



# **OFFSHORE TECHNOLOGY REPORT - OTO 2000 111**

## **Offshore Injury, Ill health and Incident Statistics Report 1999/2000**

**(Provisional Data)**

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**Health and Safety Executive**

**OFFSHORE INJURY AND INCIDENT  
STATISTICS REPORT 1999/2000  
(PROVISIONAL DATA)**

**Health & Safety Executive  
Hazardous Installations Directorate  
Offshore Division**

Preface

This is the eighth report in a series covering offshore injury and incident statistics and is the fourth under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR 95). The report presents data on injuries, diseases and incidents reported for the period 1 April 1999 to 31 March 2000.

Copies of this report can be obtained from Health and Safety Executive, Hazardous Installations Directorate, Offshore Division, Data Management Section, OSD 1.6, Room 201, Merton House, Stanley Road, Bootle L20 3DL Tel : 0151 951 3099 Fax : 0151 951 3098.

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## **SECTION 1 INTRODUCTION**

- 1.1 This report covers the 12 month period from 1 April 1999 to 31 March 2000. It is based on details of incidents reported under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995<sup>1</sup> (RIDDOR 95).

### **Format of Report**

- 1.2 In line with HSE policies on openness and quality, and because of the change in format for the report for 1998/99, a customer satisfaction survey form was included. In response to receipt of completed forms and other suggestions, the format of this report has changed slightly, and now includes the detail on the confirmed figures for the previous year (Annex 2). A similar customer satisfaction survey form is included in this latest report. Offshore Division will be happy to receive completed forms as part of their continuous drive for improvement.
- 1.3 Commentary on the latest statistics is in Section 2 and "Other Issues" are in Section 3. Details of the injuries for 1999/2000 appear in Annexe 1 of the report, which includes tables and figures.

### **Offshore Safety Statistics Bulletin**

- 1.4 For the first time, Offshore Division has produced an Offshore Safety Statistics Bulletin which was released on the Health and Safety Executive (HSE) web site<sup>2</sup> in September 2000. The issue of this bulletin prior to this OTO report has enabled Industry and others to have early sight of the figures.

### **Comparison With Previous Statistics**

- 1.5 Previously, figures prior to 1996/97 were not directly comparable with later figures caused by the changes to definitions introduced by RIDDOR 95, particularly that of major injuries. However, this is no longer an issue since OSD commissioned a review of the pre-1996/97 data to reclassify injuries from that period in line with the RIDDOR 95 requirements. Consequently, all figures contained in this report conform to the RIDDOR 95 classification, and can be compared.

### **Offshore Activity**

- 1.6 There is no definitive measure of activity offshore but information with regard to safety cases and field development and production can be used as activity indicators, and these are described below.

### **Safety Case Work**

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<sup>1</sup>Further information on these regulations and the injury categories defined therein can be found in the HSE publication "A Guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995", ISBN 0-7176-2431-5

<sup>2</sup> The HSE web site can be found at [www.hse.gov.uk/hsehome](http://www.hse.gov.uk/hsehome)

1.7 The table below summarises the safety cases handled by OSD during 1999/2000 (figures in brackets relate to 1998/99) under the Offshore Installations (Safety Case) Regulations 1992 (SCR).

Case Type	Received Since 1 April 1999	Accepted Since 1 April 1999	Assessments In Progress at 31 March 2000
<b>Operational</b>	9 (9)	9 (15)	5 (5)
<b>Combined Ops.</b>	46 (47)	42 (52)	7 (7)
<b>Reg 9(2) &amp; (3) Rev.'s</b>	34 (17)	26 (18)	10 (6)
<b>Reg 9(4) Rev.'s</b>	48 (86)	41 (101)	19 (12)
<b>Abandonments</b>	2 (1)	1 (0)	1 (1)
<b>Design (5)</b>	5 (6)	2 (N/A)	3 (0)
<b>TOTAL</b>	144 (166)	121 (186)	45 (31)

### Field Development and Production <sup>3</sup>

1.8 Details of field development and production in 1999 are contained in the bullet points below (figures in brackets relate to 1998):

- ◆ Oil production offshore during 1999 was from a total of 133 (109) oil fields.
- ◆ Offshore development plans authorised totalled 18 (32), of which 12 (19) were oil, 1 (2) was condensate and 5 (11) were gas.
- ◆ Oil production increased to 124 million tonnes (just over 119).
- ◆ Gas production increased to 104.7 billion cubic metres (95.2).
- ◆ Production commenced from 9 (12) oil/condensate fields and 9 (6) gas fields.
- ◆ 36 (80) exploration and appraisal wells and 225 (281) development wells were drilled.

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<sup>3</sup> Information extracted from the "Development of UK Oil and Gas Resources 2000" by the Department of Trade and Industry (known as the Brown Book)

## **Drilling Activity<sup>3</sup>**

1.9 The number of development drilling wells was below the rate for the previous year (figures in brackets relate to 1998):

- ♦ 36 (80) exploration and appraisal wells and 225 (281) development wells were drilled.
- ♦ The number of exploration wells drilled, 16 for 1999, is the lowest since 1965 and the number of appraisal wells at 20 is the lowest since 1971.



## **SECTION 2 - COMMENTARY ON STATISTICS**

- 2.1 Provisional figures for the year 1999/2000 may be found in Annex 1 and confirmed figures for 1998/99 can be found at Annex 2.

### **Population**

- 2.2 Where injury rates are used, they have been calculated using data from the annual offshore population surveys conducted by the Inland Revenue (IR). Although IR have increased the frequency of these surveys, OSD have continued to use the figures from the survey conducted around August/September for consistency. Their base survey figure is multiplied by an employment factor of 1.9 to take account of those employees who were not offshore at the time of the survey.
- 2.3 For the 1999/2000 period, the population data comes from the IR survey conducted on 31 August 1999, when the estimated population of those working offshore was 10,002. Factoring up this base figure gives a population of just over 19,000, a 25% decrease on last year's population figure of 25,500.
- 2.4 The offshore population has generally decreased over the years from over 30,000 in the early 1990s (see Table 2).

### **Fatal Injuries**

- 2.5 Two fatal injuries were reported during 1999/2000, one more than last year. This gives rise to a fatal injury rate of 10.5 per 100,000 workers.
- 2.6 One fatality happened during August 1999, when an explosion occurred whilst a diver was using subsea burning equipment to remove redundant pipework. The second fatality happened in January 2000 when casing fell from a sling striking the deceased person.
- 2.7 Table 1 and Figure 1 summarise the number of fatal injuries. Injury rates from 1992/93 to 1999/2000 are shown in Table 2. Figure 2 shows the combined fatal and major injury rate as a line graph.

### **Major Injuries**

- 2.8 Provisional data for the period show 52 major injuries reported. This is lower than the confirmed figure of 74 for 1998/99 and represents a 30% decrease.
- 2.9 The major injury rate fell, from 290.2 in 1998/99 to 273.7 per 100,000 workers in 1999/2000 (see Table 2), a decrease of 6%.
- 2.10 The combined fatal and major injury rate also fell. A rate of 284.2 per 100,000 workers is recorded for 1999/2000 against a rate of 294.1 for the previous year (see Figure 2), representing a 3% decrease.

## **Over-3-day Injuries**

- 2.11 The decrease for this category of injury referred to in last year's report continues to be demonstrated this year. A provisional total of 192 injuries are reported for this year, a fall of 53 incidents on the previous year representing a decrease of just over 20% (Table 1).
- 2.12 However, this year does show an increase in the injury rate for over-3-day incidents, at 1010.5 per 100,000 workers as opposed to 960.8 recorded for last year (Table 2 and Figure 3) which is a 5% increase.

## **Three Year Rolling Averages**

- 2.13 Tables 3a and 3b give details of the three year rolling averages of the number of injuries and injury rates respectively, for April 1991 to March 2000(p). These are further demonstrated by the line graphs in Figures 4a and 4b.
- 2.14 The average for the number of injuries and the injury rate for combined fatal and major injuries both show an increase on previous years. The average number of injuries increased by 5% and the injury rate increased by 17% on the previous 3 year average. Although the indicators do not reach the peaks of the averages seen for 1991-94, they nevertheless show a significant increase.
- 2.15 The over-3-day indicators, however, continue to show a decrease both in the average of the number of injuries and the injury rate. The average number of injuries for the three year period for 1997-2000 shows a 13% decrease on the previous 3 year average. The injury rate shows a 3% fall on the previous period.

## **Dangerous occurrences**

- N.B. Incidence rates for dangerous occurrences are not appropriate for this report. They can be found in specialist reports such as that for hydrocarbon releases<sup>4</sup>.

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<sup>4</sup> Detailed analysis of releases of hydrocarbons can be found in the OTO series of reports. The most recent publication of this report is OTO 1999 079, published in January 2000. However, a further report, OTO 2000 112 is planned for later this year. These reports are/will be available from HSE, RSU, Directorate of Science and Technology, Merton House, Bootle, Merseyside, L20 3DL, telephone 0151-951 4648

2.16 The provisional number of dangerous occurrences for 1999/00 is lower than the confirmed figure for 1998/99. The figures show 60 less incidents, representing a decrease of nearly 9%. Table 1 summarises the number of occurrences and Table 11 gives information on the kind of dangerous occurrence.

## **Breakdown of Injuries and Incidents, 1999/2000**

### **Nature of Injury**

2.17 Table 4 shows a breakdown of the category of injury, that is fatal, major or over-3-day, by the nature of injury. Figures 5a and 5b shows the distribution of nature of injury for major injuries. This data shows the following:

- ♦ Fracture is the most common type of major injury with 37 incidents (71%), compared to 47 incidents (64%) for 1998/99.
- ♦ Sprains and strains are the most common type of over-3-day injury, with 78 incidents (41% of all over-3-day injuries), compared to 89 incidents (36%) for 1998/99.
- ♦ Contusion injuries accounted for 56 incidents (29% of all over-3-day injuries), compared to 39 (16%) for 1998/99.
- ♦ 23 fractures were reported as over-3-day injuries, representing 12% of all injuries in this category, compared to 48 (20%) for 1998/99.

### **Part of Body Injured**

2.18 Table 5 and Figures 6a and 6b provide information on the site of injury. In particular, the following is evident on analysis:

- ♦ The upper limb<sup>5</sup> accounted for 34% (84) of all injuries, compared to 143 incidents (45%) for 1998/99.
- ♦ The lower limb<sup>6</sup> accounted for 30% (74) of all injuries, compared to 87 incidents (27%) for 1998/99.
- ♦ Injuries to the limbs account for 65% of all major injuries compared to 230 (81%) for 1998/99.
  - There were 23 major injuries to the upper limb (44% of all major injuries), compared to 38 incidents (51%) for 1998/99.

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<sup>5</sup> Upper limb includes finger/ thumb(s), hand, wrist, rest of upper limb and several locations of upper limb.

<sup>6</sup> Lower limb includes toe(s), foot, ankle, rest of lower limb and several locations of lower limb.

- There were 11 major injuries to the lower limb (21% of all major injuries), compared to 22 incidents (30%) for 1998/99.
- ◆ 17% (9) of all major injuries were to the upper limb (excluding finger/thumb(s), hand and wrist), compared to 16% (12) for 1998/99.
- ◆ 65% (124) of all over-3-day injuries were to the upper and lower limbs, 32% (61) and 33% (63) respectively, compared to 69% overall for 1998/99, 43% and 27% respectively.
- ◆ 32 injuries to finger/thumb(s) were reported as over-3-days (17% of total), compared to 71 (29%) for 1998/99.
- ◆ Injuries to the torso accounted for 27% of over-3-day incidents, with 52 incidents reported, compared to 65 (27%) for 1998/99.

### Kind of Accident

2.19 Table 6 and Figures 7a and 7b record the breakdown of severity of injury against the kind of accident. Analysis of this data showed:

- ◆ 32% of all injuries were associated with falls from height (17%) or slips or trips on the same level (15%), compared to 27% overall for 1998/99.
  - Over one-third of major injuries were from falls from a height (21%) and slips or trips (15%), compared to 12% and 30% respectively for 1998/99.
  - 31% of all over-3-day injuries were from falls from height (16%) and slips or trips (15%), compared to 22% overall for 1998/99, 6% and 16% respectively.
- ◆ 28% of all injuries occurred whilst handling, lifting or carrying, compared to 20% for 1998/99.
  - One-third of all over-3-day injuries were handling incidents, with 64 reported incidents, compared to 63 for 1998/99.
- ◆ 20% of all injuries were from being struck by moving, flying or falling objects, compared to 22% for 1998/99.
  - 25% of major injuries were from being struck by moving, flying or falling objects, compared to 26% for 1998/99.

## Age of Injured Person

2.20 Table 7 and Figures 8a and 8b look at the ages of the injured person. The following points are significant:

- ◆ 19% of all injuries occurred to people between 30 - 34 years of age, with 47 injuries recorded, compared to 18% (58 injuries) for 1998/99.
  - Of these injuries, just over one quarter resulted in major injuries (13 of 47 injuries), compared to 31% (18 of 58 injuries) for 1998/99.
- ◆ 18% of all injuries occurred to people in the age group 40 - 44, with 25% of those resulting in major injuries, compared to 15% for 1998/99 of which 20% were major injuries.

## Activities Being Carried Out

2.21 Table 8 and Figures 9a and 9b give information on the operations being reported when injuries occurred. Further analysis indicated the following:

- ◆ Maintenance, drilling and deck operations accounted for 67% of all injuries, and 79% of all major injuries, compared with 71% and 65% respectively for 1998/99.
  - 66 injuries occurred during maintenance activities representing 27% of all injuries, compared to 73 injuries (23%) for 1998/99.
  - 53 injuries occurred during drilling operations (22% of all injuries), compared to 98 injuries (31%) for 1998/99.
  - 45 injuries occurred during deck operations, including one fatal deck operations injury (18% of all injuries), compared to 57 injuries (18%) for 1998/99.
- ◆ 65% of all over-3-day injuries occurred during these three operations, (27% maintenance, 21% drilling and 17% deck operations).
  - For 1998/99, 73% of all over-3-day injuries occurred during these three operations, (33% drilling, 20% maintenance and 20% deck operations).

## Broad Incident Type

2.22 With broad incident type, it is not surprising, given the figures in para 2.19 of this report, that slips, trips and falls account for the majority of injuries.

Analysis of Table 9 (and shown in Figures 10a and 10b) revealed the following:

- ♦ 40% of all injuries were recorded as slips, trips and falls, compared to 35% for 1998/99.
  - 80% of the above injuries were reported as over-3-day, compared to 69% for 1998/99.
- ♦ 20% of all injuries were classified as handling, compared to 23% for 1998/99.
  - 92% of the above injuries were reported as over-3-day, the same figure as for 1998/99.

### **Reports of Disease Offshore**

- 2.23 There were 13 cases of diseases reported during 1999/00. These are detailed in Table 10 which also shows the number of incidents from 1996.
- 2.24 As for 1998/99, there were six cases of chickenpox reported. Also, this period has the first case of rubella reported since 1996. Both these conditions are included in the list of additional diseases reportable in respect of offshore workplaces under RIDDOR.
- 2.25 In 1999/2000 there were two less cases of decompression sickness and two less cases of occupational dermatitis compared with the figures for last year.
- 2.26 The true incidence of work related disease and ill health offshore could be higher than Table 10 figures indicate due to under-reporting. As in the previous report, observation of medical logs suggests, for example, that dermatitis is more common than the 13 cases reported since April 1996.

### **Dangerous Occurrences**

- 2.27 A provisional total of 633 incidents reportable but not resulting in injury were received and the breakdown is shown in Table 11. This is 60 incidents less than the confirmed figure for 1998/99, representing a decrease of nearly 9%.
- 2.28 For this current period, the highest number of incidents were reported as releases of petroleum hydrocarbon, type 73, for which there were 207 incidents. This represents 33% of all dangerous occurrences. It is also an increase of 14 on the confirmed figures for the previous year.
- 2.29 The next most frequently reported dangerous occurrence was type 77. There were 163 such incidents, representing 26% of all occurrences. Again this shows a slight increase on the confirmed figure of 157 for 1998/99. Thus, dangerous occurrence types 73 and 77 account for nearly 60% of all occurrences reported for the period.

2.30 Dangerous occurrence type 77 specifically covers incidents concerning:

- failure of equipment required to maintain a floating offshore installation on station;
- dropping of objects on an offshore installation or on an attendant vessel or into the water nearby; or
- damage to or on an offshore installation caused by adverse weather conditions.

2.31 When this type of occurrence is further broken down into the above sub-categories, the dropping of objects is by far the most commonly reported occurrence, accounting for 143 (88%) of the total 163 incidents of type 77. Weather damage accounted for 17 of the remaining incidents.

## **SECTION 3 - RELATED INITIATIVES**

### **Current Initiatives by OSD**

- 3.1 During this current year, 2000/01, OSD has set clear targets for programmes of work on, amongst others, hydrocarbon releases and occupational injuries.
- 3.2 The number of hydrocarbon releases continues to be the major concern in the offshore sector. A specific programme of work commencing April 2000 is aimed at getting a reduction in the number of major hydrocarbon releases, with a target of 50% reduction over a period of three years. OSD will carry out a programme of targeted process integrity inspections and mandatory investigation of reportable releases, in order to identify root causes and to deal with discovered poor performance.
- 3.3 The Offshore Accidents and Statistics report for 1997-1998 shows that approximately 20% (72) of all accidents reported to OSD were for injuries caused by manual handling. OSD has launched a project, as part of a three year campaign, requiring the mandatory investigation of a specified number of back injuries arising from manual handling up to a level which corresponds to 20% of all investigated accidents.
- 3.4 It is widely accepted that slips, trips and falls from a height are amongst the most common types of workplace incidents, often leading to serious injury and time off work. Certain hazards on offshore installations, for example slippery decks, heavy usage of ladders and outside stairways, temporary cables and hoses across decking, etc. present particular risks in terms of these incidents. OSD has launched an initiative to reduce the number of incidents of this type by 15% over three years, commencing with research to develop the best approach towards meeting the target.

### **Update on the work by Liverpool University**

- 3.5 Last year's OTO report described the research undertaken by Liverpool University. The report referred to work on multivariate analysis and research to assess whether case control techniques can be applied for offshore.
- 3.6 The multivariate work is to analyse offshore incidents, both injuries and the release of hydrocarbons, and establish possible factors or interdependencies affecting these incidents. Two separate reports will be published later this year which will describe the findings of this research. OTO 2000 108 <sup>7</sup> will contain commentary on multivariate analysis of injury data and OTO 2000 085 <sup>7</sup> will report on hydrocarbon releases.
- 3.7 A report on the work to assess and, if applicable, develop methods of applying case control techniques to offshore incident data is also due for publication later this year. The reference for this report is OTO 2000 082 <sup>7</sup>.

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<sup>7</sup> These three reports will be available from HSE, RSU, Directorate of Science and Technology, Merton House, Bootle, Merseyside, L20 3DL, telephone 0151-951 4648



Table 1

**SUMMARY OF INJURIES AND DANGEROUS OCCURRENCES  
APRIL 1992 - MARCH 2000(p)**

	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000p
<b>FATALITIES</b>	5	1	1	5	2	3	1	2
<b>MAJOR</b>	111	87	68	67	44	74	74	52
<b>COMBINED FATALITIES AND MAJOR INJURIES</b>	116	88	69	72	46	77	75	54
<b>OVER-3-DAY</b>	480	377	239	348	302	291	245	192
<b>DANGEROUS OCCURRENCES</b>	525	633	594	528	569	649	693	633

Table 2

**SUMMARY OF INJURY RATES (per 100,000 workers)  
APRIL 1992 - MARCH 2000(p)**

	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000p
<b>ESTIMATED WORKFORCE<sup>8</sup></b>	<b>29,500</b>	<b>34,200</b>	<b>27,200</b>	<b>29,003</b>	<b>26,853</b>	<b>23,000</b>	<b>25,500</b>	<b>19,000</b>
<b>FATALITIES</b>	16.9	2.9	3.7	17.2	7.4	13.0	3.9	10.5
<b>MAJOR</b>	376.3	254.4	250.0	231.0	163.9	321.7	290.2	273.7
<b>COMBINED FATALITIES AND MAJOR INJURIES</b>	393.2	257.3	253.7	248.3	171.3	334.8	294.1	284.2
<b>OVER-3-DAY</b>	1627.1	1102.3	878.7	1199.9	1124.6	1265.2	960.8	1010.5

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<sup>8</sup> From Inland Revenue offshore population surveys for the period shown.

Table 3a

**3-YEAR ROLLING AVERAGE OF NUMBER OF INJURIES  
APRIL 1991 - MARCH 2000(p)**

	1991-94	1992-95	1993-96	1994-97	1995-98	1996-99	1997-2000(p)
<b>COMBINED FATALITIES AND MAJOR INJURIES</b>	107	91	76	62	65	66	69
<b>OVER-3-DAY</b>	467	365	321	296	314	279	243

Table 3b

**3-YEAR ROLLING AVERAGE OF INJURY RATES  
APRIL 1991 - MARCH 2000(p)**

	1991-94	1992-95	1993-96	1994-97	1995-98	1996-99	1997-2000(p)
<b>AVERAGE WORKFORCE</b>	32,300	30,300	30,134	27,685	26,285	25,118	22,500
<b>COMBINED FATALITIES AND MAJOR INJURIES</b>	331.3	300.3	252.2	223.9	247.3	262.8	306.7
<b>OVER-3-DAY</b>	1445.8	1204.6	1065.2	1069.2	1194.6	1110.8	1080.0

Table 4

**SEVERITY OF INJURY AND NATURE OF INJURY  
APRIL 1999 - MARCH 2000 (p)**

NATURE OF INJURY	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Amputation		1		1
Poisoning, gassing and asphyxiation			2	2
Burns		2	2	4
Concussion and internal injuries		1	1	2
Contusions		1	56	57
Dislocation		3	2	5
Other injury caused by contact with electricity		1		1
Fracture		37	23	60
Laceration and open wounds		2	16	18
Loss of sight of eye		1		1
Injuries of more than one of the other natures	1			1
Injuries not classified elsewhere	1	2	3	6
Injury not known		1	1	2
Sprains and strains			78	78
Superficial injuries			8	8
<b>Total</b>	<b>2</b>	<b>52</b>	<b>192</b>	<b>246</b>

Table 5

## SEVERITY OF INJURY AND PART OF BODY INJURED APRIL 1999- MARCH 2000(p)

SITE OF INJURY	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Eye		3		3
Ear			1	1
Other parts of face		2	1	3
Head excluding face		2	4	6
Several locations of head				0
<b>TOTAL: HEAD</b>	<b>0</b>	<b>7</b>	<b>6</b>	<b>13</b>
Neck			5	5
Back		2	39	41
Trunk	1	6	8	15
Several locations of torso				0
<b>TOTAL: TORSO</b>	<b>1</b>	<b>8</b>	<b>52</b>	<b>61</b>
One or more finger/ thumb(s)		3	32	35
Hand		5	12	17
Wrist		6	4	10
Rest of upper limb		9	12	21
Several locations of upper limb			1	1
<b>TOTAL: UPPER LIMB</b>	<b>0</b>	<b>23</b>	<b>61</b>	<b>84</b>
One or more toes			8	8
Foot		6	9	15
Ankle		1	16	17
Rest of lower limb		3	30	33
Several locations of lower limb		1		1
<b>TOTAL: LOWER LIMB</b>	<b>0</b>	<b>11</b>	<b>63</b>	<b>74</b>
Several locations	1	2	6	9
General locations			4	4
Unspecified locations		1		1
<b>GRAND TOTAL</b>	<b>2</b>	<b>52</b>	<b>192</b>	<b>246</b>

Table 6

**SEVERITY OF INJURY AND KIND OF ACCIDENT  
APRIL 1999 - MARCH 2000(p)**

KIND OF INJURY	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Contact with moving machinery or material being machined		5	4	9
Struck by moving, including flying or falling object	1	13	36	50
Struck against something fixed or stationary			10	10
Injured whilst handling, lifting or carrying		4	64	68
Slip, trip or fall on same level		8	29	37
Fall from a height				
Up to and including 2 metres		7	25	32
Over 2 metres		3	3	6
Height not stated		1	3	4
TOTAL	0	11	31	42
Drowning or asphyxiation			2	2
Exposure to fire			1	1
Exposure to or contact with a harmful substance		2		2
Exposure to an explosion	1		1	2
Contact with electricity or an electrical discharge		2		2
Injuries caused by assault		1		1
Other kind of accident		4	14	18
Not known		2		2
<b>GRAND TOTAL</b>	<b>2</b>	<b>52</b>	<b>192</b>	<b>246</b>

Table 7

**SEVERITY OF INJURY AND AGE OF INJURED PERSON  
APRIL 1999 - MARCH 2000(p)**

AGE OF INJURED PERSON	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
16 - 19		2	11	13
20 - 24		5	26	31
25 - 29		7	28	35
30 - 34	1	13	33	47
35 - 39		5	35	40
40 - 44	1	11	32	44
45 - 49		3	18	21
50 - 54		2	5	7
55 - 59		2	3	5
60 - 64				0
Not recorded		2	1	3
<b>TOTAL</b>	<b>2</b>	<b>52</b>	<b>192</b>	<b>246</b>

Table 8

**SEVERITY OF INJURY AND OPERATION  
APRIL 1999 - MARCH 2000(p)**

OPERATION	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Production		1	15	16
Drilling/workover		13	40	53
Maintenance		15	51	66
Diving	1	2	9	12
Construction/commissioning		2	4	6
Deck operations	1	13	32	46
Domestic/catering		2	19	21
Modification of plant/structures		1	1	2
Transport			7	7
Other		3	14	17
<b>TOTAL</b>	<b>2</b>	<b>52</b>	<b>192</b>	<b>246</b>



Table 9

**SEVERITY OF INJURY AND BROAD INCIDENT TYPE  
APRIL 1999 - MARCH 2000(p)**

BROAD INCIDENT TYPE	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Loss of containment			1	1
Fire/ explosion			1	1
Air transport			2	2
Sea transport		1	1	2
Slips/ trips/ falls		20	79	99
Falling objects	1	4	7	12
Handling goods/ materials		4	45	49
Lifting/ crane operations		7	19	26
Use of hand tool		1	7	8
Use of machinery		7	11	18
Exposure/ contact with harmful substances		2		2
Diving related	1	2	9	12
Electrical		2		2
Structural/ foundation		1		1
Mooring				0
Radiation				0
Other		1	10	11
<b>TOTAL</b>	<b>2</b>	<b>52</b>	<b>192</b>	<b>246</b>

Table 10

**SUMMARY OF ILL HEALTH  
APRIL 1996 - MARCH 2000(p)**

<b>DISEASE CODE</b>	<b>DESCRIPTION</b>	<b>1996/97</b>	<b>1997/98</b>	<b>1998/99</b>	<b>1999/2000p</b>	<b>TOTAL</b>
<b>5</b>	<b>Decompression illness</b>		2	3	1	<b>6</b>
<b>10</b>	<b>Beat knee</b>				1	<b>1</b>
<b>12</b>	<b>Inflammation of tendons</b>			1	1	<b>2</b>
<b>43</b>	<b>Asbestosis</b>		4			<b>4</b>
<b>45</b>	<b>Dermatitis</b>	6	1	4	2	<b>13</b>
<b>48</b>	<b>Chickenpox</b>	2	13	6	6	<b>27</b>
<b>54</b>	<b>Food poisoning</b>	1	1	1 *	1	<b>4</b>
<b>58</b>	<b>Meningitis</b>	1		1		<b>2</b>
<b>65</b>	<b>Rubella</b>				1	<b>1</b>
	<b>TOTAL</b>	<b>10</b>	<b>21</b>	<b>16</b>	<b>13</b>	<b>60</b>

\* This incident resulted in 12 individuals being affected

Table 11

## BREAKDOWN OF DANGEROUS OCCURRENCE BY TYPE APRIL 1999 - MARCH 2001(p)

<b>DANGEROUS OCCURRENCE</b>		
<b>TYPE</b>	<b>DESCRIPTION</b>	<b>NUMBER</b>
<b>01</b>	Failure of lifting machinery etc.	68
<b>02</b>	Failure of pressure systems	15
<b>03</b>	Failure of a freight container	
<b>05</b>	Electrical short circuit or overload	10
<b>06</b>	Certain incidents involving explosives	
<b>07</b>	Release of escape of a biological agent	1
<b>08</b>	Malfunction of radiation generators etc.	5
<b>09</b>	Malfunction of breathing apparatus	1
<b>10</b>	Certain incidents in relation to a diving operation	12
<b>11</b>	Collapse of scaffolding	
<b>13</b>	Certain incidents in relation to a well	64
<b>14</b>	Certain incidents in respect of a pipeline or pipeline works	9
<b>73</b>	Release of petroleum hydrocarbon on or from an offshore installation	207
<b>74</b>	Fire or explosion other than type 73	39
<b>75</b>	Release or escape of a dangerous substance other than petroleum hydrocarbon	12
<b>76</b>	Collapse of an offshore installation or its plant	1
<b>77</b>	Failure of equipment required to maintain a floating installation on station; objects dropped on an installation, attendant vessel or into water; or damage to installation from adverse weather conditions	163
<b>78</b>	Collision between a vessel or aircraft and an installation	16
<b>79</b>	Occurrences with potential for collision between a vessel and an installation	9
<b>80</b>	Subsidence or local collapse of seabed near installation	
<b>81</b>	Loss of stability or buoyancy of an installation	
<b>82</b>	Evacuation of an installation	1
<b>83</b>	Persons falling more than 2 meters into water	
<b>TOTAL</b>		<b>633</b>

Figure 1

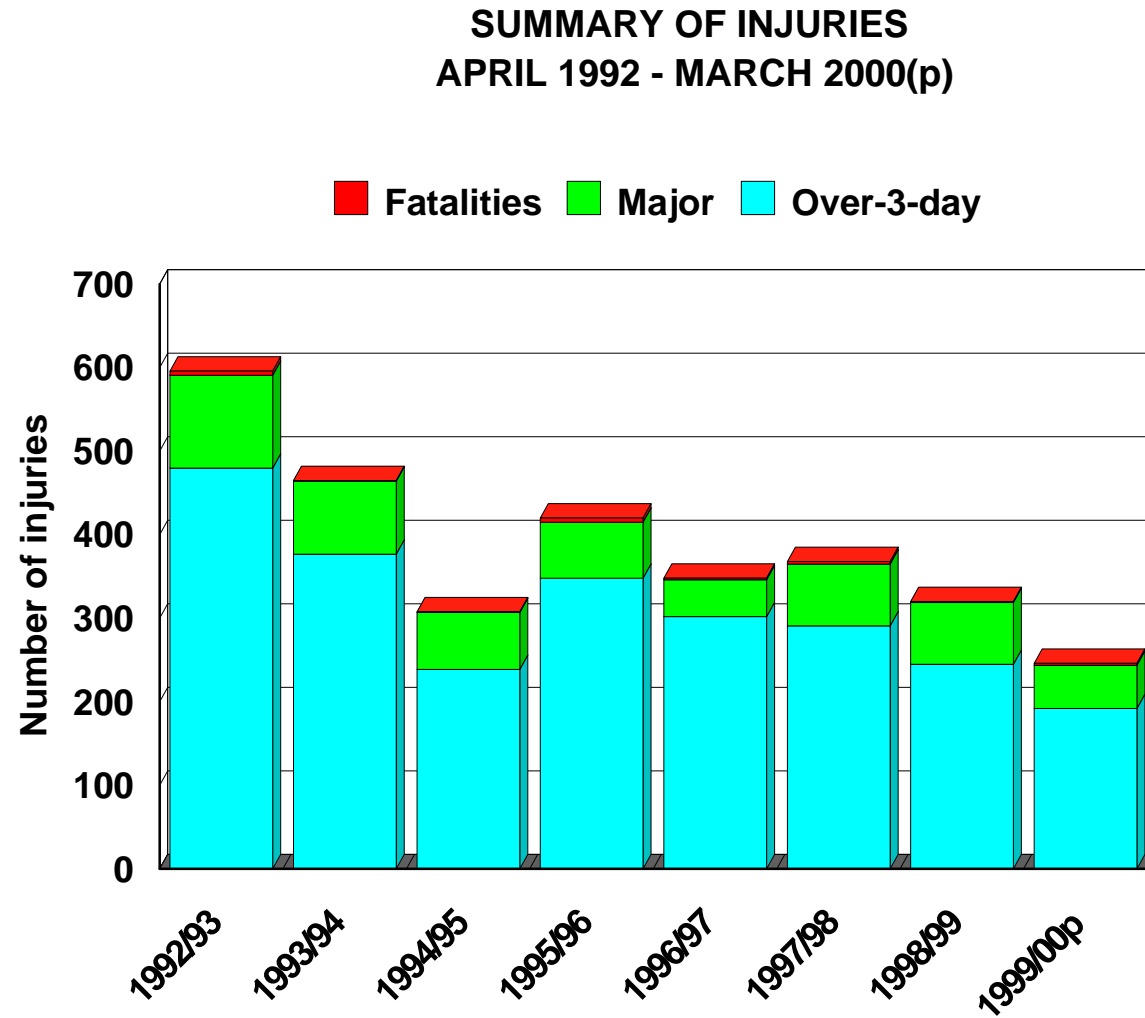


Figure 2

**COMBINED FATAL AND MAJOR INJURY RATE PER 100,000 WORKERS  
APRIL 1992 - MARCH 2000(p)**

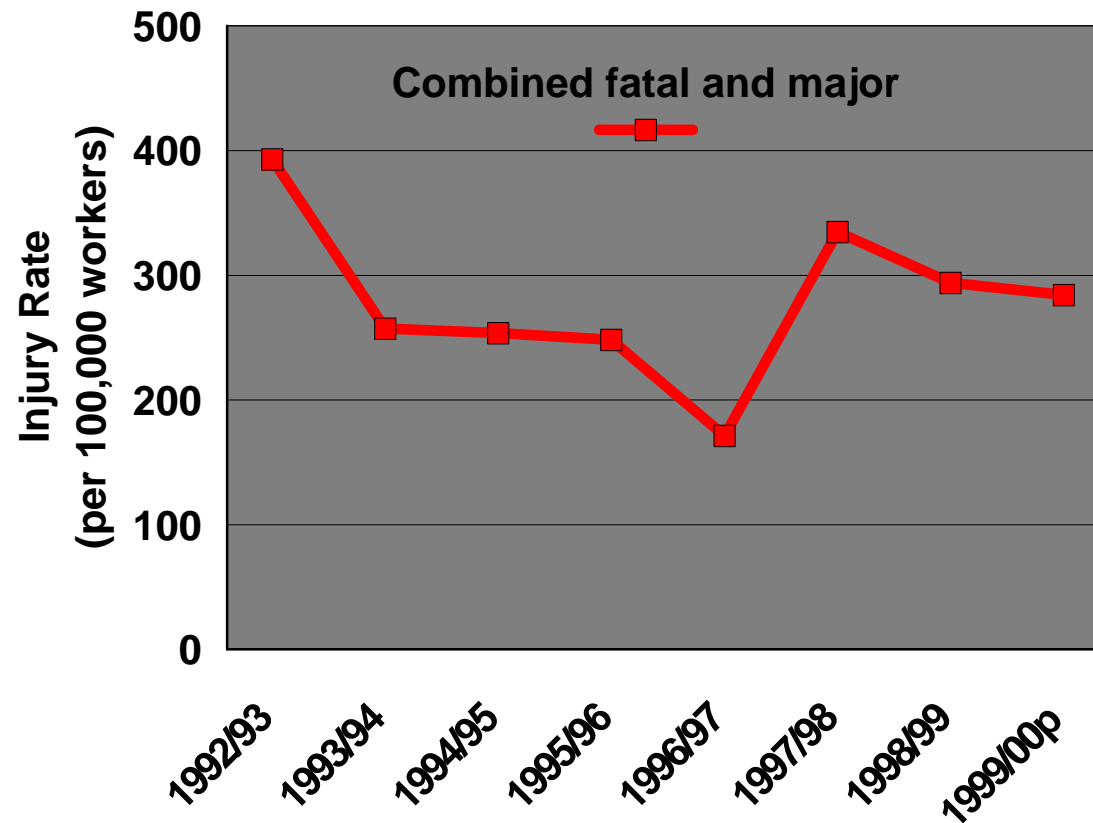


Figure 3

**OVER-3-DAY INJURY RATE PER 100,000 WORKERS  
APRIL 1992 - MARCH 2000(p)**

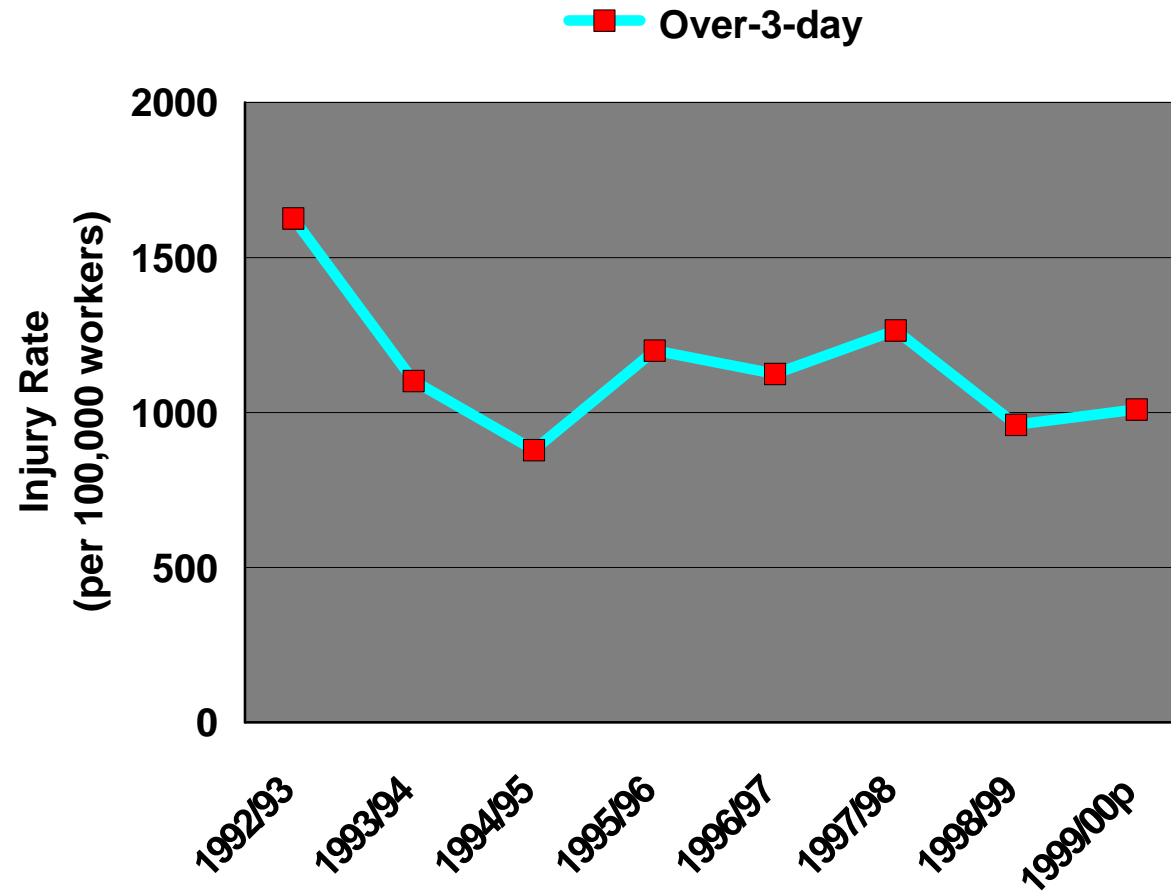


Figure 4a:

**3-YEAR ROLLING AVERAGE OF NUMBER OF INJURIES  
APRIL 1991 - MARCH 2000(p)**

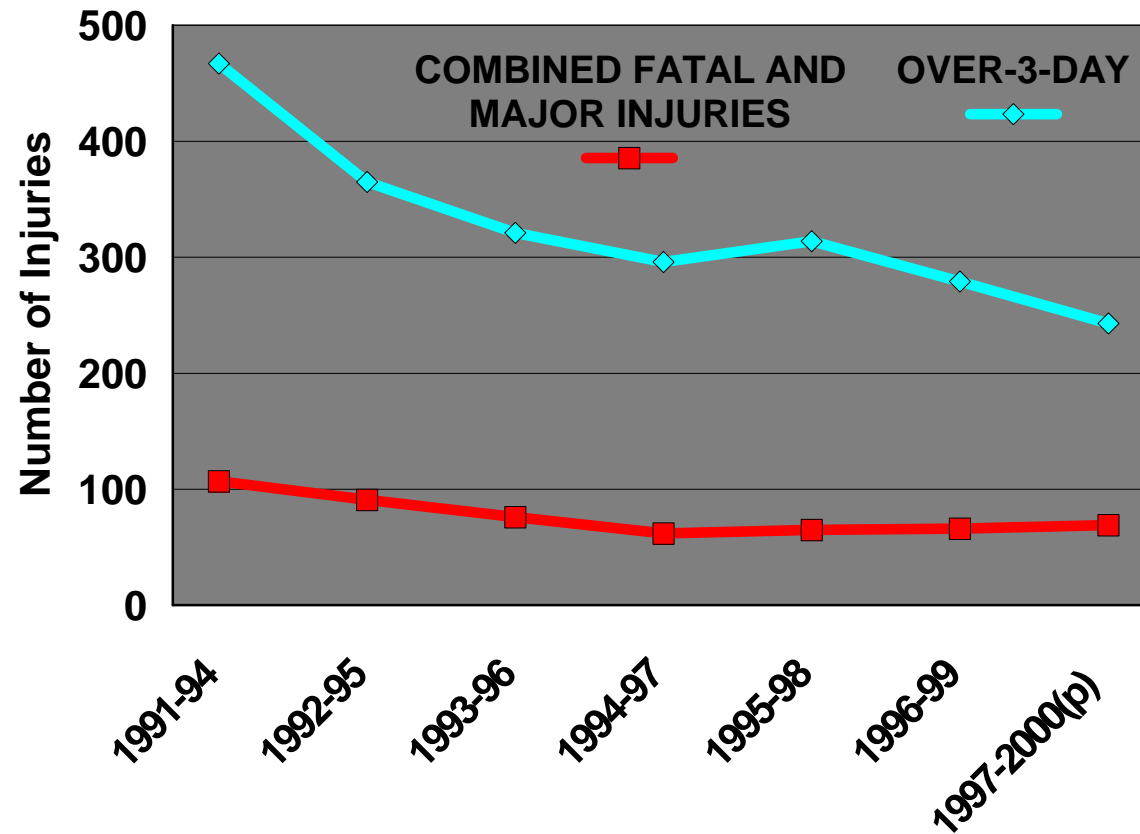


Figure 4b:

**3-YEAR ROLLING AVERAGE OF INJURY RATES  
APRIL 1991 - MARCH 2000(p)**

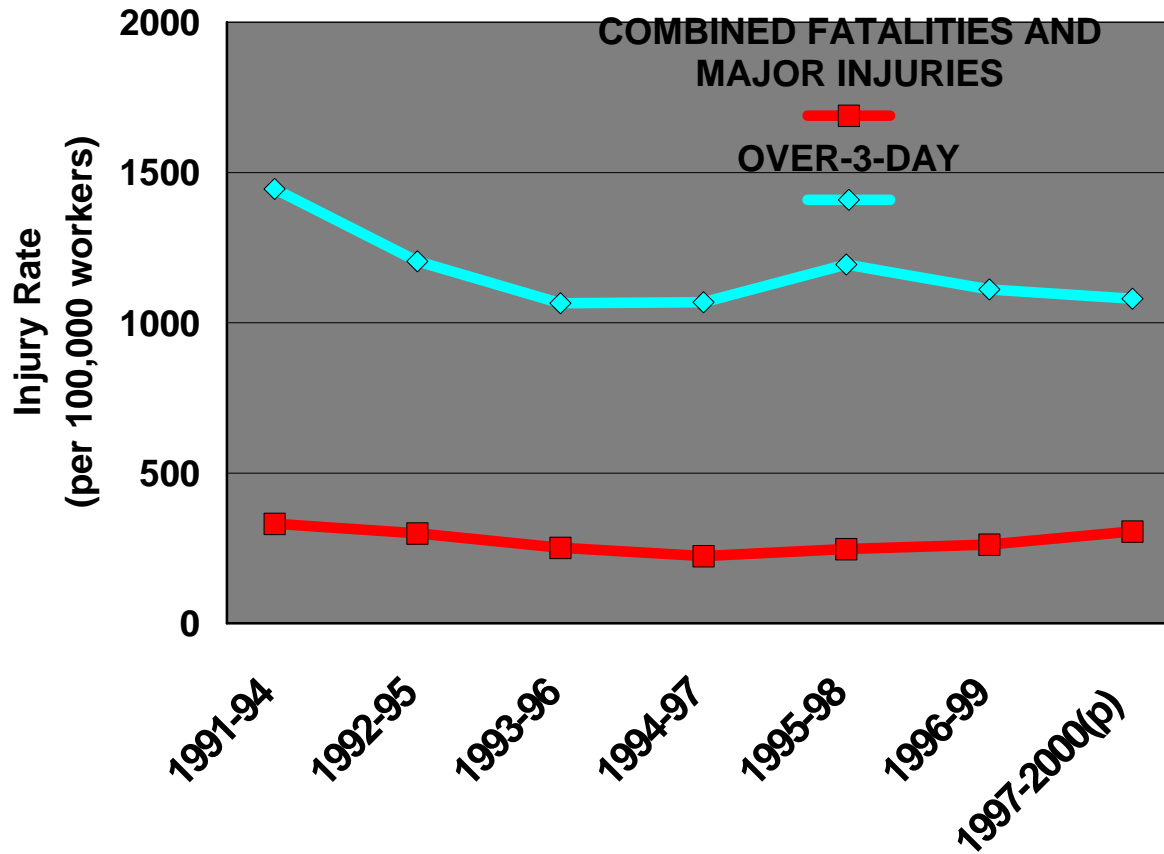
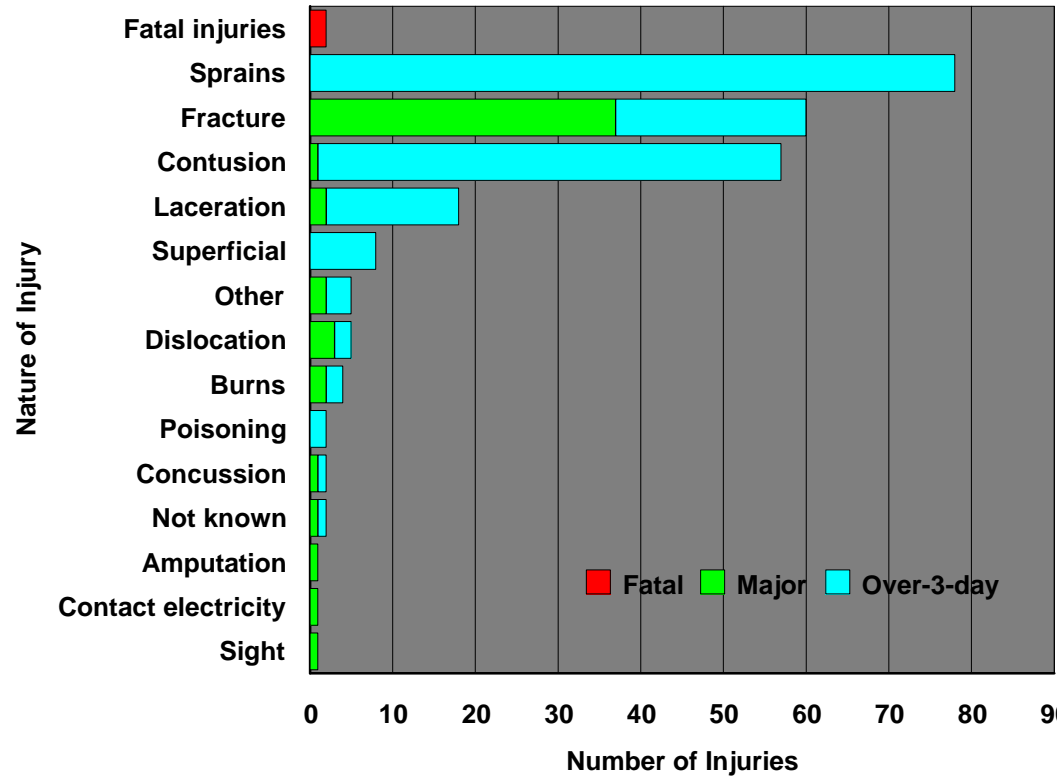


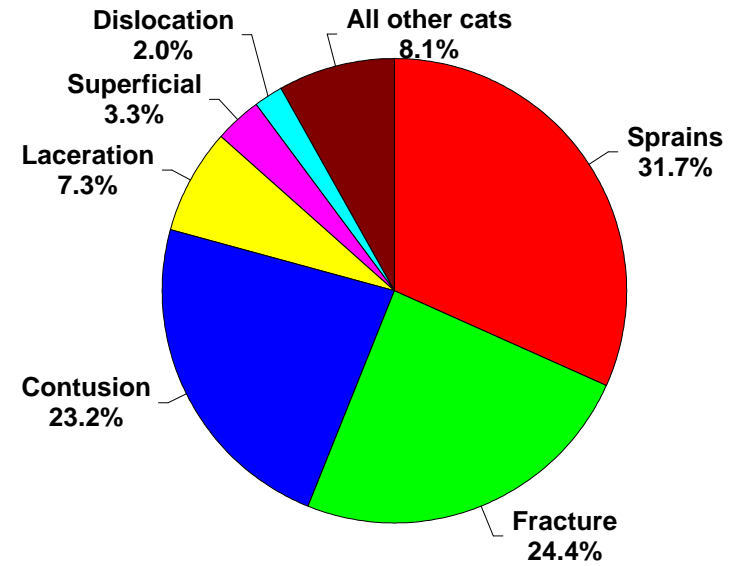


Figure 5a and 5b

**SEVERITY OF INJURY AND NATURE OF INJURY  
APRIL 1999 - MARCH 2000 (p)**



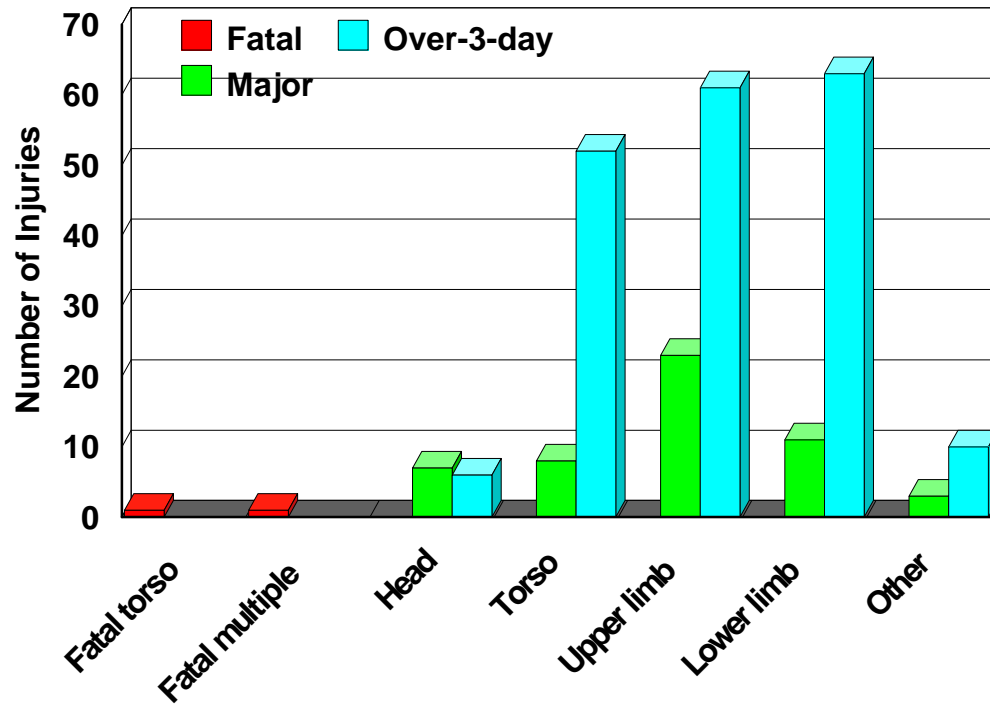
**Fig 5a  
BY CATEGORY OF INJURY**



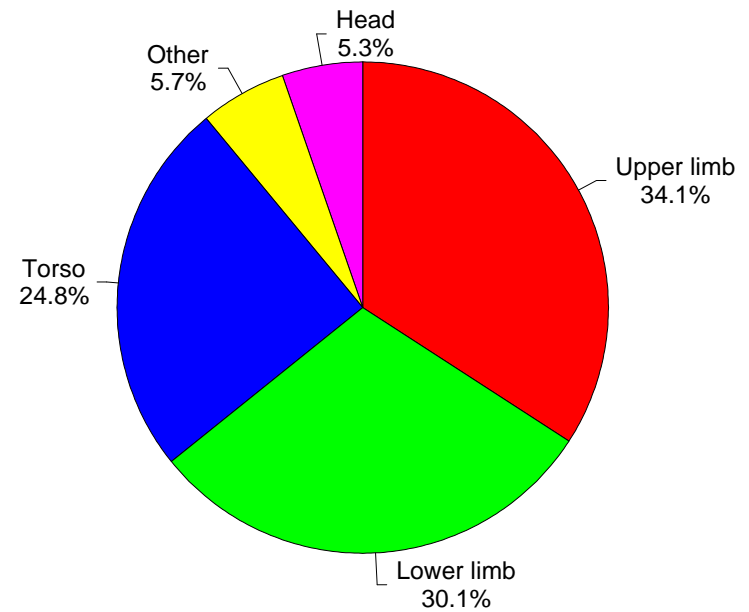
**Fig 5b  
ALL CATEGORIES OF INJURY**

Figures 6a and 6b

**SEVERITY OF INJURY AND PART OF BODY INJURED  
APRIL 1999-MARCH 2000 (p)**



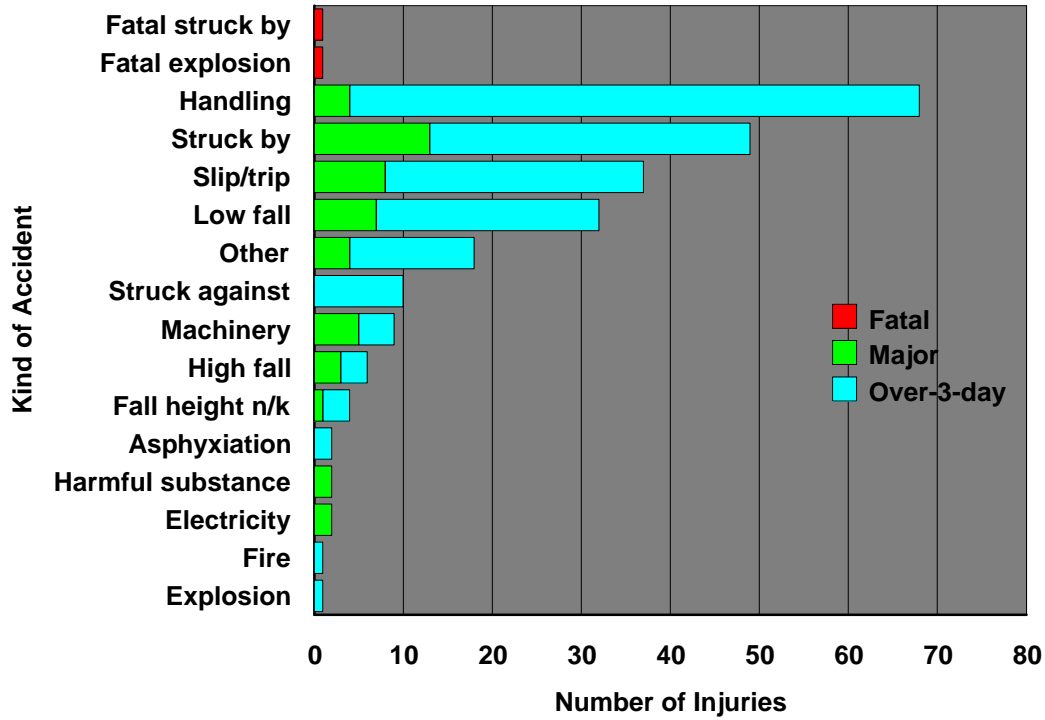
**Fig 6b  
BY CATEGORY OF INJURY**



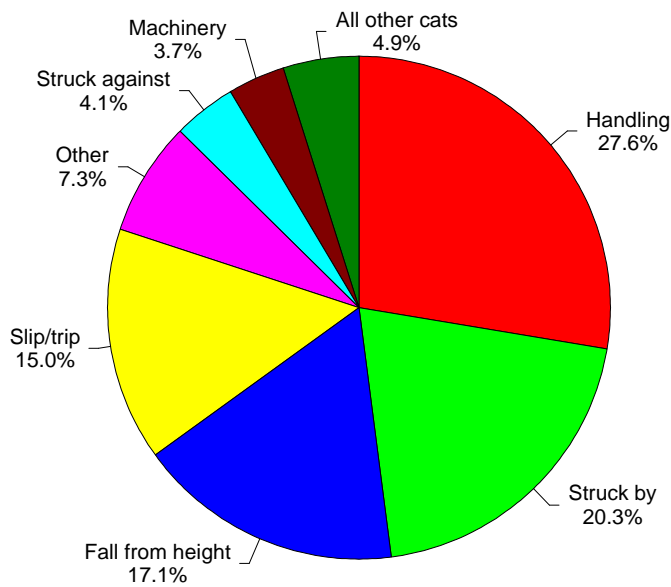
**Fig 6a  
ALL CATEGORIES OF INJURY**



**Figure 7a & 7b**  
**SEVERITY OF INJURY AND KIND OF ACCIDENT**  
**APRIL 1999-MARCH 2000 (p)**



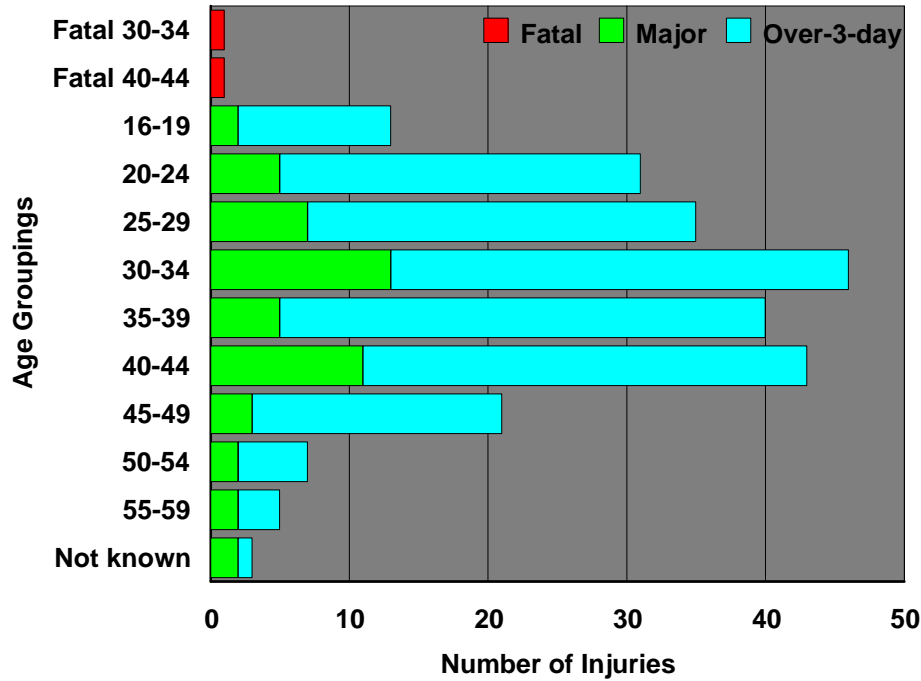
**Fig 7a - BY CATEGORY OF INJURY**



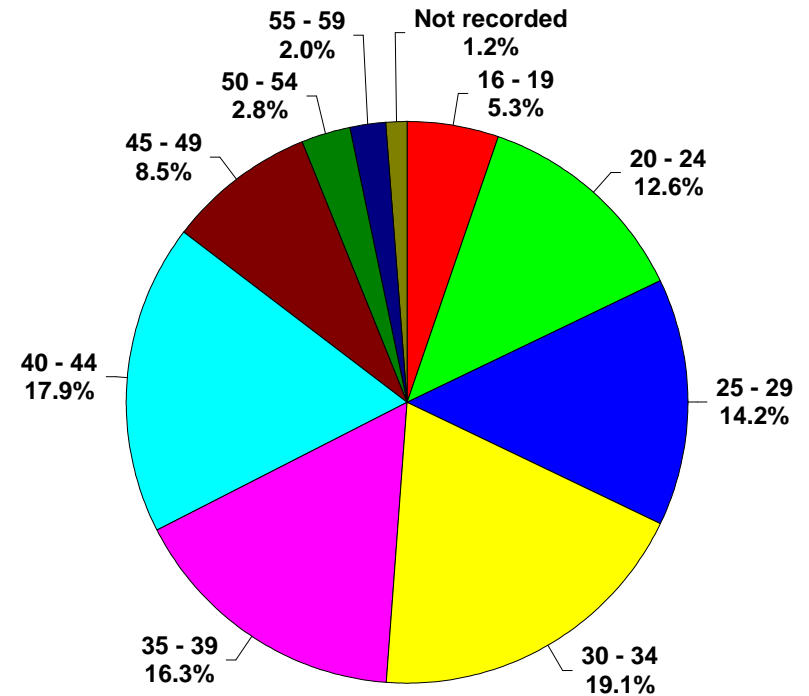
**Fig 7b - ALL CATEGORIES OF INJURY**

Figures 8a and 8b

### SEVERITY AND AGE OF INJURED PERSON APRIL 1999-MARCH 2000 (p)



**Fig 8a**  
**BY CATEGORY OF INJURY**



**Fig 8b**  
**ALL CATEGORIES OF INJURY**

Figures 9a and 9b

### SEVERITY OF INJURY AND OPERATION APRIL 1999-MARCH 2000 (p)

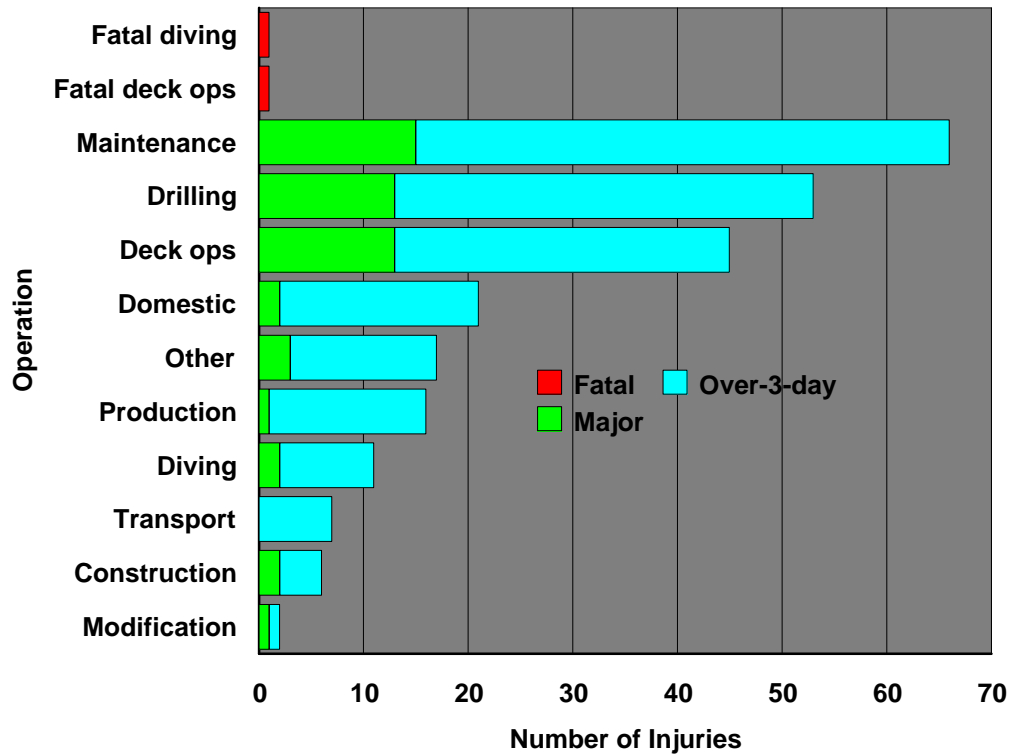


Fig 9a  
BY CATEGORY OF INJURY

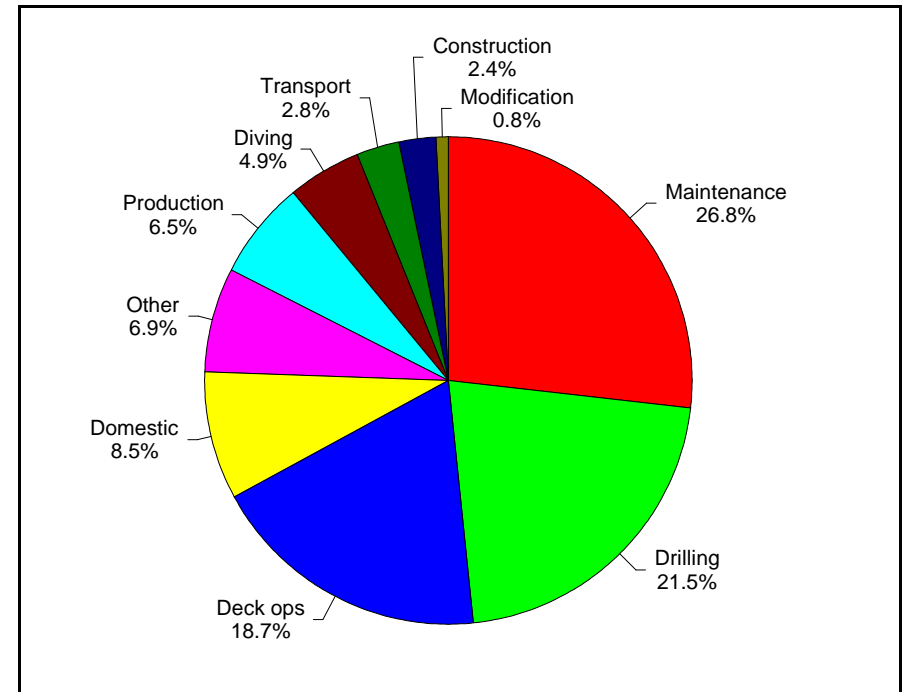
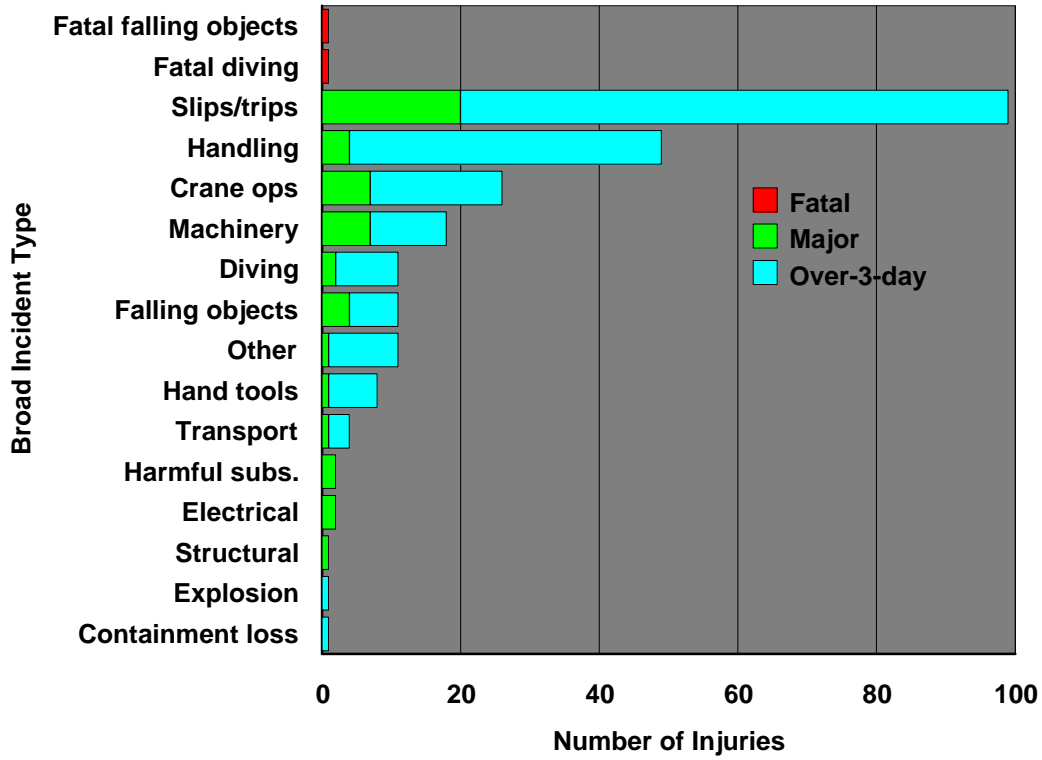
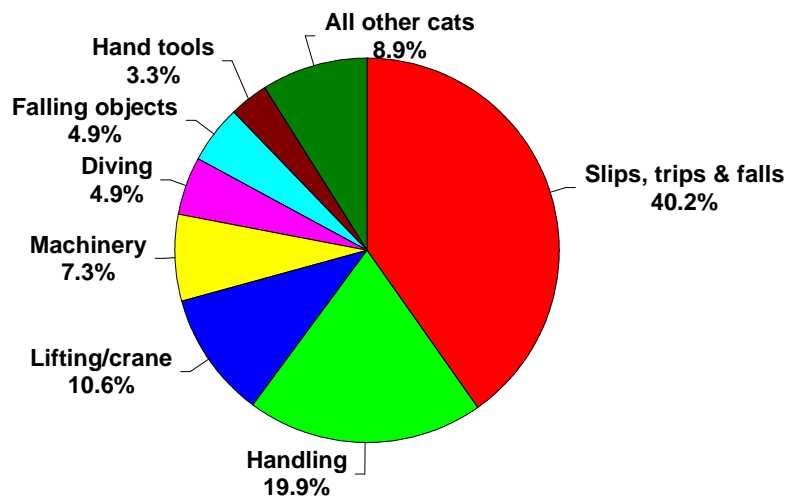


Fig 9b  
ALL CATEGORIES OF INJURY

**Figures 10a and 10b**  
**SEVERITY OF INJURY AND BROAD INCIDENT TYPE**  
**APRIL 1999-MARCH 2000 (p)**



**Fig 10a - BY CATEGORY OF INJURY**



**Fig 10b -**

**ALL CATEGORIES OF INJURY**

Table 1

## SUMMARY OF INJURIES AND DANGEROUS OCCURRENCES

**APRIL 1998 - MARCH 1999**

<b>FATALITIES</b>	1
<b>MAJOR</b>	74
<b>COMBINED FATALITIES AND MAJOR INJURIES</b>	75
<b>OVER-3-DAY</b>	245
<b>DANGEROUS OCCURRENCES</b>	693

Table 2

## SUMMARY OF INJURY RATES (per 100,000 workers)

**APRIL 1998 - MARCH 1999**

<b>ESTIMATED WORKFORCE<sup>9</sup></b>	<b>25,500</b>
<b>FATALITIES</b>	3.9
<b>MAJOR</b>	290.2
<b>COMBINED FATALITIES AND MAJOR INJURIES</b>	294.1
<b>OVER-3-DAY</b>	960.8

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<sup>9</sup> From Inland Revenue offshore population surveys for the period shown.



Table 3

**SUMMARY OF ILL HEALTH**  
**APRIL 1998 - MARCH 1999**

<b>DISEASE CODE</b>	<b>DESCRIPTION</b>	<b>1998/99</b>
<b>5</b>	<b>Decompression illness</b>	<b>3</b>
<b>10</b>	<b>Beat knee</b>	
<b>12</b>	<b>Inflammation of tendons</b>	<b>1</b>
<b>43</b>	<b>Asbestosis</b>	
<b>45</b>	<b>Dermatitis</b>	<b>4</b>
<b>48</b>	<b>Chickenpox</b>	<b>6</b>
<b>54</b>	<b>Food poisoning</b>	<b>1 *</b>
<b>58</b>	<b>Meningitis</b>	<b>1</b>
<b>65</b>	<b>Rubella</b>	
	<b>TOTAL</b>	<b>16</b>

\* This particular incident resulted in 12 individuals being affected

Table 4

**SEVERITY OF INJURY AND NATURE OF INJURY  
APRIL 1998 - MARCH 1999**

NATURE OF INJURY	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Amputation		12		12
Poisoning, gassing and asphyxiation				0
Burns		2	4	6
Concussion and internal injuries		3		3
Contusions		1	39	40
Dislocation		1	4	5
Other injury caused by contact with electricity				0
Fracture		47	48	95
Laceration and open wounds		2	28	30
Loss of sight of eye		1		1
Injuries of more than one of the other natures	1	2	2	5
Natural Causes			1	1
Injuries not classified elsewhere		2	16	18
Injury not known		1	4	5
Sprains and strains			89	89
Superficial injuries			10	10
<b>TOTAL</b>	<b>1</b>	<b>74</b>	<b>245</b>	<b>320</b>

Table 5

## SEVERITY OF INJURY AND PART OF BODY INJURED APRIL 1998- MARCH 1999

SITE OF INJURY	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Eye		1		1
Ear				0
Other parts of face		2	1	3
Head excluding face		7	3	10
Several locations of head			4	4
<b>TOTAL: HEAD</b>	<b>0</b>	<b>10</b>	<b>8</b>	<b>18</b>
Neck			9	9
Back		1	46	47
Trunk		2	8	10
Several locations of torso			2	2
<b>TOTAL: TORSO</b>	<b>0</b>	<b>3</b>	<b>65</b>	<b>68</b>
One or more finger/ thumb(s)		13	71	84
Hand		5	19	24
Wrist		8	4	12
Rest of upper limb		12	11	23
Several locations of upper limb				0
<b>TOTAL: UPPER LIMB</b>	<b>0</b>	<b>38</b>	<b>105</b>	<b>143</b>
One or more toes			11	11
Foot		9	11	20
Ankle		11	18	29
Rest of lower limb		1	25	26
Several locations of lower limb		1		1
<b>TOTAL: LOWER LIMB</b>	<b>0</b>	<b>22</b>	<b>65</b>	<b>87</b>
Several locations	1	1	2	4
General locations				0
Unspecified locations				0
<b>GRAND TOTAL</b>	<b>1</b>	<b>74</b>	<b>245</b>	<b>320</b>

**Table 6**  
**SEVERITY OF INJURY AND KIND OF ACCIDENT**

## APRIL 1998 - MARCH 1999

KIND OF INJURY	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
Contact with moving machinery or material being machined		3	13	16
Struck by moving, including flying or falling object		19	52	71
Struck by moving vehicle			1	1
Struck against something fixed or stationary		3	6	9
Injured whilst handling, lifting or carrying		2	63	65
Slip, trip or fall on same level		22	38	60
Fall from a height				0
Up to and including 2 metres		6	13	19
Over 2 metres	1	2		3
Height not stated		1	2	3
TOTAL	1	9	15	25
Drowning or asphyxiation				0
Trapped by something, collapsing or overturning			2	2
Exposure to fire			2	2
Exposure to or contact with a harmful substance		1	1	2
Exposure to an explosion				0
Contact with electricity or an electrical discharge				0
Injuries caused by assault				0
Other kind of accident		15	52	67
Not known				0
GRAND TOTAL	1	74	245	320

Table 7

**SEVERITY OF INJURY AND AGE OF INJURED PERSON  
APRIL 1998 - MARCH 1999**

AGE OF INJURED PERSON	SEVERITY OF INJURY			ALL INJURIES
	FATAL	MAJOR	OVER-3-DAY	
16 - 19			2	2
20 - 24		5	18	23
25 - 29		4	37	41
30 - 34	1	18	39	58
35 - 39		11	50	61
40 - 44		10	39	49
45 - 49		5	26	31
50 - 54		9	22	31
55 - 59		6	6	12
60 - 64		1	2	3
Not recorded		5	4	9
<b>TOTAL</b>	<b>1</b>	<b>74</b>	<b>245</b>	<b>320</b>

Table 8

**BREAKDOWN OF DANGEROUS OCCURRENCE BY TYPE**

## APRIL 1998 - MARCH 1999

<b>DANGEROUS OCCURRENCE</b>		
<b>TYPE</b>	<b>DESCRIPTION</b>	<b>NUMBER</b>
<b>01</b>	Failure of lifting machinery etc.	74
<b>02</b>	Failure of pressure systems	17
<b>03</b>	Failure of a freight container	1
<b>05</b>	Electrical short circuit or overload	13
<b>06</b>	Certain incidents involving explosives	1
<b>07</b>	Release of escape of a biological agent	5
<b>08</b>	Malfunction of radiation generators etc.	1
<b>09</b>	Malfunction of breathing apparatus	0
<b>10</b>	Certain incidents in relation to a diving operation	24
<b>11</b>	Collapse of scaffolding	2
<b>13</b>	Certain incidents in relation to a well	93
<b>14</b>	Certain incidents in respect of a pipeline or pipeline works	15
<b>73</b>	Release of petroleum hydrocarbon on or from an offshore installation	197
<b>74</b>	Fire or explosion other than type 73	49
<b>75</b>	Release or escape of a dangerous substance other than petroleum hydrocarbon	16
<b>76</b>	Collapse of an offshore installation or its plant	1
<b>77</b>	Failure of equipment required to maintain a floating installation on station; objects dropped on an installation, attendant vessel or into water; or damage to installation from adverse weather conditions	157
<b>78</b>	Collision between a vessel or aircraft and an installation	19
<b>79</b>	Occurrences with potential for collision between a vessel and an installation	5
<b>80</b>	Subsidence or local collapse of seabed near installation	1
<b>81</b>	Loss of stability or buoyancy of an installation	1
<b>82</b>	Evacuation of an installation	1
<b>83</b>	Persons falling more than 2 metres into water	0
<b>TOTAL</b>		<b>693</b>

# Injury / Incident data questionnaire

To help improve the quality of offshore data dissemination please answer the following questions :

1. What is your connection with the Offshore Oil & Gas Industry ?

Oil Company management	<input type="checkbox"/>	Consultant	<input type="checkbox"/>	Academic	<input type="checkbox"/>
Oil Company Employee	<input type="checkbox"/>	Trade Union	<input type="checkbox"/>	Journalist	<input type="checkbox"/>
Service Company management	<input type="checkbox"/>	Industry Association Rep.	<input type="checkbox"/>	Other (please state below)	
Service Company Employee	<input type="checkbox"/>				

2. Does report OTO \_\_\_\_\_ satisfy your requirements with regard to offshore accident / incident data ?

Completely	<input type="checkbox"/>	More than 50%	<input type="checkbox"/>	Poorly	<input type="checkbox"/>
Not at all	<input type="checkbox"/>				

3. Please indicate areas in which you think a change would be beneficial.

More/less discussion	<input type="checkbox"/>	More/less analysis	<input type="checkbox"/>	More/less tables	<input type="checkbox"/>
More/less graphics	<input type="checkbox"/>	More/less figures	<input type="checkbox"/>	Other (please state)	

4. To what use do you put the data ?

Safety case Development	<input type="checkbox"/>	Project Development	<input type="checkbox"/>	Health / safety management	<input type="checkbox"/>
Reliability and / or Availability studies	<input type="checkbox"/>	Design	<input type="checkbox"/>	Industrial Relations	<input type="checkbox"/>
Risk Assessment	<input type="checkbox"/>	Other (please state)			

5. Would you like to receive such reports on an annual basis ?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

**If you would like to receive the report annually please provide contact address.**

6. If "Yes" to Q.5, would you be prepared to pay a nominal charge to cover production costs for any future reports ?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

7. Should details on Hydrocarbon Releases be reported separately ?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

Please return the completed form to : HSE Offshore Safety Division, OD 1.6,  
Room 201b,  
Merton House,  
Stanley Road,  
BOOTLE L20 3DL

**Thank you for completing this form**

