2010/11. This is 75% lower than the peak of 1293 in 1995/96.
- 409 dangerous occurrences were reported, compared to 430 in 2010/11, a decrease of 21. This is 46.5% less than the peak of 764 in 2000/01.
- The estimated offshore workforce was 29,058 compared to 27,660 in 2010/11 - an increase of 5%.
- The 'Maintenance/construction' work process environment continued to produce the highest number of 'all injuries' this year, followed by 'Deck operations'. 'Maintenance/construction and 'Production' activities produced the most 'major' injuries in 2011/12.
- 'Struck by moving objects' and 'Slips, trips and falls' produced the most injuries in a single category followed by 'Injuries from handling, lifting or carrying' and 'Falls from height'. These four categories account for 80% of all injuries. Injuries from slips, trips and falls, including falls from height, account for 47.2% of all major injuries. Approximately 92% of major injuries were to limbs.
- The ratio of over-3-day to major injuries increased by 3.5% in 2011/12 to 2.64. This reflects the reduction in the proportion of major injuries among the total of all reportable injuries compared to the previous year and continues the overall downward trend in reportable injuries over the last five years.
- This year the three-year rolling average of injury rate for combined fatal and major injuries rose slightly compared to last year though overall there remains a continuation of the overall downward trend over the last ten years. The three-year rolling average rate for over-3-day injuries continued to decline.

INTRODUCTION

1.1 This report covers the period from April 2011 to March 2012, with summary data from 1995/96 included for comparison. It is based on incidents reported under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR)¹. For offshore operations, this covers incidents directly affecting offshore installations or workers or visitors on offshore installations². It also includes certain diving operations in connection with operations on an offshore installation³.

1.2 Commentary is provided on the statistics as a whole as well as more detailed analysis of major injuries. Annex 1 contains tables and graphs of the 2011/12 statistics.

1.3 An additional commentary is provided at Annex 2 relating to monitoring activities undertaken by the UK offshore oil and gas industry's representative body Oil & Gas UK (OGUK) in respect of Key Performance Indicators.

1.4 Provisional headline data on fatalities, injuries, and other reportable incidents was published on the HSE website in the Offshore Safety Statistics Bulletin 2011/2012 (<http://www.hse.gov.uk/offshore/statistics.htm>) in August 2012. This data was based on analysis of data conducted at quarterly intervals throughout the operating year. Data in the bulletin is regarded as provisional due to the potential for late submission or amendment of reported incident data. The data contained in this full annual report for 2011/2012 has undergone a detailed review for the whole operating year and contains a few minor amendments to the headline statistics contained in the bulletin.

1.5 OSD commissioned a review of the pre-1996/97 data to reclassify injuries from that period in line with the RIDDOR requirements. All data in this report now conforms to the RIDDOR classification. Care should be taken in making comparisons, particularly where small numbers of incidents are involved, to avoid reading too much significance into variations.

¹ Reportable injuries and dangerous occurrences are defined in regulation 3 of RIDDOR. Further description of 'Major Injuries' is provided in RIDDOR under Schedule 1. Reference to over-3-day injuries in this annual report includes all other RIDDOR reportable injuries that are less severe than Major Injuries. Description of reportable Dangerous Occurrences is provided in Schedule 2.

² The report does not include incidents arising from marine activities that are not directly connected with offshore operations (e.g. vessels or rigs in transit) or air transport activities (including transport to, from or between installations), except incidents affecting helicopters whilst located on an installation which are included if they occur. The report does include offshore wells and most activities in connection with them, as well as offshore pipelines, pipeline works and certain activities in connection with pipeline works. Incidents on offshore wind farms are included.

³ Whilst HSE Offshore Division retains responsibility for all aspects of offshore diving and inshore commercial diving, statistics stated in this report are for offshore diving and diving support activities associated with an offshore installation only.

COMMENTARY

Population

2.1 Injury rates are calculated using offshore population data from the industry's Vantage personnel tracking system. Up to and including 2003/04, data from the Inland Revenue was used. For 2011/12, the estimated offshore population (based on total number of hours worked divided by 2000 hours per worker year) was 29,058, a 5% increase compared to the previous year's figure of 27,660.

Fatal injuries

2.2 Two fatalities occurred in 2011/12. The first occurred in Q1, due to a fall from height during a work shift. The second, a fatality during a diving operation which was reported as a recordable fatality in Q3, should be considered as still provisional with investigations continuing.

Major injuries

2.3 The number of major injuries (36) decreased by six over the previous year. The major injury rate per 100,000 workers fell 18.5% to 123.9. The combined number of fatal and major injuries also fell by four to 38 resulting in a reduction in the combined fatal and major injury rate per 100,000 workers to 130.8.

Over-3-day injuries

2.4 The number of over-3-day injuries (95) decreased 10.4% compared to 2010/11. The over-3-day injury rate also decreased by 14.7% to 326.9. This is a new low figure reflecting the continuing reduction in the number of injuries in a consistently high offshore working population.

Ratio of over-3-day to major injuries

2.5 Table 4 and Figure 5 show the ratio of over-3-day to major injuries for the last fifteen years. The significant rise in the ratio in 2008/09 was followed by a drop in 2009/10 but has shown a return to improvement in 2011/12. Overall there has been a decline in the total number of reportable injuries in 2011/12, however it should be noted that conclusions derived from the ratio should be tempered by the extent to which over 3-day injuries might have had the potential to lead to major injuries if less fortunate circumstances had occurred and vice versa.

Three-year rolling averages

2.6 Three-year rolling averages smooth out variations and give a clearer picture of overall trends - see Tables 3 and 3a and Figures 4 and 4a. The three-year rolling average for the combined number of fatal and major injuries showed a small increase (6.4%) in 2011/12 reflecting the sharp rise in major injuries in 2009/10 included in this 3 year period. The average for the fatal and major injury rate, which takes account of the working population, has also risen 5.3% over the last 12 months. The rolling average for over-3-day injuries has fallen by 12.6% which is similar to the reduction in the over-3-day injury rate rolling average which has shown a 13.3% fall to a new low of 373.4 per 100,000 workers. This reflects the consistent fall in over-3-day injuries over the last five years.

Details of injuries

Nature of injury

2.7 Table 5 categorises injuries by severity and nature of injury, and Figures 6 and 6a illustrate their distribution. The most frequent types of all injuries were fractures (29.3% - 39 injuries), sprains and strains (27% – 36 injuries), lacerations (15% - 20 injuries) and contusions (10.5% - 14 injuries). For major injuries, fracture was the most commonly occurring type, with 23 incidents which represents 64% of all major injuries (36). For over-3-day injuries, sprains and strains were the most common type of injury, with 35 incidents (36.8% of over-3-day injuries). Other frequent types of over-3-day injuries included lacerations (17 incidents – 17.9%), fractures (16 incidents – 16.8%) and contusions (14 incidents – 14.7%).

Part of body injured

2.8 Table 6 and Figures 7 and 7a provide information on the site of injury. The upper limb⁴ accounted for 44.4% (59) of all injuries for 2011/12 and the lower limb accounted for 34.6% (46). The torso accounted for 14.3% (19) of all injuries. The number of head injuries (6) accounted for 4.5% of the total. Injuries to the limbs accounted for 33 (91.7%) of all major injuries.

For over-3-day injuries, injuries to the limbs accounted for 72 injuries (75.8% of over-3-day injuries). There were 43 incidents (45.3% of over-3-day injuries or 59.7% of over-3-day limb injuries) affecting the upper limbs and 29 (30.5% of all over-3-day injuries) to the lower limbs. Of all upper limb injuries, 31 (52.5%) were attributed to injury to one or more fingers or thumbs (of which 90% were over-3-day injuries). Injuries to the torso accounted for 17.9% of all over-3-day incidents, with 17 incidents reported.

Kind of accident

2.9 Table 7 and Figures 8 and 8a record the breakdown of the kind of accident against severity of injury. 28 (21%) of all injuries were associated with handling, lifting or carrying activities, 31 (23.3%) from being struck by moving, flying or falling objects, of which 7 resulted in major injury. 31 incidents (23.3% of all injuries) were as a result of slips, trips or falls at the same level and a further 17 (14.1%) involved a fall from height, resulting in a total 48 (36.1%) of all injuries being associated with slips, trips and falls of all types.

Age of injured person

2.10 Table 8 and Figures 9 and 9a show the age of the injured persons. The majority of injuries (60.9%) were spread between ages ranging from 25 to 49 years of age, with the 30-34 year band recording the highest number of injuries with 21 (15.8%) incidents. The 30-34 year age band also recorded the highest number of major injuries (7 incidents, 19.4% major injuries) closely followed by 40-44 year band with 6 incidents (16.7% major injuries).

⁴ Upper limb includes the fingers and the thumb, hand and wrist.

Work Process Environment

2.11 Table 9 and Figures 10 and 10a describe the type of activity being carried out when the incident occurred. Work Process Environment categories were introduced for offshore incidents from April 2001. Prior to that, categories under 'operation' were used. Any direct comparisons of these categories should therefore be used with care. Most injuries occurred in the 'maintenance and construction' environment (50 incidents, or 37.6% of all injuries). Along with the production activity, maintenance and construction had the most major injuries (11 incidents each, or 30.5% of all major injuries - a small reduction compared to last year (16), followed by deck operations and drilling which produced 7 (19.4%) and 5 (13.9%) major injuries respectively.

Agent of Accident

2.12 Table 10 and Figures 11 & 11a give information on the agent of accident against severity of injury. 49.6% of all injuries (66 incidents) involved 'surfaces, structures and building access equipment'. 25 incidents (18.8% of the total) involved 'conveying, lifting storage systems and hand-held pushed/pulled transport equipment'. The majority of major injuries involved two categories, 'surfaces, structures and building access equipment' (52.8%) and 'conveying, lifting storage systems and hand-held pushed / pulled transport equipment' (16.7%). Hand held tools and equipment accounted for 8.3% of major injuries.

Reportable Diseases

2.13 Table 11 indicates there were 14 cases of disease or ill health reported in 2011/12, compared with 7 in 2010/11. There were 6 cases of chickenpox , 4 cases of decompression illness, 3 cases of hand-arm vibration and 1 case of scarlet fever.

Dangerous Occurrences

2.14 The total of 409 reported dangerous occurrences (DO) for 2011/12 represents a modest 4.9% decrease compared to the figure for 2010/11 (430 incidents). The more frequently occurring types of dangerous occurrences reported in 2011/12 were:

- DO type 01 (failure of lifting machinery, etc.) with 17 events accounted for 4% of incidents
- DO type 13 (well related activities) accounted for 23 events - 5.6%
- DO type 14 (pipeline related incidents) accounted for 32 events - 7.8%
- DO type 73 (release of hydrocarbon) accounted for 31.1% of all incidents (132).
- DO type 74 (Fire or explosion not linked to a loss of petroleum hydrocarbon) decreased to 29, representing 6.8% of the total.
- DO type 77 (station-keeping, dropped objects and weather) accounting for 30.9% (131).

Figure 12 provides a summary of hydrocarbon release dangerous occurrences by severity with Figures 12(a) and 12(b) showing the number of well related and pipeline incidents respectively.

2.15 Figures 13,14,15 and 16 provide a summary of dangerous occurrences for types DO 01 (Failure of lifting machinery), DO 78/79 (Collision/Possible collision offshore), DO 80/81 (Subsidence or collapse of seabed/Loss of stability or buoyancy) and DO 82 (Evacuation of an installation) over a ten year period.

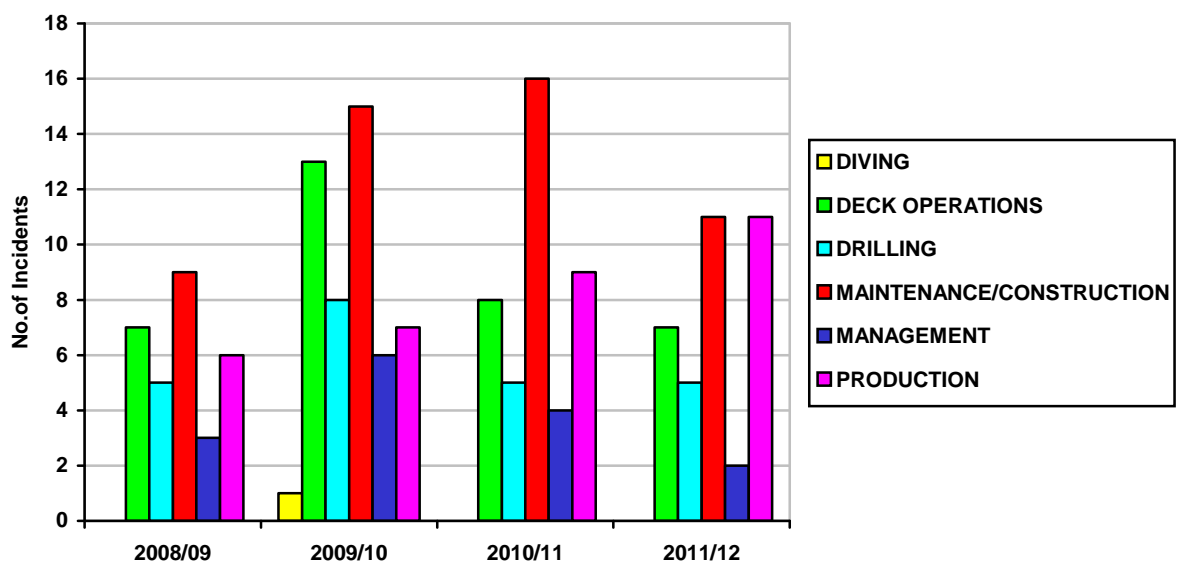
- Fig 13 shows incidents involving the failure of lifting machinery to be in a steady decline since 2001/02. The 2011/12 figure (17) is the lowest recorded over the decade and is a 37% reduction compared to 2010/11 (27). Overall type DO 01 accounted for 4% of all dangerous occurrences in 2011/12.
- Fig 14 shows the split between collision and possible collision incidents offshore. Collisions account for the majority of these incidents since 2001/02 at 68 compared to only 19 for possible collisions over the same period. The highest level reported was in 2007/08 (12) with a gradual reduction since, falling to one of the lowest levels in 2011/12 (5).
- DO type 80 (Subsidence or collapse of seabed) and DO type 81 (Loss of stability or buoyancy) are illustrated in Fig 15. The total of both types reported since 2001/02 is 8 with 7 of these occurring 2008/09 onwards and this after several years without incident.
- Fig 16 shows the number of installation evacuations (DO type 82) reported since 2001/02, a total of 30 to 2011/12. Early years show relatively low figures with modest reductions in incidents to 2006/07. Of the 10 year total (30), 21 occurred from 2007/08 an average of approx 1% of the total of dangerous occurrences each year.

FURTHER ANALYSIS OF MAJOR INJURIES

3.1 This section compares the numbers of reported major injuries for the last four years and examines the links between the main data categories and other aspects.

Major Injuries by Work Process Environment

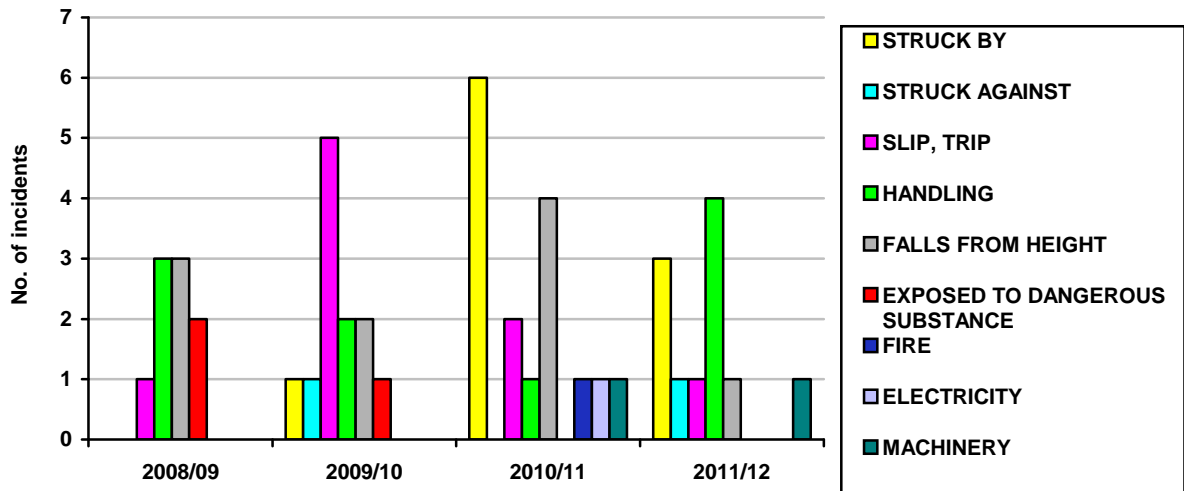
3.2 The chart below shows the numbers of reported major injuries over the last four years (158), sorted by the main work process environments. 'Maintenance/Construction' injuries (51) and 'Deck Operations' (including air and sea transport) injuries (35) have dominated the last 4 years with 54.4% of all major injuries, followed by 'Production' (33) and 'Drilling' (23) activities which account for a further 35.4%.



Major Injuries in Offshore Maintenance & Construction

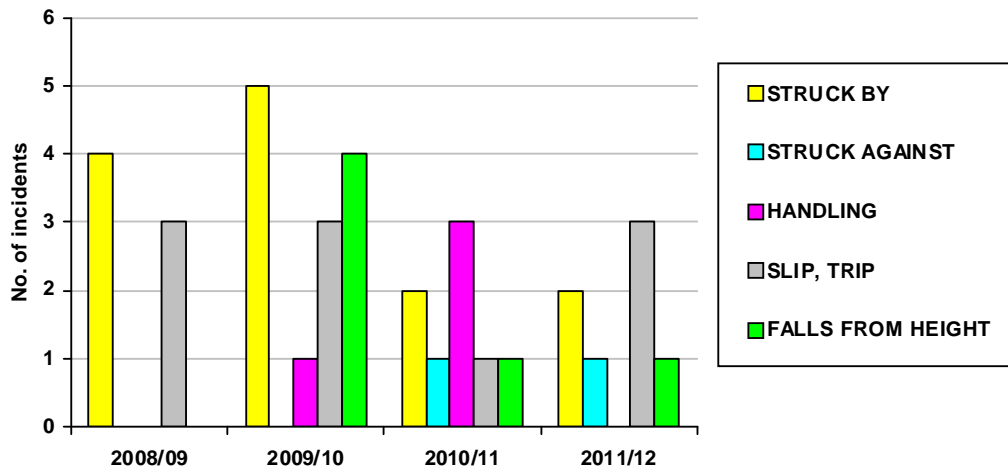
3.3 The chart below shows the relationship between 'offshore maintenance/construction' and a subset of common kinds of accident.

The total number of major injuries in maintenance and construction activities (11) for 2011/12 fell by five compared to the previous year (16). The dominant kind of incident was handling, lifting or carrying (4) followed by struck by moving, flying or falling objects (3) with one incident for each of the following, falls from height, slips, trips and falls, contact with machinery and struck against. Five injuries resulted in fractures and six incidents involved injury to ankles, finger, hand, trunk and upper limb.



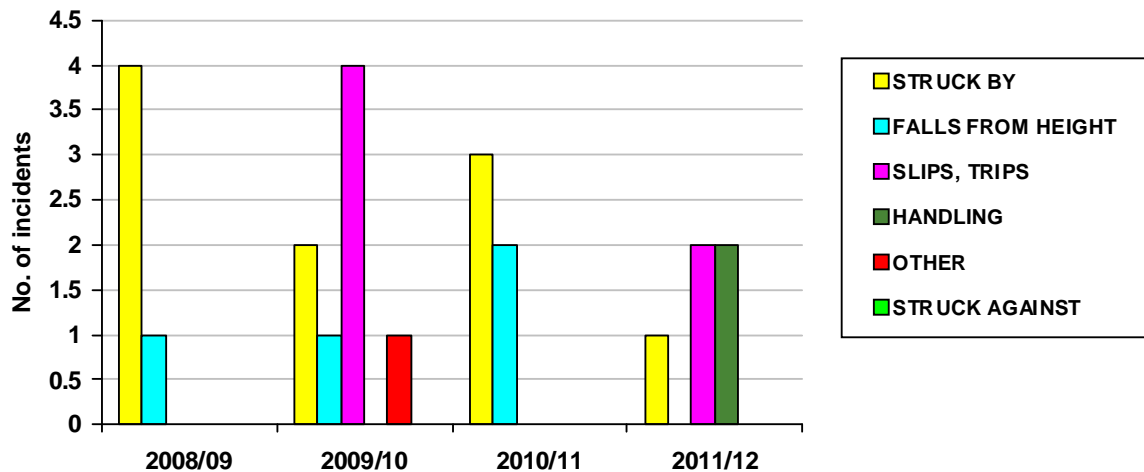
Major Injuries in Offshore Deck Operations (including Transport)

3.4 The chart below shows the links between offshore deck operations and kind of accident. Major injuries in this discipline (7) fell by 1 from last year and represent 19% of all major injuries for the year. Historically, deck operations have been a significant contributor to major injury totals, with deck operations injuries occurring over the last four years accounting for 22% of all major injuries. In 2011/12, six major injury incidents arising from deck operations resulted in fractures with the remaining one being a laceration.



Major Injuries in Offshore Drilling / Workover

3.5 The chart below shows the links between 'offshore drilling / workover' and kind of accident.



Major injuries in this discipline account for around 15% of all reported major injuries over the 4 year period. The total for 2011/12 was five, with 'slips, trips and falls' and 'handling, lifting or carrying' being the largest categories each having two instances. Three injuries associated with drilling and workover resulted in fractures, whilst a further two resulted in dislocation and finger amputation.

Number of major injuries

3.6 36 major injuries were recorded, 6 less than 2010/11. The injury rate fell by 18.5%, reflecting the reduction in the number of major injuries compared to the previous year's figure and the rise in hours worked.

3.7 The 'maintenance and construction' discipline continues to be a leading contributor to major injuries with 11 (30.6%) such injuries occurring in 2011/12 compared to 16 (38%) the previous year. There were reductions in the number of major injuries in all but one WPE category with 'production' being the only increase, rising from 9 (21%) in 2010/11 to 11 (30%) in 2011/12.

Age of injured person

3.8 The average age of injured person for all offshore major injuries was around 40 years of age over the four-year period.

Nature and Site of injury

3.9 'Fracture' continues as the most frequently recorded single kind of major injury accounting for 64% of major injuries in 2011/12. Fracture is also the highest occurring outcome of all injuries (i.e. including over-3-day injuries) with 29% of all injuries. The majority of fractures classed as major injuries were to the hand/wrist or foot/ankle or limbs. Amputations accounted for two major injuries, all involving loss of finger parts.

Kind of Accident

3.10 The single main category for 'kind of major accident' during 2011/12, was 'slips trips and falls' with 13 incidents (36% major injuries) followed by 'handling, lifting or carrying' and 'struck by moving, flying or falling objects' each with 7 incidents (19% of major injuries). Taken together, slips trips and falls of all types accounted for a total of 17 major injuries (47% major injuries).

Other trends

3.11 Both the number of major injuries and over-3-day injuries decreased in 2011/12 (36 and 95 compared to the previous year 42 and 106 respectively). Overall including the two fatalities this year the total number of all reportable injuries for the year is therefore down by 16 (10.8%) compared to the previous year.

HYDROCARBON RELEASES (HCRs)

4.1 This section provides outline details relating to HCRs between 1998/99 and 2011/12. Fig. 12 shows the split between releases described as 'Minor' and those that are described as either 'Major' or 'Significant', based on severity classification definitions⁵ agreed with the offshore industry.

4.2 RIDDOR reportable HCRs are 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 injury. During 2011/12 two releases (i.e. 1.5% of all reported HCRs) were reported as ignited events.

4.3 Detailed supplementary data (upon which Fig 12 is based) relating to HCRs reported under RIDDOR are voluntarily reported to HSE by offshore operators on Form OIR/12. Only those releases reported via Form OIR/12 are shown in Figure 12. Note that only releases occurring on an installation or within the 500 meter safety zone surrounding the installation are covered by the reported data in this report.⁶

4.4 The details below are based on dangerous occurrences involving a release of hydrocarbon and are predominantly dangerous occurrence code 73 events. However a few events reported under other dangerous occurrence codes may also involve a release of hydrocarbon for which a Form OIR/12 has been submitted and which are therefore included in the details below. The reported number of hydrocarbon releases (DO73) shown on Table 12 **may** therefore differ slightly to the numbers reported below and in Figure 12.

4.5 Few reported HCRs gave rise to incidents which could, in whole or in part, be considered as "oil spills"⁶. The number of the liquid based HCR incidents where a quantity of hydrocarbon liquid was released to the sea in 2011/12 was very small - seven in total – with the amounts ranging from minimal to 19000kg.

4.6 The combined number of major and significant (56) HCRs in 2011/12 was a notable reduction compared to the previous year (73) and are the lowest reported since records began.

4.7 The number of minor releases fell by 18.3% in 2011/12 (76) compared to 2010/11 (93).

⁵ 'Severity Classification' guidance for Major, Significant and Minor HCRs can be found on the HSE website at https://www.hse.gov.uk/hcr3/help/help_public.asp

⁶ Dept. of Energy and Climate Change (DECC) Petroleum Operations Notice 1 (PON1) report form is used by operators to report all releases of oils and chemicals of whatever size to sea from offshore installations and pipelines under the Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (OPPC)(as amended) and Offshore Chemicals Regulations 2002 (OCR) (as amended) to DECC and other authorities. For details of spills to sea refer to DECC.

4.8 Overall, the total number of releases of all severities reported on Form OIR/12 in 2011/12 (132) fell by 20.5% compared to 2010/11 (166).

4.9 Hydrocarbon gas releases accounted for 71% of all major and significant releases in 2011/12 compared to 64.4% the previous year. There was one reported major gas releases in 2011/12 (defined as being greater than 300kg gas and having the potential to quickly impact outside the local area and be likely to cause a 'Major Accident' as defined in the Offshore Installations (Safety Case) Regulations 2005). Larger gas releases pose a significant risk of escalation to a more serious event, if ignited, due to the greater migration potential of gas clouds to other areas of an installation compared to an accumulated (pool of) liquid release. 21.4% of the combined total of all types of major and significant HCRs were major or significant gas releases greater than 25kg and 7% were gas releases greater than 100kg. The classification of a hydrocarbon release incident as 'Significant' or 'Major' implies the potential for that release, if ignited, to directly cause or escalate to an event severe enough to be viewed as a 'Major Accident'. Emergency action is normally required to be taken to limit the potential consequences of ignition of a reportable leak of hydrocarbon.

OTHER KEY INDUSTRY PERFORMANCE INDICATORS (KPIs)

Hydrocarbon releases are regarded as potential precursors to major accidents if ignited, and HSE monitors the number of major and significant hydrocarbon releases as a KPI of the offshore industry's effectiveness of process health and safety management on offshore installations.

Annex 2 provides supplementary information relating to activity that the offshore industry representative body Oil and Gas UK have been undertaking in respect of additional KPI monitoring activities. This monitoring activity is not undertaken by HSE and is included in this report for information only in the context of providing a more complete picture of UK offshore KPI monitoring processes undertaken by both HSE and the industry.

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**TABLE 1 – SUMMARY OF INJURIES AND DANGEROUS OCCURRENCES
APRIL 1995 – MARCH 2012**

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12
Fatalities	5	2	3	1	2	3	3	0	3	0	2	2	0	0	0	0	2
Major injuries	42	44	74	74	53	53	47	64	48	48	50	39	44	30	*50(1)	*42(3)	36
Total fatalities & major injuries	47	46	77	75	55	56	50	64	51	48	52	41	44	30	50(1)*	*42(3)	38
Over-3-day injuries	375	302	291	245	193	177	187	120	103	111	125	164	148	140	*110(1)	*106(4)	*95(8)
Total Injuries	422	348	368	320	248	233	237	184	154	159	177	205	192	170	*160(2)	*148(7)	*133(8)
Dangerous occurrence	528	569	649	693	647	764	661	635	530	558	491	485	509	477	434	430	409

- Figure in brackets are offshore windfarm incidents included in the total

**TABLE 2 – I NJURY RATES PER 100,000 WORKERS
APRIL 1995 – MARCH 2012**

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12
Workforce	29,003	26,853	23,000	25,500	19,000	23,330	23,206	20,619	18,793	18,940	23,072	28,176	28,132	28,224	26,598	27660	29058
Fatal injury rate	17.2	7.4	13.0	3.9	10.5	12.9	12.9	0	16.0	0	8.7	7.1	0	0	0	0	6.9
Major injury rate	144.8	163.9	321.7	290.2	278.9	227.2	202.5	310.4	255.4	253.4	216.7	138.4	156.4	106.3	188.0	152	123.9
Fatal + major injury rate	162.1	171.3	334.8	294.1	289.5	240.0	215.5	310.4	271.4	253.4	225.4	145.5	156.4	106.3	188.0	152	130.8
Over-3-day injury rate	1293	1124.6	1265.2	960.8	1015.8	758.7	805.8	582.0	548.1	586	541.8	582.1	526.1	496	413.6	383.2	326.9

**TABLE 3 – THREE-YEAR ROLLING AVERAGE OF NUMBER OF INJURIES
APRIL 1995 – MARCH 2012**

	1995/96 1996/97	1996/97 1998/99	1997/98 1999/00	1998/99 2000/01	1999/00 2001/02	2000/01 2002/03	2001/02 2003/04	2002/03 2004/05	2003/04 2005/06	2004/05 2006/07	2005/06 2007/08	2006/07 2008/09	2007/08 2009/10	2008/09 2010/11	2009/10 2011/12
Total fatalities + major injuries	56.7	66	69	62	53.4	56.7	55	54.3	50.3	47	45.7	38.3	41.3	40.7	43.3
Over-3-day injuries	323	279	243	205	185.7	161.3	136.7	111.3	113	133.3	145.7	150.7	132.7	118.7	103.7

**TABLE 3a THREE-YEAR ROLLING AVERAGE OF INJURY RATES PER 100,000 WORKERS
APRIL 1995 – MARCH 2012**

	1995/96 1996/97	1996/97 1998/99	1997/98 1999/00	1998/99 2000/01	1999/00 2001/02	2000/01 2002/03	2001/02 2003/04	2002/03 2004/05	2003/04 2005/06	2004/05 2006/07	2005/06 2007/08	2006/07 2008/09	2007/08 2009/10	2008/09 2010/11	2009/10 2011/12
Average workforce	26,285	25,118	22,500	22,610	21,845	22,385	20,873	19,451	20,268	23,396	26,460	28177	27651	27494	27772
Fatal + major injury rate	216.9	262.8	306.7	274.2	247.2	254.6	263.5	277.6	248.3	200.9	172.7	136.1	149.4	148	155.9
Over-3-day injury rate	1228.8	1110.8	1080.0	906.7	851.5	719.2	656.4	572.4	557.5	569.9	550.6	534.7	479.9	430.9	373.4

**TABLE 4 – RATIO OF OVER-3-DAY TO MAJOR INJURIES
1997/98 – 2011/12**

	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12
MAJOR	74	74	53	53	47	64	48	48	50	39	44	30	50	42	36
OVER-3-DAY	291	245	193	177	187	120	103	111	125	164	148	140	110	106	95
Ratio	3.9	3.3	3.6	3.3	4	1.9	2.14	2.31	2.5	4.2	3.36	4.67	2.2	2.52	2.64

**TABLE 5 – SEVERITY OF INJURY AND NATURE OF INJURY
2011/12**

NATURE OF INJURY	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Amputation	0	2	0	2
Contusion	0	0	14	14
Dislocation	0	5	2	7
Fracture	0	23	16	39
Laceration & open wound	0	3	17	20
Loss of sight	0	0	2	2
Injuries of more than one of the other natures	0	1	2	3
Injuries not classified elsewhere	2	1	2	5
Sprains & strains	0	1	35	36
Superficial injury	0	0	3	3
Burn	0	0	2	2
Total	2	36	95	133

**TABLE 6 – SEVERITY OF INJURY AND PART OF BODY INJURED
2011/12**

SITE OF INJURY	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Eye	0	0	3	3
Other parts of face	0	0	2	2
Head excluding face	0	1	0	1
Several locations of head	0	0	0	0
TOTAL: HEAD	0	1	5	6
Neck	0	0	3	3
Back	0	0	9	9
Trunk	0	2	4	6
Several locations of torso	0	0	1	1
TOTAL: TORSO	0	2	17	19
One or more finger(s) or thumb(s)	0	3	28	31
Hand	0	2	6	8
Wrist	0	5	1	6
Rest of upper limb	0	6	6	12
Several locations of upper limb	0	0	2	2
TOTAL: UPPER LIMB	0	16	43	59
One or more toes	0	0	3	3
Foot	0	4	3	7
Ankle	0	7	14	21
Rest of lower limb	0	6	9	15
Several locations of lower limb	0	0	0	0
TOTAL: LOWER LIMB	0	17	29	46
Several locations	0	0	1	1
General locations	0	0	0	0
Unspecified locations	2	0	0	2
GRAND TOTAL	2	36	95	133

**TABLE 7 – SEVERITY OF INJURY AND KIND OF ACCIDENT
2011/12**

KIND OF ACCIDENT	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Contact with moving machinery or material being machined	0	2	7	9
Struck by moving, including flying or falling object	0	7	24	31
Struck against something fixed or stationary	0	3	10	13
Injured whilst handling, lifting or carrying	0	7	21	28
Slip, trip or fall on same level	0	13	18	31
Fall from height (number over 2m in brackets)	1	4	12	17
Exposed to, or in contact with, a harmful substance	0	0	3	3
Exposed to fire	0	0	0	0
Contact with electricity	0	0	0	0
Other / not recorded	1	0	0	1
TOTAL	2	36	95	133

TABLE 8 – SEVERITY OF INJURY AND AGE OF INJURED PERSON – 2011/12

AGE OF INJURED PERSON	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Less than 20		0	1	1
20 – 24		1	9	10
25 – 29		3	12	15
30 – 34	1	7	13	21
35 – 39	1	2	13	16
40 – 44		6	9	15
45 – 49		2	12	14
50 – 54		5	3	8
55 – 59		5	11	16
60 – 64		2	6	8
65 – 69		0	0	0
Not recorded		3	6	9
TOTAL	2	36	95	133

TABLE 9 – SEVERITY OF INJURY AND WORK PROCESS ENVIRONMENT – 2011/12

WORK PROCESS ENVIRONMENT	SEVERITY OF IN JURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
DECK OPERATIONS	0	7	23	30
DRILLING	1	5	11	17
MANAGEMENT	0	2	9	11
PRODUCTION	0	11	10	21
MAINTENANCE / CONSTRUCTION	0	11	39	50
OFFSHORE DIVING*	1	0	3	4
TOTAL	2	36	95	133

* HSE Offshore Division retains responsibility for all aspects of offshore diving and inshore diving. Statistics stated are for offshore diving and diving support activities only.

TABLE 10 – SEVERITY OF INJURY AND AGENT OF ACCIDENT – 2011/12

AGENT OF ACCIDENT	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Surfaces, structures and building access equipment	1	19	46	66
Systems for the distribution of materials or substances	0	1	0	1
Hand held tools and equipment	0	3	7	10
Systems for energy and storage, motors	0	0	0	0
Conveying, lifting storage systems and hand-held pushed / pulled transport equipment	0	6	19	25
Machines and equipment – not hand tools	0	2	6	8
Materials, objects, products, machine components	0	2	8	10
Substances and radiation	0	0	2	2
Safety devices and equipment	0	0	2	2
Furniture, washing and bathing facilities, office and personal equipment	0	1	4	5
Leisure equipment	0	0	1	1
People	0	0	0	0
Physical phenomena and natural elements	0	2	0	2
Other, not known	1	0	0	1
TOTAL	2	36	95	133

**TABLE 11 – ILL HEALTH INCIDENTS
APRIL 1998 – MARCH 2012**

DESCRIPTION	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	TOTAL
Decompression illness	3	2	1	5	4	1		2	8	2	1		1	4	34
Barotrauma			1			1						1			3
Cramp repetitive						1					1				2
Beat knee		1				1					1				3
Inflammation of tendons	1	1	1	2	1										6
Hand-arm vibration			1						2		4	3		3	13
Occupational dermatitis	4	2	5			2	1				3				17
Chickenpox	6	7	10	6	13	6	8	6	9	4	7	4	5	6	97
Food poisoning	1*	1						3	2**		1				8
Malaria						1									1
Meningitis	1		1								1				3
Rubella		1									1				2
Mumps					1		1	6			1	1	1		11
Scarlet fever							1							1	2
Measles								1							1
Legionellosis												1			1
TOTAL	16	15	20	13	19	13	11	18	21	6	21	10	7	14	204

* This incident resulted in twelve people being affected

** One incident involved 21 workers, the other incident affected 16 workers

**TABLE 12 – DANGEROUS OCCURRENCES BY TYPE
2011/12**

TYPE	DESCRIPTION	NUMBER
01	Failure of lifting machinery etc.	17
02	Failure of pressure systems.	3
03	Fail freight	1
05	Electrical short circuit or overload.	4
07	Release biological agent	1
08	Radiation.	0
09	Malfunction of breathing apparatus.	4
10	Diving operations.	10
11	Collapse of scaffolding.	1
13	Well operations.	23
14	Pipelines and pipeline works.	32
73	Release of hydrocarbon.	132
74	Fire or explosion other than hydrocarbon.	29
75	Release or escape of a dangerous substance other than hydrocarbon.	8
76	Collapses.	3
77	<ul style="list-style-type: none"> • Failure of equipment required to maintain a floating installation on station. • Objects dropped on an installation, attendant vessel or into water. • Weather damage. 	131
78	Collision between a vessel or aircraft and an installation.	5
79	Possible collision offshore.	0
80	Subsidence or collapse of seabed.	1
81	Loss of stability or buoyancy.	2
82	Evacuation of an installation.	2
83	Falls into water.	0
	TOTAL	409

Table 12(a) - WELL RELATED DANGEROUS OCCURRENCES 2011/12

TYPE	DESCRIPTION	NUMBER
13(a)	Uncontrolled flow from a well	3
13(b)	Close BOP to control flow	14
13(c)	Unanticipated H ₂ S released	1
13(d)	Precautionary measures following failure to maintain minimum separation between wells	0
13(e)	Mechanical failure of a Safety Critical Element (SCE) of a well	5
Other	Other	1
	Total	23 (8)

Number in brackets relate to total well related incidents including those recorded under other dangerous occurrence type codes – see Table 12(a).

**Table 12(b) – WELL RELATED DANGEROUS OCCURRENCES 2011/12
RECORDED UNDER OTHER TYPE.**

TYPE	DESCRIPTION	NUMBER
73	Release of Hydrocarbon	8
	Total	8

Well related DOs recorded under other type relate to incidents that were reported under a different RIDDOR dangerous occurrence code but which also relate to well activity. These events are included under the count for the relevant other DO type in Table 12.

**Table 12(c) – PIPELINE RELATED DANGEROUS OCCURRENCES
2011/12**

TYPE	DESCRIPTION	NUMBER
14(a)	Uncontrolled/accidental release from a pipeline	7
14(b)	Unintended ignition of pipeline contents	0
14(c)	Pipeline damage	4
14(d)	Substantial/unintentional change in position of a pipeline	0
14(e)	Unintentional change in subsoil/seabed in the vicinity of a pipeline	0
14(f)	Failure of a pipeline isolation device, equipment or system	21
14(g)	Failure of equipment involved with pipeline works	0
	Total	32

Pipeline incidents are those reported as Dangerous Occurrence Type 14 in RIDDOR Sch 2 which have the potential to cause death, major injury or damage to health and can include releases (unignited or ignited), major damage, significant change in position and failure of pipeline isolation devices. A significant number of reports during this period have resulted from failures of riser emergency shut down valves to operate on demand (mainly during testing – see note below). The vast majority of incidents (>80%) reported in this period either occurred on or within 500m of an offshore installation but there was one significant release from a subsea pipeline which also represented a potential pollution threat.

Note: * Significant increase in reporting noted following major HSE intervention on Riser Emergency Shut Down Valve (RESDV) testing practice.

Figure 1

**INJURIES BY SEVERITY
APRIL 1995 – MARCH 2012**

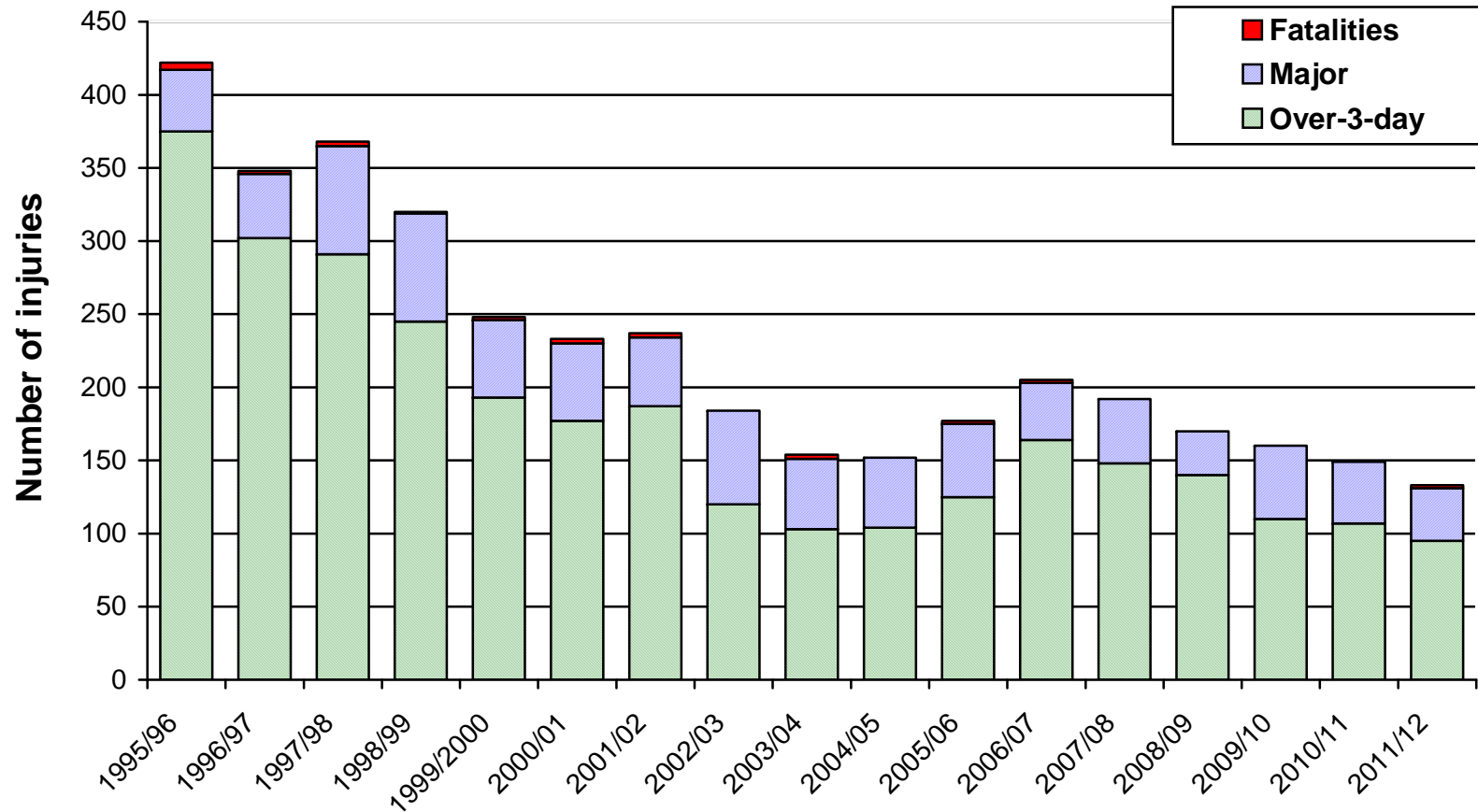


Figure 2

**COMBINED FATAL AND MAJOR INJURY RATE
APRIL 1995 – MARCH 2012**

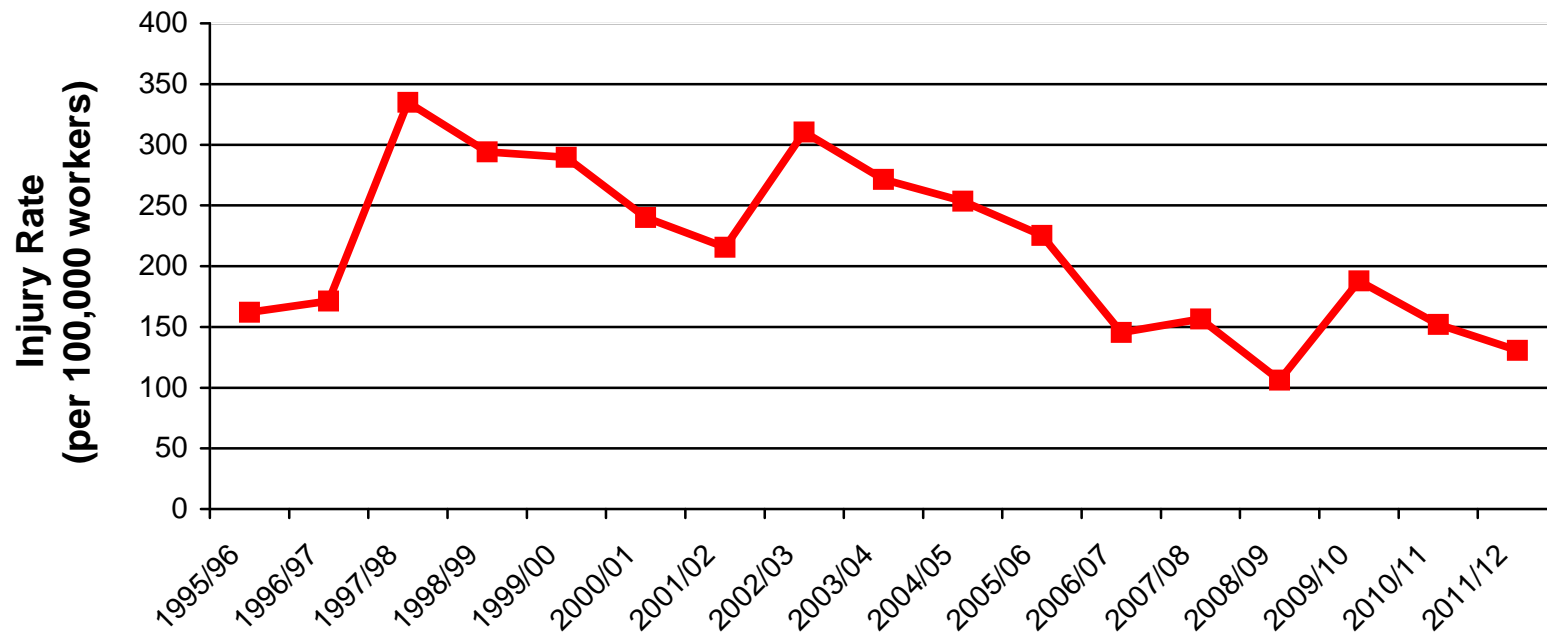


Figure 3

**OVER-3-DAY INJURY RATE
APRIL 1995 – MARCH 2012**

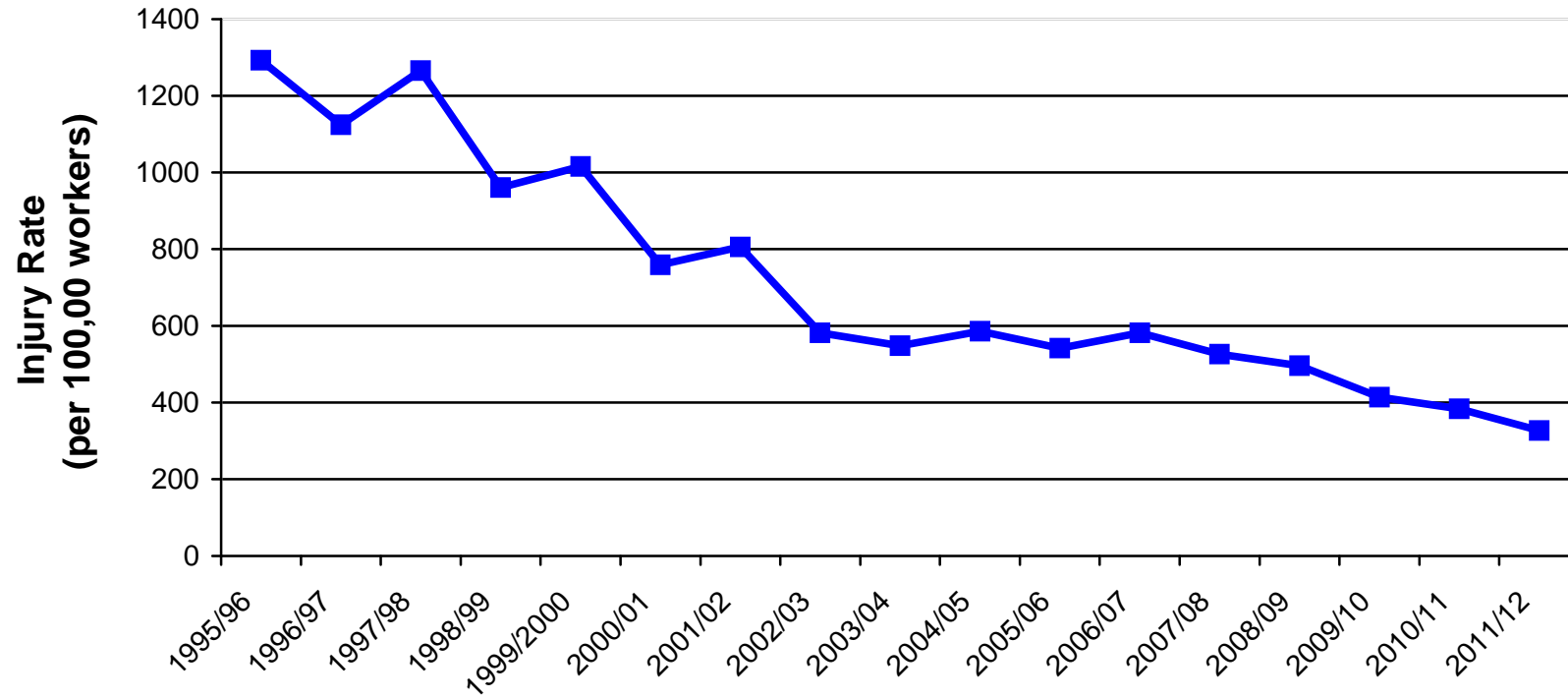


Figure 4

3-YEAR ROLLING AVERAGE OF NUMBER OF INJURIES
APRIL 1995 – MARCH 2012

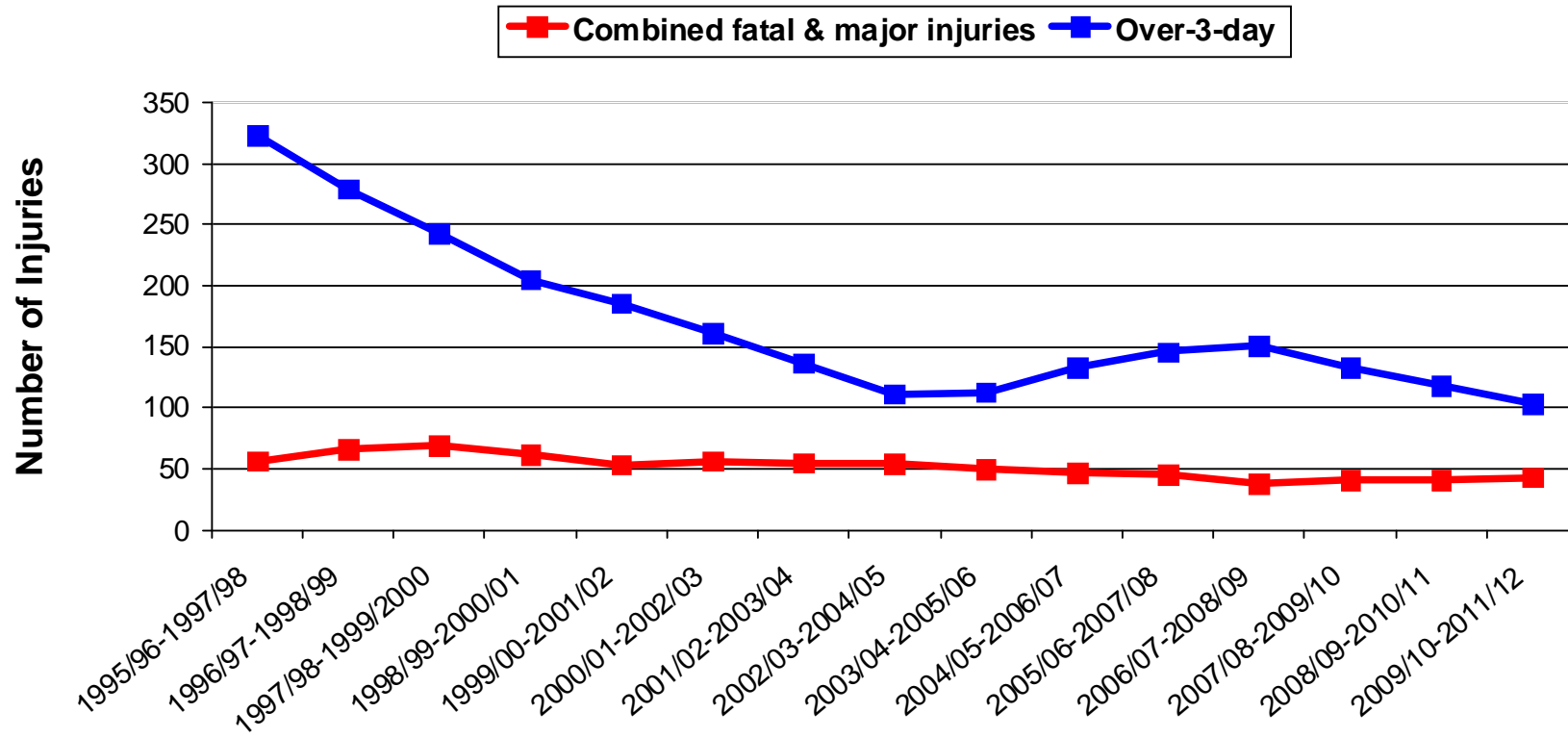


Figure 4a

3-YEAR ROLLING AVERAGE OF INJURY RATES
APRIL 1995 – MARCH 2012

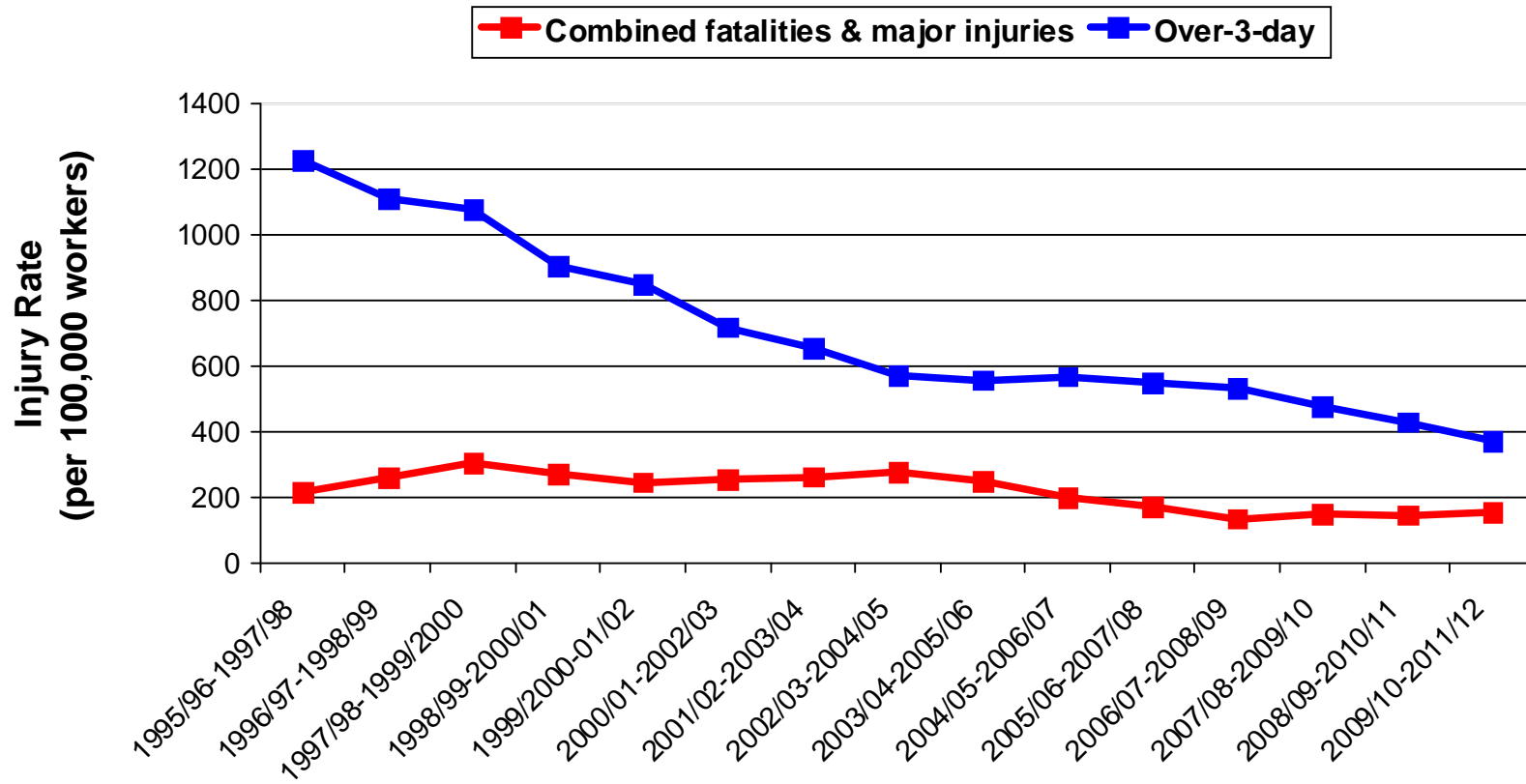


Figure 5

**RATIO OF OVER-3-DAY TO MAJOR INJURIES
APRIL 1995 – MARCH 2012**

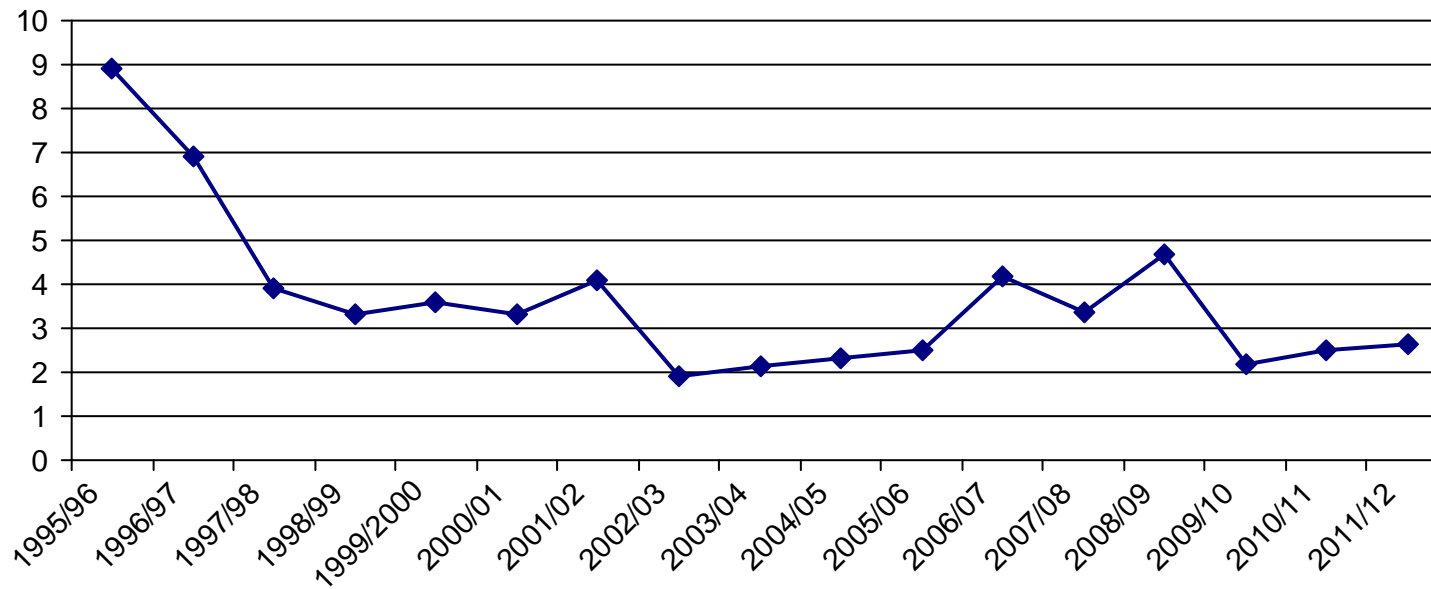


Figure 6 and 6a

SEVERITY OF INJURY AND NATURE OF INJURY
2011/12

Fig 6
BY SEVERITY OF INJURY

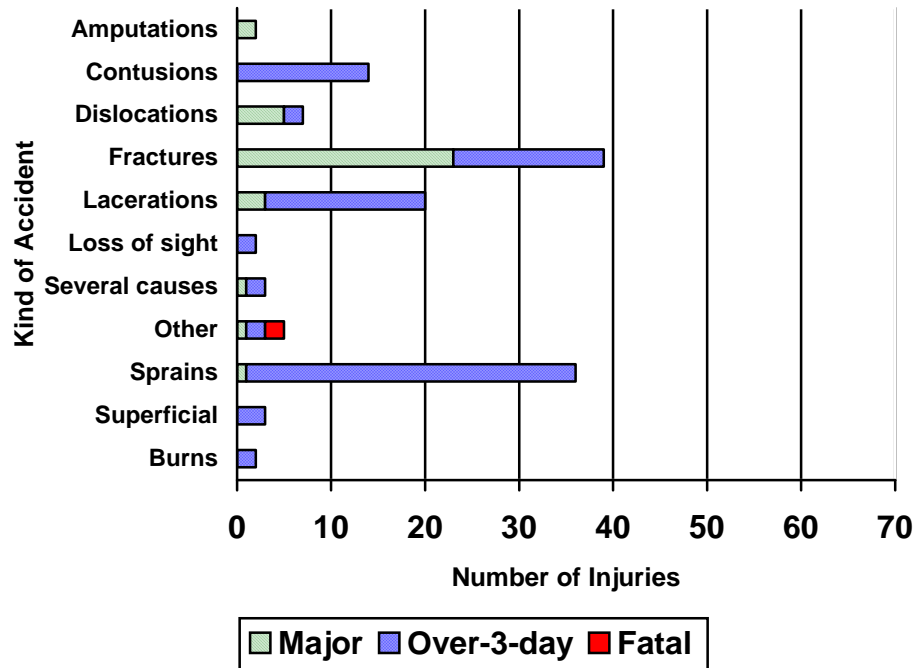
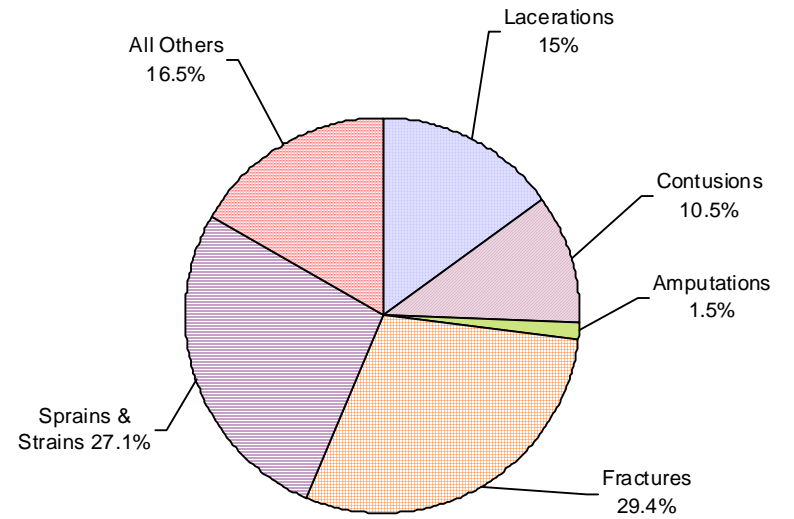


Fig 6a
ALL SEVERITIES OF INJURY



Figures 7 and 7a

SEVERITY OF INJURY AND PART OF BODY
2011/12

Fig 7 BY SEVERITY OF INJURY

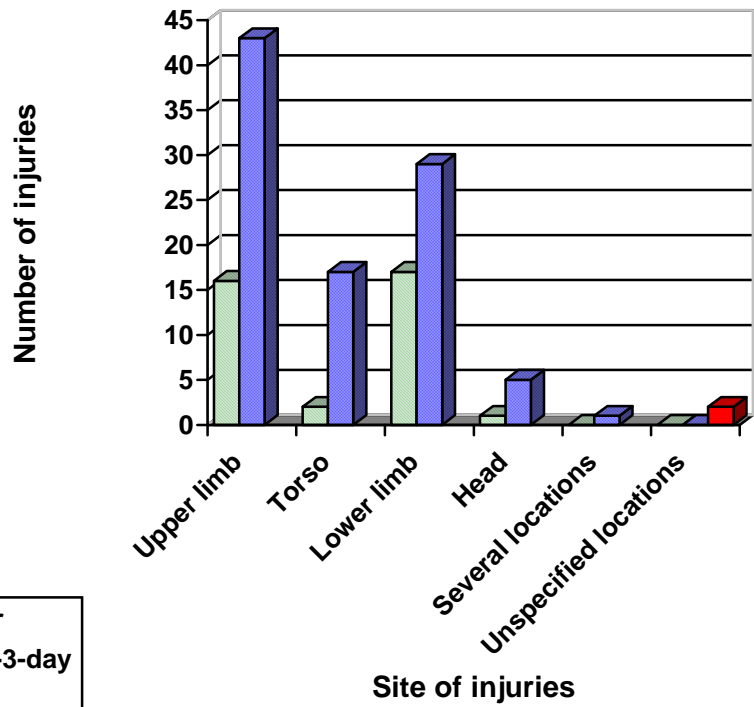
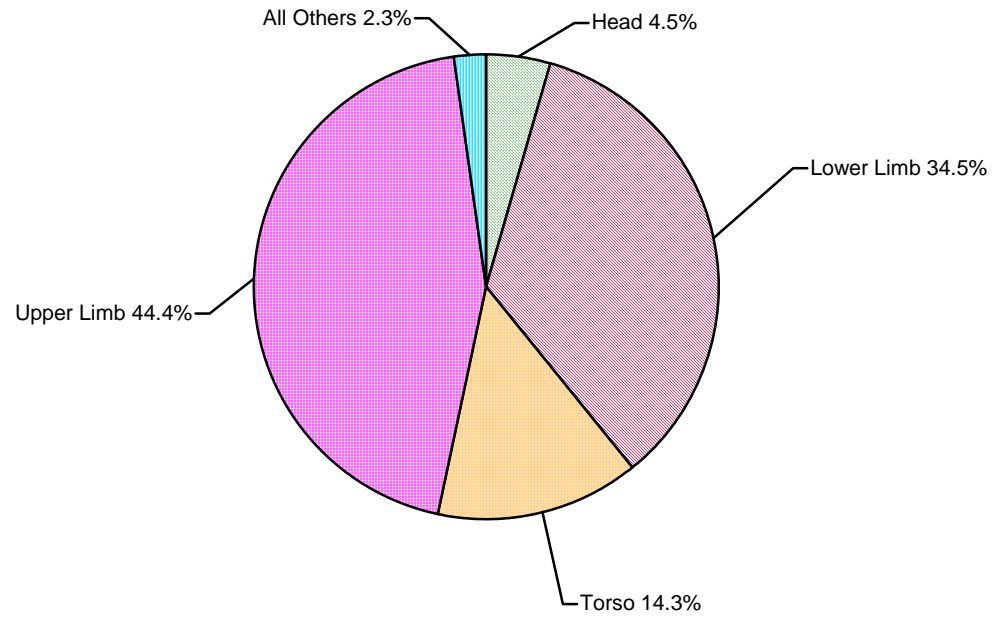


Fig 7a ALL SEVERITIES OF INJURY



Figures 8 and 8a

SEVERITY OF INJURY AND KIND OF ACCIDENT 2011/12

Fig 8
BY SEVERITY OF INJURY

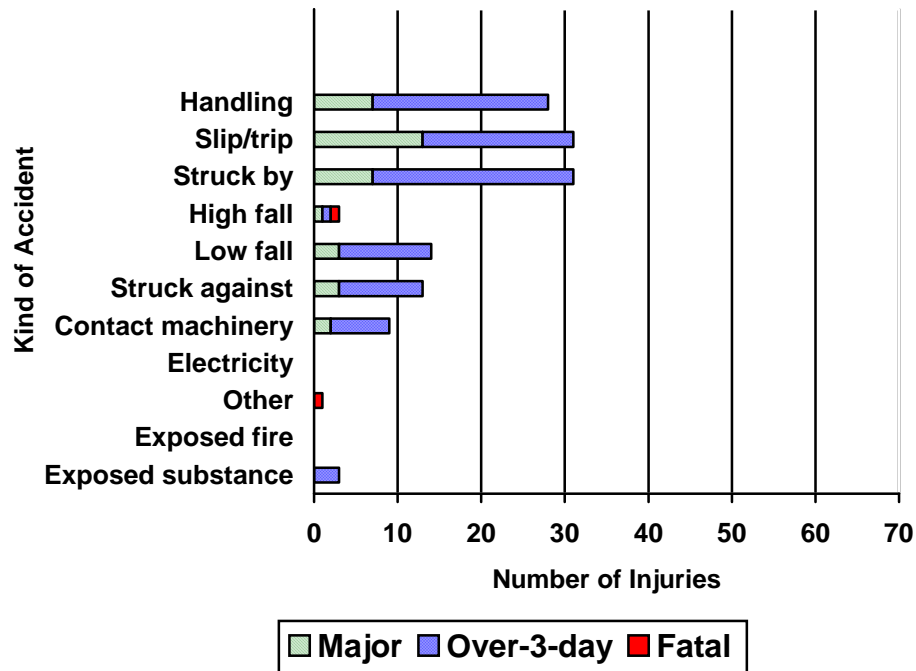
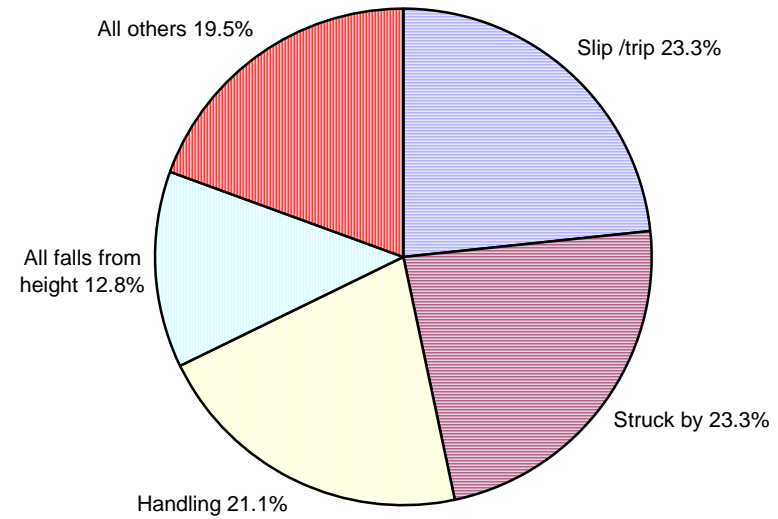


Fig 8a ALL SEVERITIES OF INJURY



Figures 9 and 9a

SEVERITY OF INJURY AND AGE OF INJURED PERSON 2011/12

Fig 9 BY SEVERITY OF INJURY

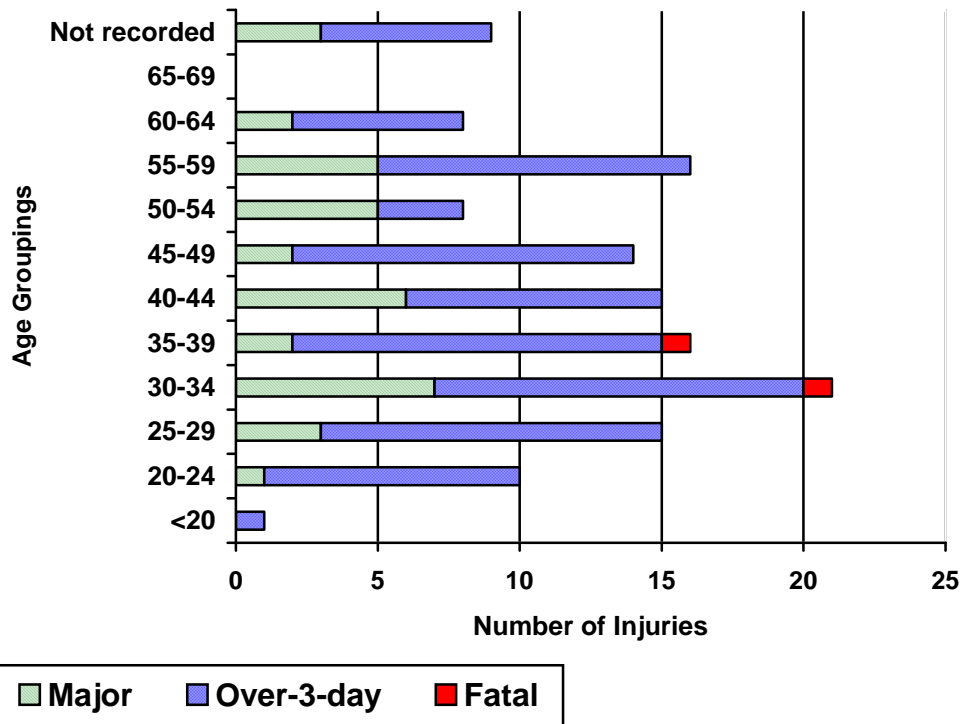
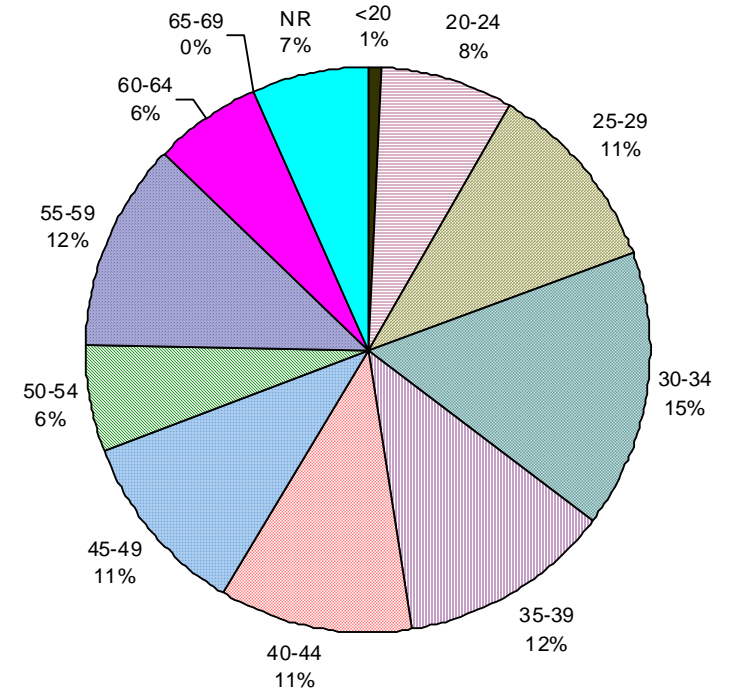


Fig 9A - ALL SEVERITIES



Figures 10 and 10a

SEVERITY OF INJURY AND WORK PROCESS ENVIRONMENT
2011/12

Fig 10
SEVERITY OF INJURY

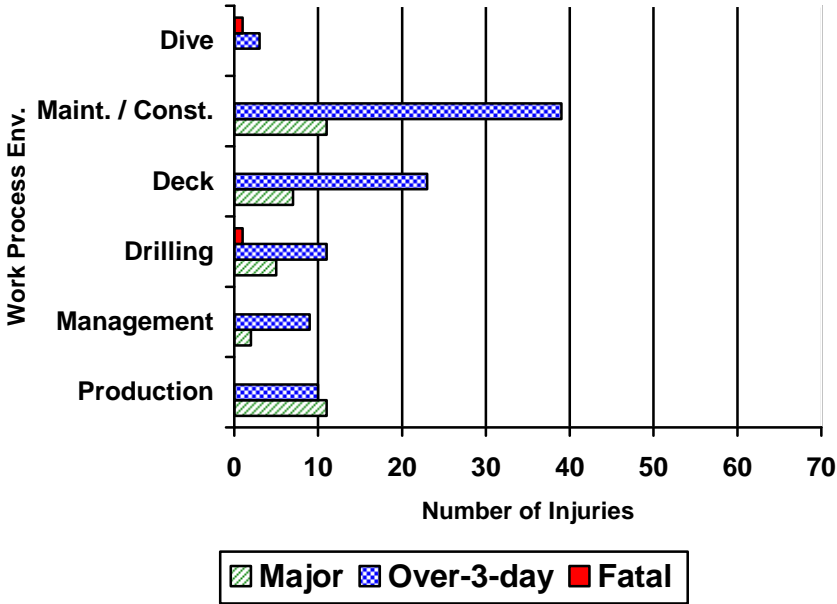
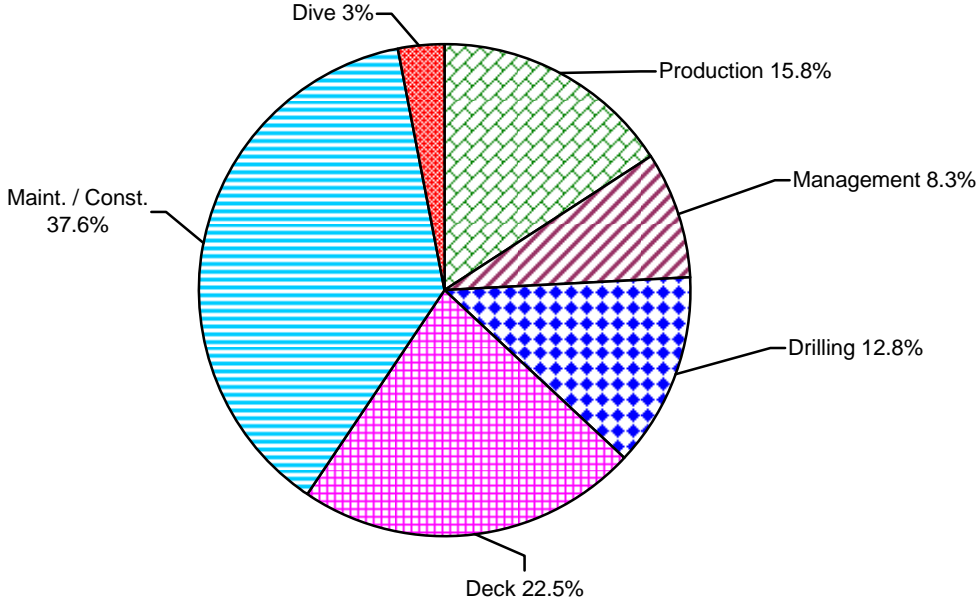


Fig 8a ALL SEVERITIES OF INJURY



Figures 11 and 11a SEVERITY OF INJURY AND AGENT OF ACCIDENT 2011/12

**Fig 11
BY SEVERITY OF INJURY**

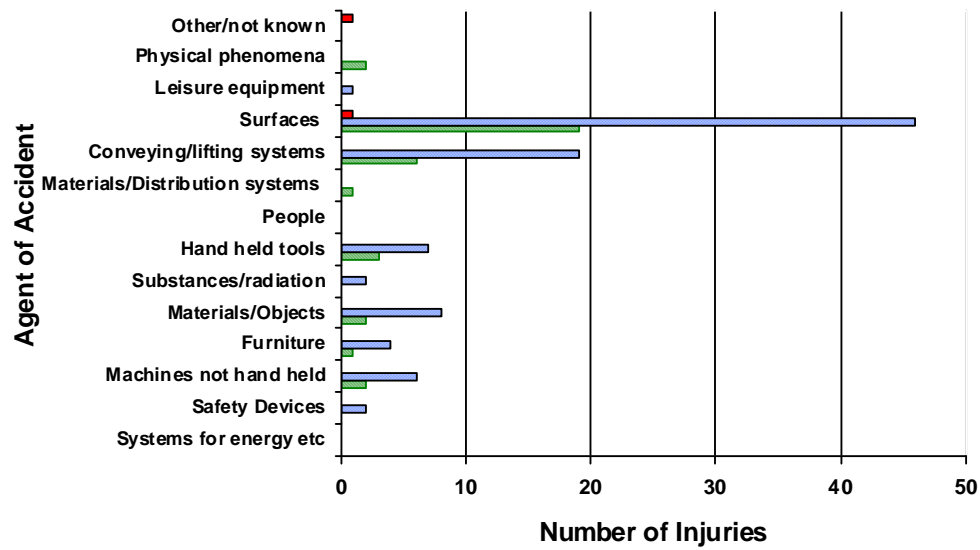


Fig 11a ALL SEVERITIES OF INJURY

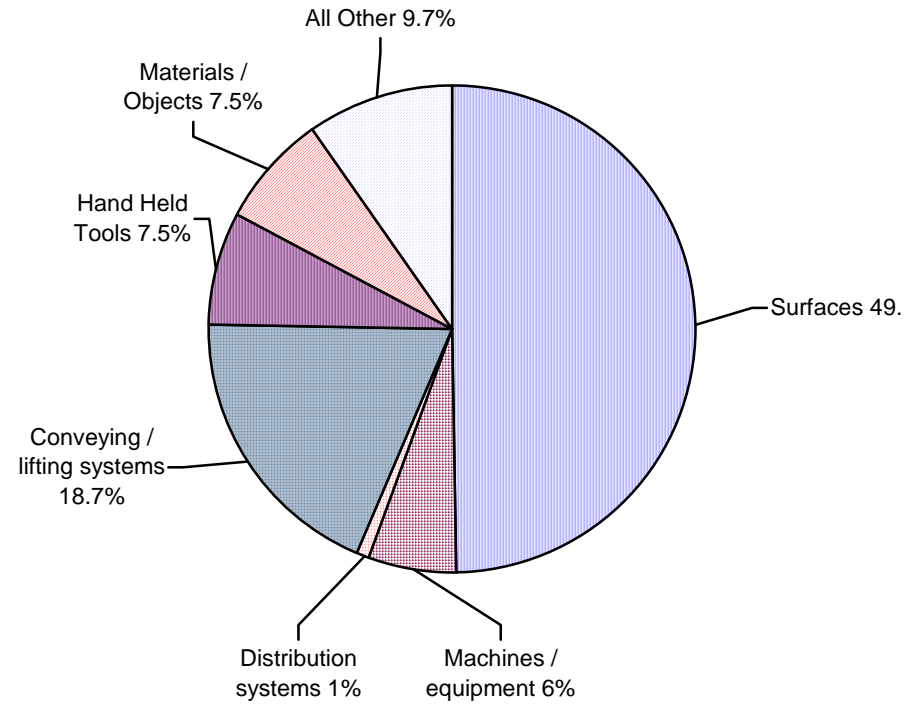
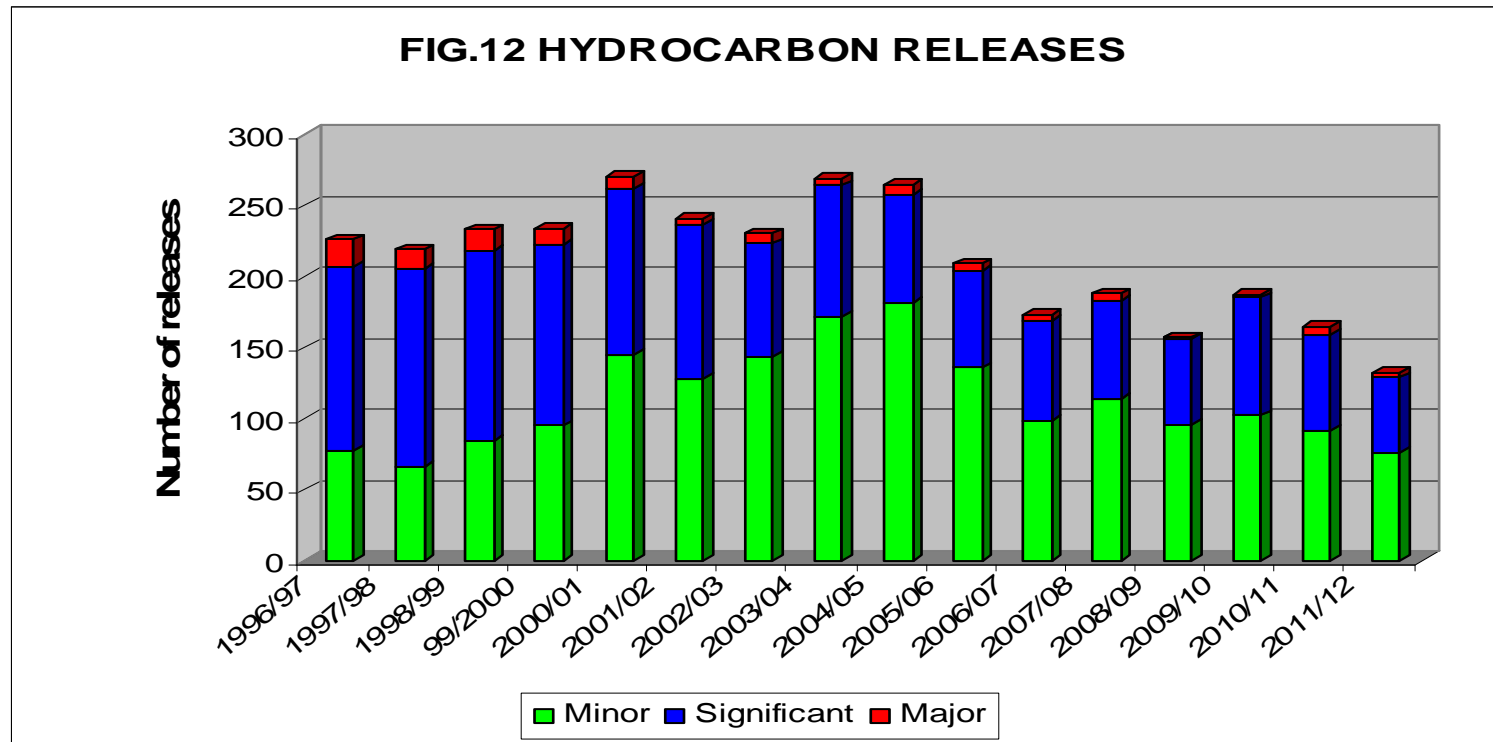


Figure 12

**OFFSHORE HYDROCARBON RELEASE DANGEROUS OCCURRENCES (DO73)
1996/97 TO 2011/12**



- Fig 12 based on hydrocarbon releases (HCRs) reported on Form OIR/12. Form OIR/12 is a voluntary offshore industry system of data reporting for HCRs.
- Non-attributable data from Form OIR/12 is available to authorised users on the Hydrocarbon Releases System on the Offshore Oil & Gas pages on the HSE website.
- 'Severity Classification' guidance for Major, Significant and Minor HCRs can be found on the HSE website at https://www.hse.gov.uk/hcr3/help/help_public.asp

**Figure 12(a)
WELL RELATED DANGEROUS OCCURRENCES (DO 13)
2003/04 TO 2011/12**

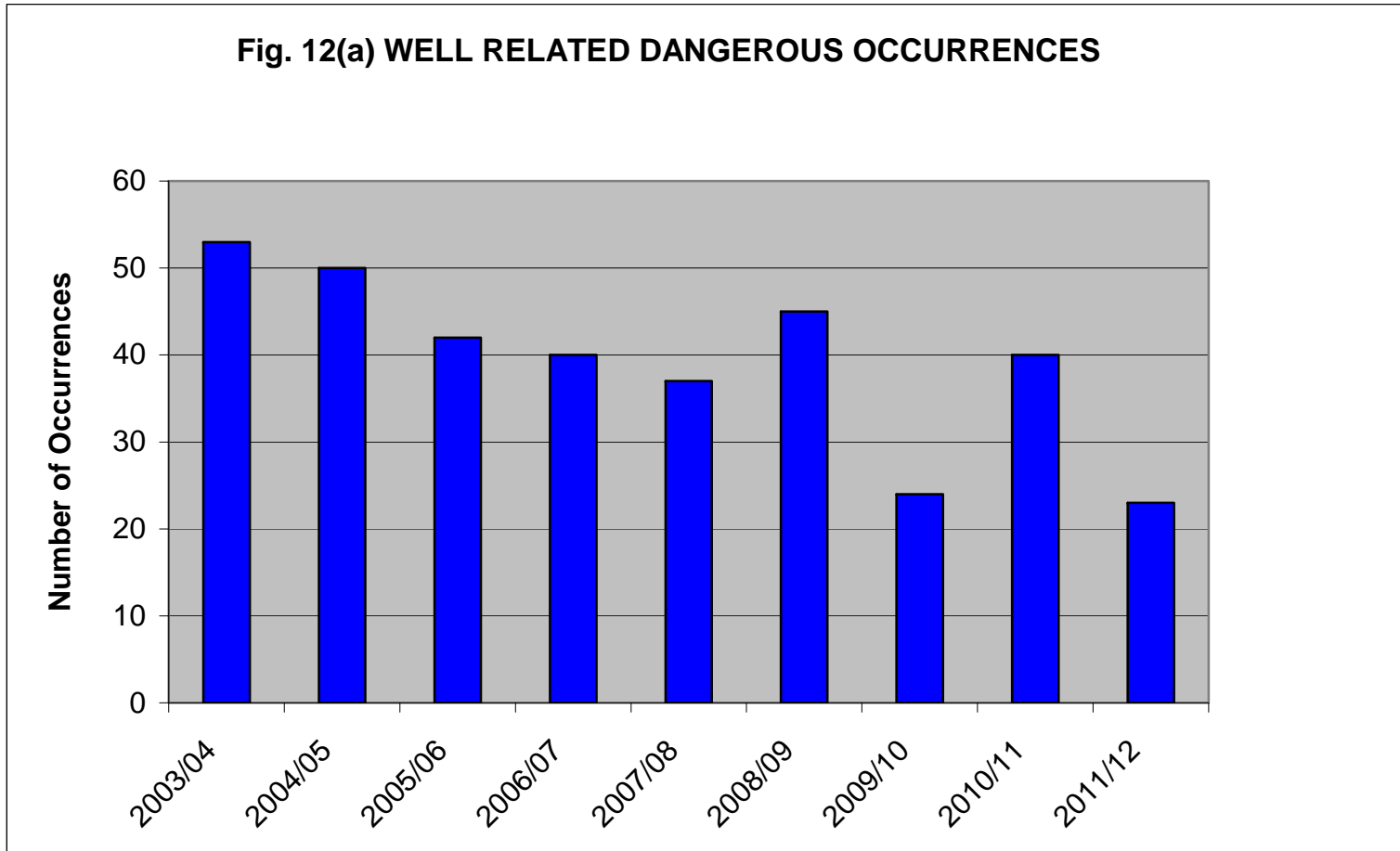


Figure 12(a) Well Related Incidents includes those incidents reported under RIDDOR Schedule 2 - DO13.

Figure 12(b)
PIPELINE RELATED DANGEROUS OCCURRENCES (DO 14)
2010/11 TO 2011/12

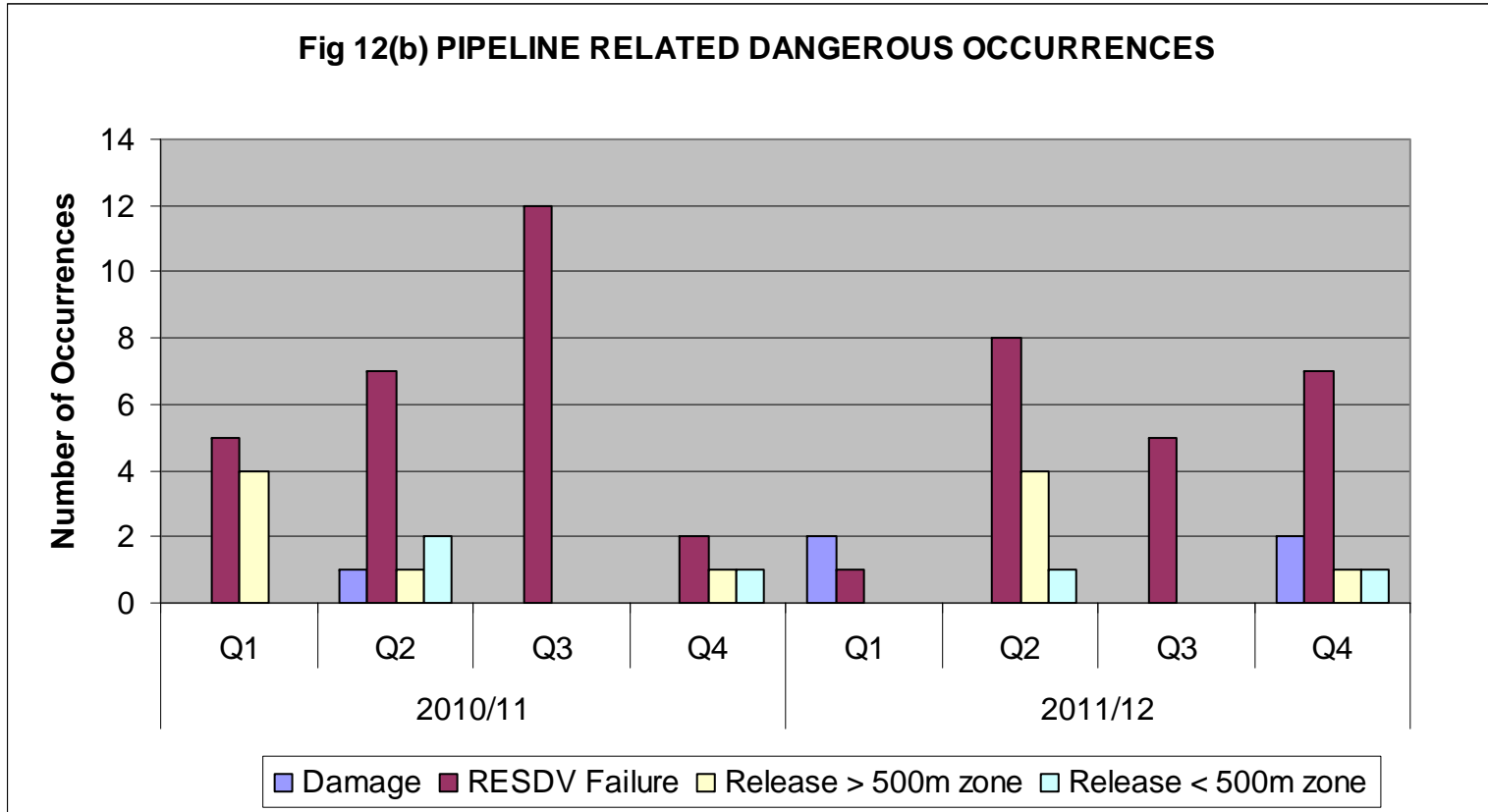


Figure 13

FAILURE OF LIFTING MACHINERY (DO1) 2001/02 - 2011/12.

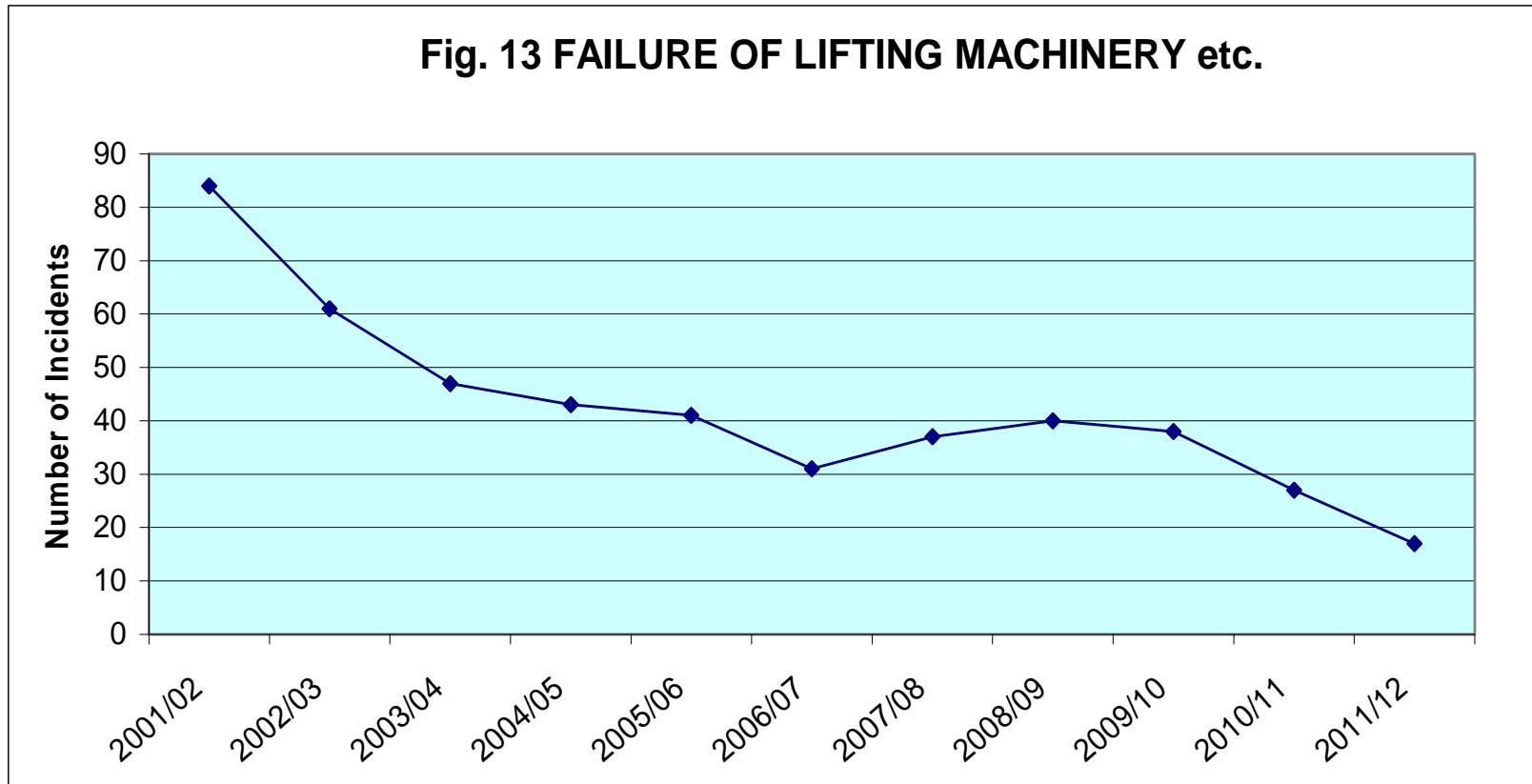


Figure 14

**COLLISION/POSSIBLE COLLISION OFFSHORE (DO78/79)
2001/02 - 2011/12.**

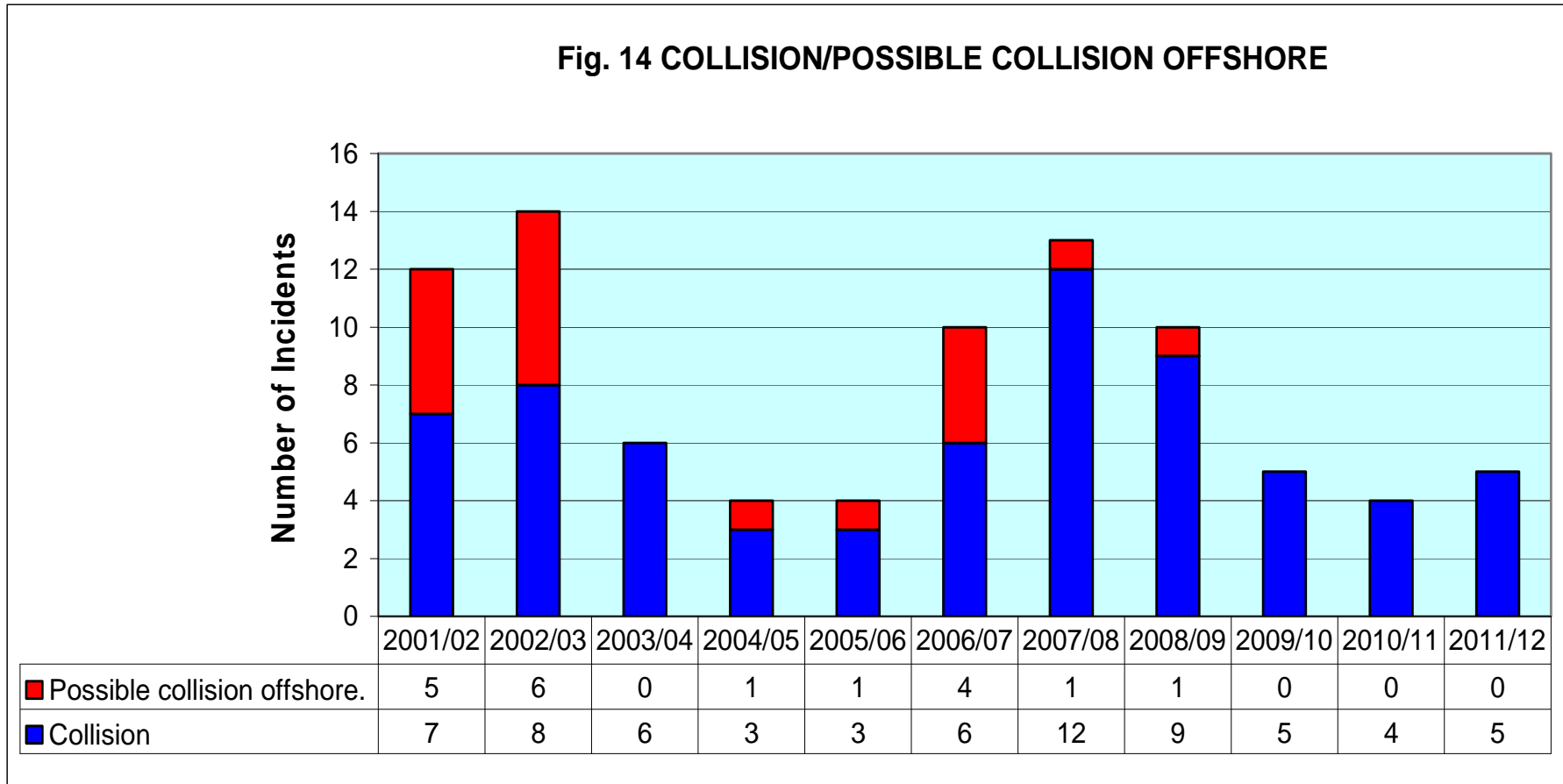


Figure 15

INSTALLATION STABILITY (DO 80/81) 2001/02 - 2011/12.

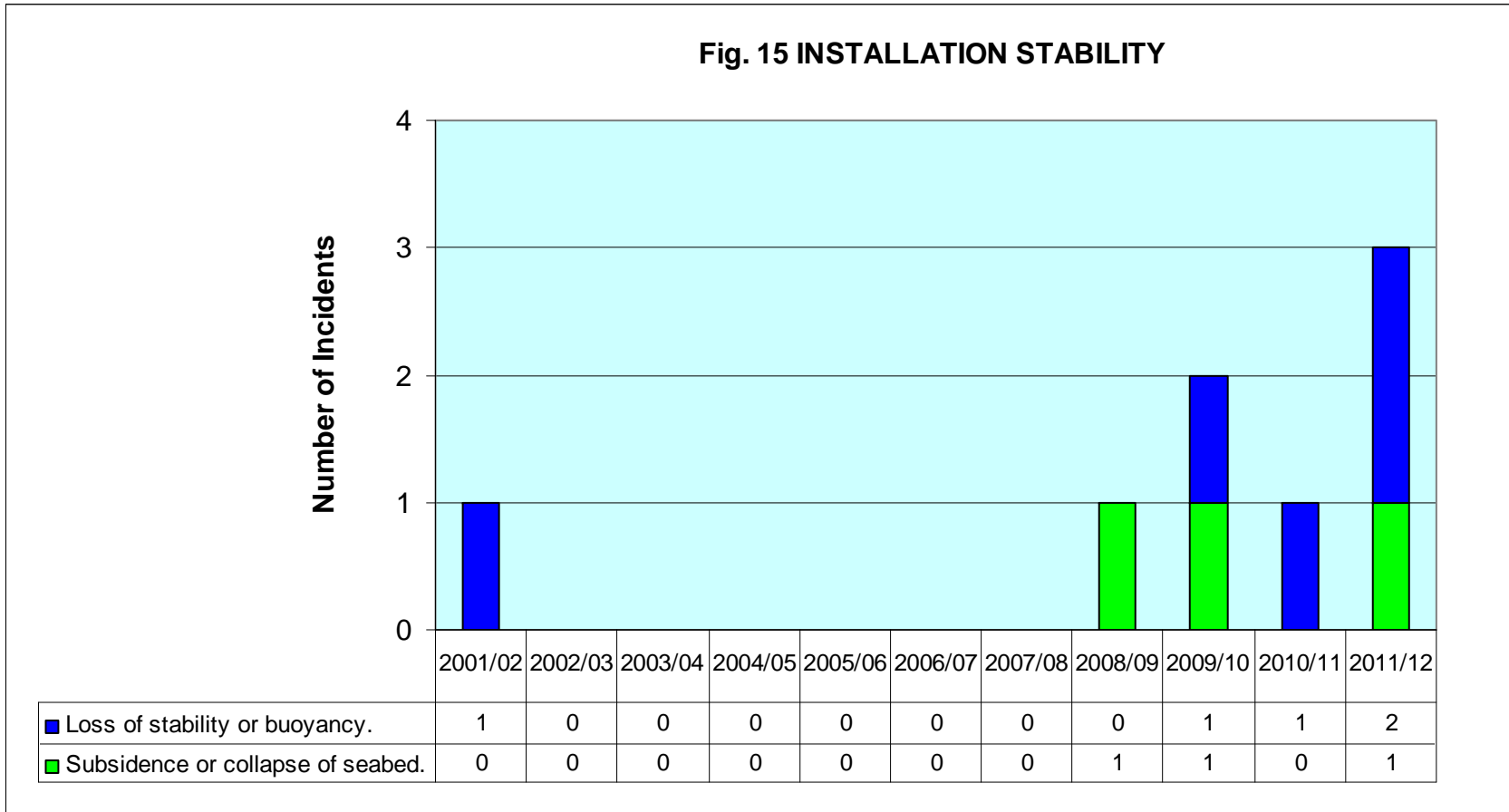
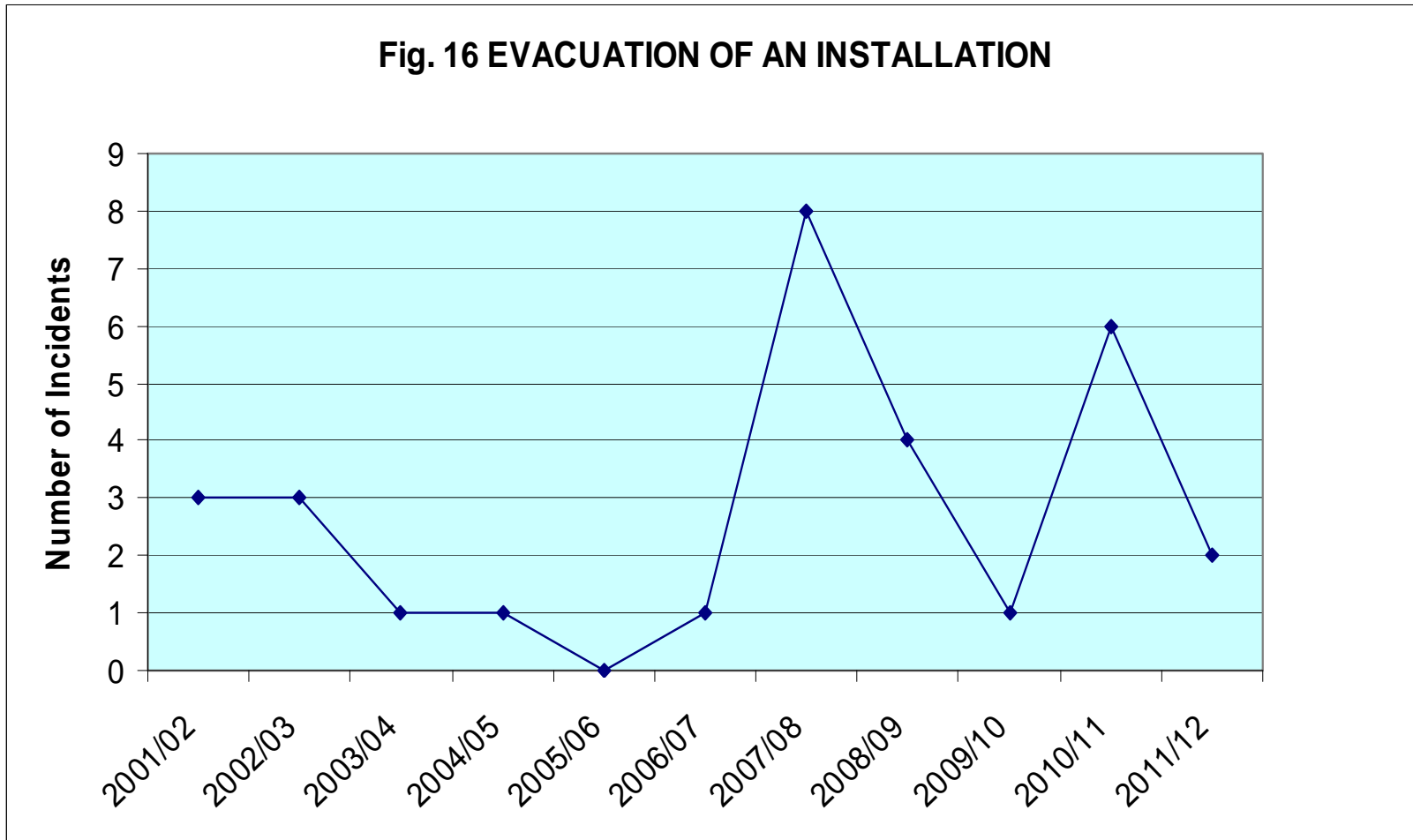


Figure 16

EVACUATION OF AN INSTALLATION (DO82) 2001/02 - 2011/12.



Annex 2

OIL AND GAS UK (OGUK) - KEY INDUSTRY PERFORMANCE INDICATORS

The following information has been produced by OGUK for inclusion in this annual statistics report. Queries relating to the information contained below should be directed to OGUK.

The UK offshore oil and gas industry has a voluntary asset integrity KPI scheme in place and data have been collected since 2008. The scheme is administered by Oil & Gas UK and collates data from 21 duty holders covering over 200 installations. Forums to discuss the KPI trends and to promote the development of KPIs are also conducted on a quarterly basis. The three current cross industry asset integrity related KPIs are:

- KPI-1: Hydrocarbon Releases;
- KPI-2: Verification Non-Compliance;
- KPI-3: Safety-Critical Maintenance Backlog.

KPI-1 is clearly a lagging indicator and is also monitored by HSE through RIDDOR incident reporting mechanisms. KPI-2 and KPI-3 serve as leading indicators looking at performance relating to safety-critical elements. They enable the industry to monitor and measure a key aspect of its overall effort and performance in relation to asset integrity management.

1. KPI-2 Verification Non-Compliance

For production installations the verification process is performed by Independent Verification Bodies such as Bureau Veritas, Lloyd's Register or DNV. Their verification findings are ranked as levels 1, 2 and 3 with broad consistency in those classifications. KPI-2 monitors and measures levels 2 and 3 non-compliances; those being the more significant findings. The graph below shows the level 2 findings per installation.

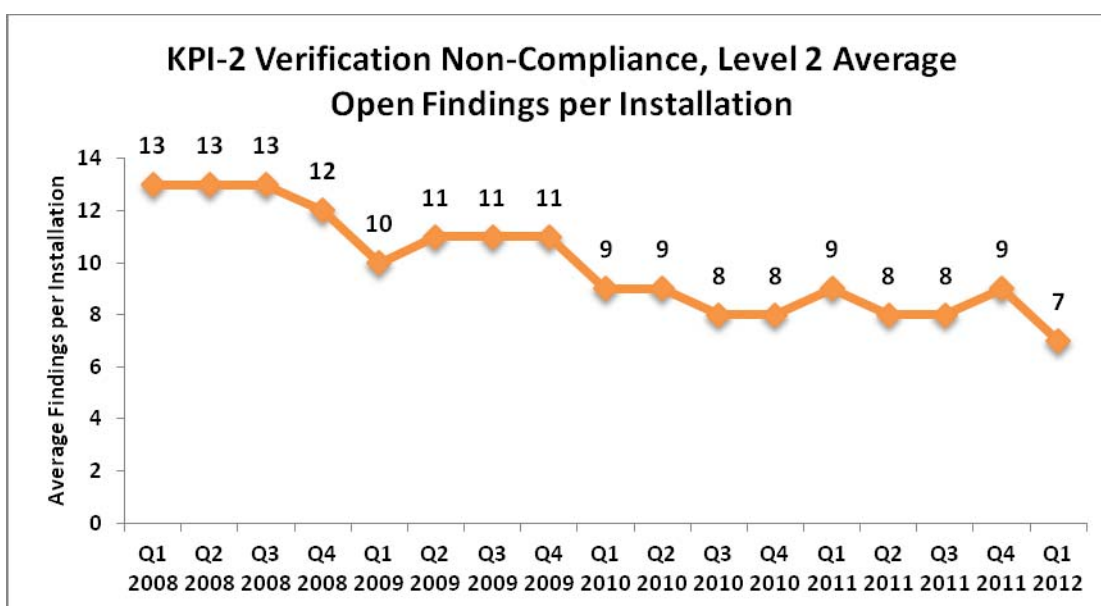


Figure 1. KPI-2: Average level 2 findings per installation (2008 – Q1 2012)
 Average Level 2 findings have decreased by 46% in the period, improving from 13 to 7 open findings per installation. Sustained effort is applied to further improve this performance and to progress from the evident plateau shown in the graph.

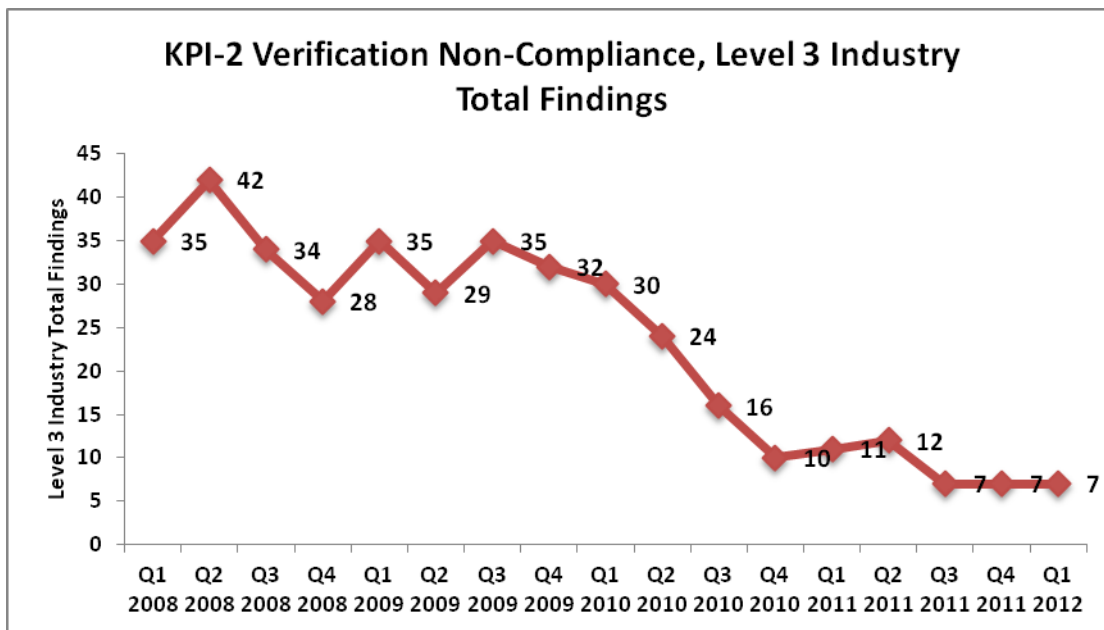


Figure 2. KPI-2: Verification Non-Compliance: level 3 industry total findings (2008 – Q1 2012).

The level 3 findings represent relatively more serious matters of concern identified by the Independent Competent Person. As might be expected, the average level 3 findings per installation are very small so the total number of level 3 across all contributing installations is monitored. Over the period, the industry has consistently reduced the number of level 3 findings from 35 to 7 (80% improvement). As is the case for level 2 non-compliances, the industry continues to focus effort and attention on this critical area of performance and strives to further drive down the number of level 3 non-compliances.

2. KPI-3 Safety Critical Maintenance Backlog

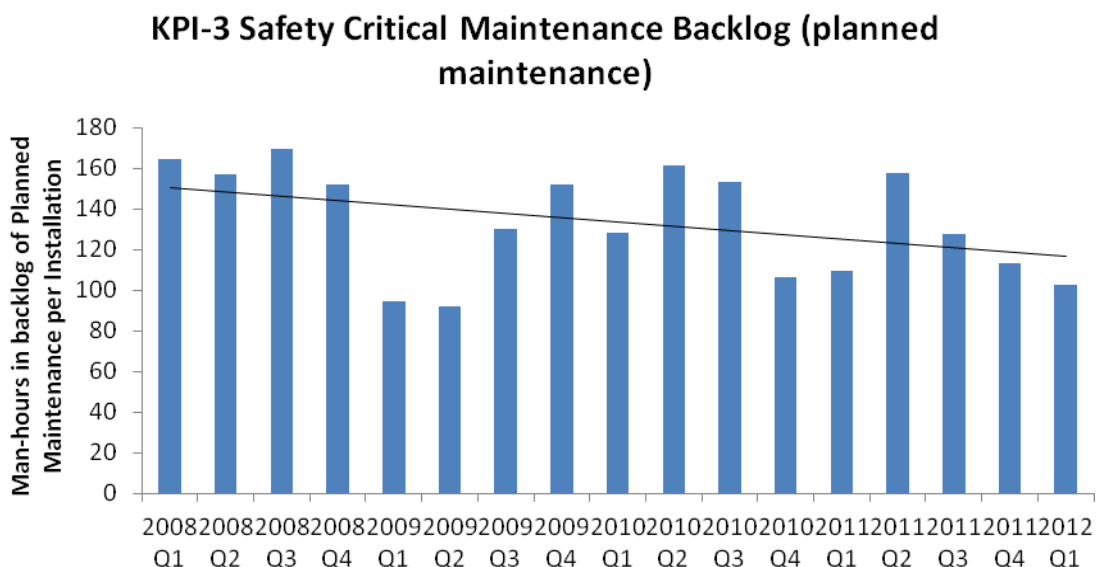


Figure 3. KPI-3: Safety Critical Maintenance Backlog (2008 – Q1 2012).

KPI-3 produces a report of the total number of backlog man-hours per installation of planned safety-critical maintenance that is beyond its completion date. This excludes backlog maintenance that has been subject to a formal and robust deferral process involving relevant technical or engineering authorities. This data collection also covers 21 duty holders and over 200 installations. As can be seen in Figure 3, the data shows a seasonal (cyclic) nature probably reflecting campaign maintenance patterns (e.g. planned major maintenance shutdowns). Nonetheless the data set shows a slight overall improvement over the past three years.