

INDUSTRY SECTOR PROFILE CHEMICAL PRODUCTION INDUSTRY 2002/03

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INTRODUCTION

1. This profile provides key statistics on safety and enforcement matters for the chemical production industry (as defined by Standard Industrial Classification 1992 Group 241 and 24200 1995/96).
2. The profile concentrates on details and trends for fatal, major and over 3- day injuries to employees in the chemical production industry, and makes comparisons with those found in the chemical industry as a whole for 2002/03 only. Comparisons cannot be made to previous years, as this is the first year that the chemical production industry sector profile has been produced.
3. Injury and dangerous occurrence figures in this report are based on injuries and incidents reported under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR '95). These Regulations came into force on 1 April 1996 and replaced RIDDOR '85. The definitions of injuries reported under RIDDOR '95 are given at Appendices 1 and 2.
4. As the number of injuries to self-employed people and members of the public in the chemical production industry is relatively low, the profile does not provide any great detail of these injuries, other than the summary data given in Table 1.
5. In 2002/03, figures showed there were 479 injuries to employees reported to all enforcing authorities for the chemical production industry (0 fatal injuries, 138 major injuries and 341 over 3-day injuries). The all reported injury rate for the chemical production industry was 770.09 per 100,000 employees, lower than the rate of 861.8 for the chemical industry. See Table 2.
6. Information on enforcement action is also included in this profile.

EMPLOYMENT IN THE INDUSTRY

7. In 2002/03, the total employment figures for the chemical production industry consisted of around 62200 employees, 27% of the employment total for the chemical industry as a whole (228400 employees).

FATAL INJURIES (TABLES 1 AND 2)

8. There were 0 fatal injuries in the chemical production industry in 2002/03.

MAJOR INJURIES (TABLES 1 AND 2)

9. The number of reported major injuries was 138 in 2002/03. The major injury rate in the chemical production industry was higher 221.86 (per 100,00 employees) compared to 173.2 in the chemical industry.

OVER 3-DAY INJURIES (TABLES 1 AND 2)

10. The number of reported over 3-day injuries was 341 in 2002/03. The over 3-day injury rate in the chemical production industry was lower than in the chemical industry, 548.23 compared to 687.7.

INDUSTRIAL ACTIVITIES WITHIN THE CHEMICAL PRODUCTION INDUSTRY (TABLES 3 AND 3a)

11. Tables 3 and 3a show injuries and rates respectively from 2002/03 by SIC 92 group.
12. The more detailed breakdowns provided in most of the subsequent tables and figures are based on those injuries reported to HSE's Field Operations Directorate; Hazardous Installations Directorate, Land Division (formerly the Chemicals and Hazardous Installations Division); Nuclear Safety Division (for conventional safety) and local authorities.

KIND OF ACCIDENT (TABLE 4 AND FIGURES 1 AND 2)

13. The analysis of major injuries in the chemical production industry shows that the most common cause in 2002/03 was a slip, trip or fall on the same level, (41). The next most common types of injury were exposure to or contact with a harmful substance (28) and handling accidents, (19).
14. A comparison with major injuries shows that slips, trips or falls on the same level accounted for 29.7% in the chemical production industry and 32% in chemical overall. The distribution of the most common kinds of major injury to employees in the chemical production industry, in comparison with those in the chemical industry as a whole in 2002/03, are shown in Figure 1.
15. The analysis of over 3-day injuries shows that injuries whilst handling, lifting or carrying were the most common cause in 2002/03, (120). The next most common types of injury were a slip, trip or fall on the same level, (88) and exposure to or contact with a harmful substance, (40).
16. A comparison with over 3-day injuries shows that handling accidents accounted for 35.2% in the chemical production industry and 38% in the chemical industry. Injuries caused by a slip, trip or fall accounted for 25.8% in the chemical production industry and 24% in the chemical industry. The distributions of over 3-day injuries for the chemical production industry for 2002/03 are shown in Figure 2.

NATURE AND SITE OF INJURY (TABLES 5 AND 6 AND FIGURES 3 AND 4)

17. The analysis of major injuries in the chemical production industry shows that the most common were fractures to the wrist (21); upper limb (18); hand (9) and ankle (7). There were a total of 20 burns, 11 dislocations, 9 lacerations and 7 amputations. Major injuries occurring in the chemical production industry in 2002/03 are broken down by nature and site of injury in Table 5.
18. A comparison with major injuries in the chemical production and chemical industry as a whole shows that the proportion of burns in the chemical production industry 14.5% was higher than that for the chemical industry, with 13%. Asphyxiation injuries accounted for 3.6% of major injuries in the chemical production industry and 2% in the chemical industry. Amputated fingers accounted for 5% of major injuries in the chemical production industry compared to 4.8% in the chemical industry. Lacerations were more common in the chemical production industry with 6.5% compared to 5% in the chemical industry. A percentage breakdown of major injuries by specific common nature and site

combinations, together with comparisons for chemical as a whole is shown in Figure 3.

19. The analysis of over 3-day injuries in the chemical production industry shows that the most common were sprains and strains, (137), some of which were to the back (69); ankle (18); lower limb (14) and upper limb (13). There were 69 contusions; 30 burns, 27 lacerations; 20 fractures and 18 superficial injuries. Over 3-day injuries occurring in the chemical production industry in 2002/03 are broken down by nature and site of injury in Table 6.
20. A comparison with over 3-day injuries in the chemical production industry and chemical industry as a whole shows that the proportion involving burns was higher in the chemical production industry 8.8% compared with 7.3% in the chemical industry. Sprains and strains were the most common type of over 3 day injury in the chemical production industry, accounting for 40.2% of the reports received, lower than in the chemical industry with 46.5%. A percentage breakdown of over 3-day injuries by specific common nature and site combinations, together with comparisons for chemical as a whole is shown in Figure 4.

PROCESS ENVIRONMENTS (TABLE 7)

21. Table 7 sets out the actual activity causing injury at the time of the accident. Care must be taken in the interpretation of these figures as those activities and processes with the greatest number of attributed injuries may also have the highest levels of employment.
22. Of all reported injuries in 2002/03, general handling accounted for 12.3%; general maintenance for 9.4% and other chemical reaction 6.3%. Of the specific chemical processes, chemical transfer was the most common cause of injury accounting for 4% of all reported injuries. The filling and discharging of chemicals caused 3.3%; chemical mixing 2.1% and chemical shaping 1%. However, 49.9% of all injuries were assigned to the category "other".

AGE AND SEX OF INJURED PEOPLE (TABLES 8A AND 8B)

23. There were 0 fatal injuries in the chemical production industry in 2002/03.
24. There were 138 major injuries in the chemical production industry in 2002/03. 132 were to male employees and 6 to female employees.
25. There were 341 over 3-day injuries in the chemical production industry in 2002/03. 314 were to male employees and 27 to female employees.
26. In addition to the breakdown by sex of injured person, Tables 8(a) and (b) also provides figures by severity of injury for various age bands in the chemical production industry. The most common age group of male employees who suffered an injury was 35-39, with 25-29 and 55-59 being the most common amongst female employees.

INVESTIGATED INJURIES (TABLE 9)

27. Within the chemical production industry in 2002/03, 30% of major injuries and 12% of over 3 day injuries were investigated.

DANGEROUS OCCURRENCES (TABLE 10)

28. Dangerous occurrences are certain kinds of incident, defined within RIDDOR, with a high potential to cause injury, and which are reportable whether or not that potential is realised. RIDDOR '95 updated the list of reportable dangerous occurrences. It includes general provisions as well as additional occurrences.
29. In 2002/03, there were 86 dangerous occurrences reported in the chemical production industry. The most common type of dangerous occurrence involved "the accidental release or escape of any substance in a quantity sufficient to cause the death, major injury or any other damage to the health of any person" (RIDDOR 95 – Ref Code 21). This type of dangerous occurrence accounted for 33.7% of all reported dangerous occurrences within the chemical production industry.
30. The "failure, collapse or overturning of lifting machinery, excavator, pile driving frame or mobile powered access platform" (RIDDOR 95 – Ref Code 01) was the second most common type of dangerous occurrence and accounted for 18.6% of all dangerous occurrences in the chemical production industry.
31. The "...explosion or fire occurring in any plant or premises which results in the stoppage of that plant for more than 24 hours" (RIDDOR 95 – Ref Code 19) accounted for a further 12.8% of all dangerous occurrences in the chemical production industry and was the third most common type.

ENFORCEMENT (TABLES 11 AND 12)

32. In the chemical production industry the number of enforcement notices (requirements) issued by HSE was 74 in 2002/03. Notices in 2002/03 consisted of 53 improvements; 16 immediate prohibitions; 4 deferred prohibitions and 1 COMAH Prohibition notice. The number of notices issued in the chemical production industry in 2002/03 will be partially driven by the inspection initiatives chosen for the year, and may not follow a trend.
33. In 2002/03, the numbers of informations laid (prosecutions under individual breaches of legislation) for offences occurring in the chemical production industry were 6.
34. In 2002/03, of the 6 informations laid for offences occurring in the chemical production industry, 6 resulted in a conviction. The average fine imposed for these convictions was £8450.

TABLE 1: INJURIES WITHIN THE CHEMICAL PRODUCTION INDUSTRY REPORTED TO ALL ENFORCING AUTHORITIES, 2002/03

Year ^(a)	EMPLOYEES				SELF-EMPLOYED				MEMBERS OF PUBLIC			TRAINEE	
	Fatal	Major	Over 3- Day	Total	Fatal	Major	Over 3-Day	Total	Fatal	Major	Total	Over 3-Day	Total
2002/03 ^(d)	0	138	341	479	0	6	1	7	0	1	1	0	0

(a) Years commencing 1 April.

(b) As defined by SIC92 1995/96 – 2002/03.

TABLE 2: EMPLOYEE INJURY RATES ^(a) WITHIN THE CHEMICAL PRODUCTION AND CHEMICAL INDUSTRIES ^(c), AS REPORTED TO ALL ENFORCING AUTHORITIES, 2002/03

Year ^(b)	Fatal		Major		Over 3-Day		Total	
	Chemical Production	Chemicals	Chemical Production	Chemicals	Chemical Production	Chemicals	Chemical Production	Chemicals
2002/03 ^(c)	0	0.9	221.86	173.2	548.23	687.7	770.09	861.8

(a) Incidence rates per 100,000 employees.

(b) Years commencing 1 April.

(c) As defined by SIC92 for 1995/96 – 2002/03.

TABLE 3: INJURIES TO EMPLOYEES WITHIN THE CHEMICAL PRODUCTION INDUSTRY AS REPORTED TO ALL ENFORCING AUTHORITIES, 2002/03

Standard Industrial Classification (1992) - Group	Fatal	Major	Over 3 Day	Total
241 Manufacture of basic chemicals and 24200 Manufacture of pesticides	0	138	341	479

TABLE 3a: EMPLOYEE INJURY RATES (PER 100 000 EMPLOYEES) IN THE CHEMICAL PRODUCTION INDUSTRY ^(a), 2002/03

Standard Industrial Classification (1992) - Group	Fatal and Major Injury Rate	All Reported Injury Rate
241 Manufacture of basic chemicals and 24200 Manufacture of pesticides	191.9	666.2

(a) As reported to all enforcing authorities.

TABLE 4: INJURIES TO EMPLOYEES IN THE CHEMICAL PRODUCTION INDUSTRY AS REPORTED TO ALL ENFORCING AUTHORITIES, 2002/03

KIND OF ACCIDENT	FATAL	MAJOR	OVER 3 DAY	TOTAL
	02/03	02/03	02/03	
Contact with moving machinery	0	10	15	25
Struck by moving inc flying/falling object	0	8	30	38
Struck by moving vehicle	0	3	8	11
Strike against something fixed or stationary	0	3	15	18
Injured whilst handling, lifting or carrying	0	19	120	139
Slip, trip or fall on same level	0	41	88	129
<i>Fall from a height:</i>				
<i>Up to and inc 2m</i>	0	13	6	19
<i>Over 2m</i>	0	4	1	5
<i>Height not stated</i>	0	2	4	6
Total falls	0	19	11	30
Trapped by something collapsing/overturning	0	0	1	1
Drowning or asphyxiation	0	0	2	2
Exposure to or contact with harmful substances	0	28	40	68
Exposure to fire	0	0	1	1
Exposure to an explosion	0	1	0	1
Contact with electricity or electrical discharge	0	2	1	3
Injured by an animal	0	0	1	1
Injuries caused by assault or violence	0	0	0	0
Other kind of accident	0	4	7	11
Injuries not classified by kind	0	0	1	1
TOTAL	0	138	341	479

TABLE 5: MAJOR INJURIES TO EMPLOYEES IN THE CHEMICAL PRODUCTION INDUSTRY AS REPORTED TO ALL ENFORCING AUTHORITIES, BY NATURE AND SITE, 2002/03

Site of Injury	Nature of Injury																
	Amputation	Loss of sight	Fracture	Dislocation	Concuss Internal	Laceration	Contusion	Burn	Asphyxiation	Strain	Superficial	Multiple	Electricity	Natural Cause	Other Known	Other NK	Total
Eye	0	0	0	0	0	0	0	12	0	0	1	0	0	0	1	0	14
Ear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Face-other parts	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
Head	0	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	4
Several head	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total: head	0	0	1	0	0	3	1	13	0	0	1	0	0	0	1	0	20
Neck	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Back	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Trunk	0	0	3	0	0	0	0	0	0	1	0	0	0	0	1	0	5
Several torso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total: torso	0	0	5	0	0	0	0	0	0	2	0	0	0	0	1	0	8
Finger	7	0	1	1	0	3	0	0	0	0	0	1	0	0	0	0	13
Hand	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Wrist	0	0	21	0	0	0	0	0	0	0	0	0	0	0	1	0	22
Upper limb	0	0	18	2	0	2	0	0	0	0	0	0	0	0	0	0	22
Several upper limb	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total: upper limb	7	0	49	3	0	5	0	1	0	0	0	1	0	0	1	0	67
Toe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foot	0	0	2	6	0	0	0	1	0	0	0	0	0	0	0	0	9
Ankle	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Lower limb	0	0	6	2	0	1	0	0	0	0	0	0	0	0	0	0	9
Several lower limb	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total: lower limb	0	0	15	8	0	1	0	2	0	0	0	0	0	0	0	0	26
Several locations	0	0	0	0	0	0	0	4	0	0	0	3	0	0	0	0	7
General locations	0	0	0	0	0	0	0	0	4	0	0	0	2	0	3	0	9
Unspecified locations	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
GRAND TOTAL	7	0	70	11	0	9	1	20	5	2	1	4	2	0	6	0	138

TABLE 6: OVER 3-DAY INJURIES TO EMPLOYEES IN THE CHEMICAL PRODUCTION INDUSTRY AS REPORTED TO ALL ENFORCING AUTHORITIES, BY NATURE AND SITE, 2002/03

Site of Injury	Nature of Injury																
	Amputation	Loss of sight	Fracture	Dislocation	Concussion Internal	Laceration	Contusion	Burn	Asphyxiation	Strain	Superficial	Multiple	Electricity	Natural Cause	Other Known	Other NK	Total
Eye	0	0	0	0	0	0	0	2	0	0	2	0	0	0	3	0	7
Ear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Face-other parts	0	0	0	0	0	1	0	3	0	0	0	0	0	0	1	0	5
Head	0	0	0	0	4	2	0	0	0	0	1	0	0	0	0	1	8
Several head	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total: head	0	0	0	0	4	3	0	5	0	0	3	0	0	0	4	1	20
Neck	0	0	0	0	0	0	0	1	0	5	0	0	0	0	1	0	7
Back	0	0	0	1	0	0	7	0	0	67	1	0	0	0	3	1	80
Trunk	0	0	0	0	0	0	15	0	0	5	0	0	0	0	0	1	21
Several torso	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total: torso	0	0	0	1	0	0	23	1	0	77	1	0	0	0	4	2	109
Finger	0	0	15	1	0	13	6	1	0	0	2	1	0	0	0	0	39
Hand	0	0	0	0	0	4	3	5	0	1	1	0	0	0	0	0	14
Wrist	0	0	0	1	0	1	1	0	0	4	1	0	0	0	0	0	8
Upper limb	0	0	1	0	0	3	8	4	0	13	3	1	0	0	2	0	35
Several upper limb	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Total: upper limb	0	0	16	2	0	21	18	10	0	18	8	2	0	0	2	0	97
Toe	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Foot	0	0	0	0	0	0	5	2	0	2	1	0	0	0	0	0	10
Ankle	0	0	0	0	0	0	1	0	0	18	0	0	0	0	0	0	19
Lower limb	0	0	0	0	1	2	8	4	0	14	1	0	0	0	1	0	31
Several lower limb	0	0	0	0	0	1	3	0	0	2	0	0	0	0	0	0	6
Total: lower limb	0	0	4	0	1	3	17	6	0	36	2	0	0	0	1	0	70
Several locations	0	0	0	0	0	0	11	8	0	5	4	0	0	0	1	0	29
General locations	0	0	0	0	1	0	0	0	11	1	0	0	0	0	1	1	15
Unspecified locations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
GRAND TOTAL	0	0	20	3	6	27	69	30	11	137	18	2	0	0	14	4	341

TABLE 7: INJURIES TO EMPLOYEES IN THE CHEMICAL PRODUCTION INDUSTRY, BY PROCESS ENVIRONMENT, AS REPORTED TO HSE 2002/03

Process Environment	Fatal	Major	Over 3 Day	Total
Admin	0	2	0	2
Chemical Drying Processes	0	0	0	0
Chemical Filling/Discharging	0	5	11	16
Chemical Mixing	0	1	9	10
Chemical Shaping	0	1	4	5
Chemical Size Reduction	0	0	0	0
Chemical Sterilising	0	0	0	0
Chemical Storage	0	0	0	0
Chemical Transfer	0	7	12	19
General Amenities	0	1	1	2
General Assembly	0	0	0	0
General Examination	0	0	0	0
General Handling	0	20	39	59
General Installing	0	0	0	0
General Laboratory Services	0	0	0	0
General Labouring	0	4	5	9
General Maintenance	0	16	29	45
General Other	0	0	0	0
General Packing	0	0	3	3
General Services	0	0	0	0
General Sorting	0	0	0	0
General Storing	0	2	14	16
General Waste Disposal	0	0	0	0
Heating Processes	0	0	0	0
Loading/Unloading	0	4	13	17
On-site transfer	0	0	0	0
Other Chemical Reaction	0	11	19	30
Other Plant Processes	0	0	0	0
Personnel Services	0	0	0	0
Sulphonation	0	0	0	0
Travel/Delivery	0	1	6	7
Other	0	63	176	239
Total	0	138	341	479

TABLE 8a: INJURIES TO MALE EMPLOYEES IN THE CHEMICAL PRODUCTION INDUSTRY AS REPORTED TO ALL ENFORCING AUTHORITIES, 2002/03

Age of injured person	Fatal	Major	Over 3 Day	Total
01-15	0	0	0	0
16-19	0	2	7	9
20-24	0	9	21	30
25-29	0	4	30	34
30-34	0	19	45	64
35-39	0	21	48	69
40-44	0	18	44	62
45-49	0	19	47	66
50-54	0	15	30	45
55-59	0	12	20	32
60-64	0	3	12	15
65 plus	0	0	1	1
Not known	0	10	9	19
Total	0	132	314	446

TABLE 8b: INJURIES TO FEMALE EMPLOYEES IN THE CHEMICAL PRODUCTION INDUSTRY AS REPORTED TO ALL ENFORCING AUTHORITIES, 2002/03

Age of injured person	Fatal	Major	Over 3 Day	Total
01-15	0	0	0	0
16-19	0	1	1	2
20-24	0	1	1	2
25-29	0	0	5	5
30-34	0	1	2	3
35-39	0	0	3	3
40-44	0	0	3	3
45-49	0	0	2	2
50-54	0	1	2	3
55-59	0	0	5	5
60-64	0	0	0	0
65 plus	0	1	1	2
Not known	0	1	2	3
Total	0	6	27	33

TABLE 9: PERCENTAGE OF MAJOR AND OVER 3 DAY INJURIES TO EMPLOYEES INVESTIGATED ^{NB} BY HSE'S HID* IN THE CHEMICAL PRODUCTION INDUSTRY, BY KIND OF ACCIDENT, 2002/03

	CHEMICAL PRODUCTION INDUSTRY						CHEMICAL INDUSTRY					
	Major Injuries	Number of major injuries investigated	Percentage of major injuries investigated	Over 3-day Injuries	Number of over 3-day injuries investigated	Percentage of over 3-day injuries investigated	Major Injuries	Number of major injuries investigated	Percentage of major injuries investigated	Over 3-day Injuries	Number of over-3-day injuries investigated	Percentage of over 3-day injuries investigated
Contact with moving machinery	10	7	70	15	2	13	27	21	78	69	27	39
Struck by moving, including flying/falling object	8	1	13	30	5	17	25	5	20	146	19	13
Struck by moving vehicle	3	1	33	8	3	38	22	8	36	41	10	24
Strike against something fixed or stationary	3	1	33	15	1	7	15	4	27	78	7	9
Injured whilst handling, lifting or carrying	19	5	26	120	6	5	49	12	24	601	46	8
Slip, trip or fall on same level	41	1	2	88	1	1	126	13	10	374	10	3
Falls from a height of which:												
- up to and including 2 metres	13	4	31	6	2	33	37	13	35	33	6	18
- over 2 metres	4	1	25	1	0	0	7	3	43	8	0	0
- height not stated	2	1	50	4	0	0	7	2	29	21	0	0
Total Falls	19	6	32	11	2	18	51	18	35	62	6	10
Trapped by something collapsing/overturning	0	0	0	1	0	0	1	0	0	2	0	0
Drowning or asphyxiation	0	0	0	2	1	50	1	1	100	2	1	0

TABLE 9 (CONTINUED)

	CHEMICAL PRODUCTION INDUSTRY						CHEMICAL INDUSTRY					
	Major Injuries	Number of major injuries investigated	Percentage of major injuries investigated	Over 3 day Injuries	Number of over 3 day injuries investigated	Percentage of over 3 day injuries investigated	Major Injuries	Number of major injuries investigated	Percentage of major injuries investigated	Over 3 day Injuries	Number of over 3 day injuries investigated	Percentage of over 3 day injuries investigated
Exposure to, or contact with, a harmful substance	28	17	61	40	20	50	58	31	53	143	58	41
Exposure to fire	0	0	0	1	0	0	1	0	0	2	1	50
Exposure to an explosion	1	1	100	0	0	0	4	4	100	0	0	0
Contact with electricity or electrical discharge	2	0	0	1	0	0	3	1	33	5	2	40
Any injury by an animal	0	0	0	1	0	0	0	0	0	1	0	0
Acts of violence	0	0	0	0	0	0	2	0	0	6	0	0
Other kind of accident	4	1	25	7	1	14	9	3	33	32	6	19
Injuries not classified by kind	0	0	0	1	0	0	1	1	100	4	0	0
TOTAL	138	41	30	341	42	12	395	122	31	1568	193	12

NB – The major and over 3-day injuries for the pharmaceutical industry are extracted from CIS and FOCUS. Please note: We cannot identify FOCUS injuries that have been investigated, so the number of injuries investigated is based on CIS data only.

TABLE 10: DANGEROUS OCCURRENCES¹ REPORTED TO HSE IN THE CHEMICAL PRODUCTION INDUSTRY, 2002/03

Part 1	(Notifiable in relation to any place of work)	02/03						
1	Failure, collapse or overturning of lifting machinery, excavator, pile driving frame or mobile powered access platform.	16						
2	The failure of any closed vessel including boiler or of any associated pipework, in which the internal pressure was above or below atmospheric pressure.	5						
3	The failure of any freight container in any of its load-bearing parts while it is being raised, lowered or suspended.	0						
4	Plant or equipment either comes into contact with overhead electric line in which the voltage exceeds 200 volts or causes an electrical discharge.	0						
5	Electrical short circuit, which results in the stoppage of the plant for more than 24 hours.	1						
6	Unintentional ignition or explosion of explosives.	1						
7	The release or escape of a biological agent likely to cause human infection or illness.	0						
8	The malfunction of radiation generators.	0						
9	Failure of breathing apparatus in service.	3						
10	Failure of any lifting or life support equipment during a diving operation, which puts a diver at risk.	0						
11	Complete or partial collapse of scaffold over 5m high.	0						
12	Any unintended collision of a train with any other train or vehicle (other than one recorded in part 4 of this table), which caused, or might have caused the death of or major injury to any person.	0						
13	Incidents in relation to a well (other than a well sunk for the purpose of the abstraction of water).	0						
14	Incidents in respect of a pipeline or pipeline works.	4						
15	Failure of fairground equipment in use or under test.	0						
16	Overturning or serious damage to a tank while conveying by road prescribed dangerous substances, or the uncontrolled release or fire involving the substance being	0						
17	Uncontrolled release or escape of a dangerous substance, or a fire involving the dangerous substance, when being conveyed by road in a vehicle.	6						
18	Collapse or partial collapse of any building or structure under construction involving over 5 tonnes of materials or any floor or wall of a building used as a place of work.	2						
19	An explosion or fire occurring in any plant or premises, which results in the stoppage of that plant for more than 24 hours.	11						
20	The sudden, uncontrolled release of flammable substances.	8						
21	The accidental release or escape of any substance in a quantity sufficient to cause the death, major injury or any other damage to the health of any person.	29						
41	The collapse of any storage bunker.	0						
43	An incident in which any person suffers an injury (not otherwise reportable under these regulations) which results from an explosion or from the discharge of any explosives for which he receives first-aid or medical	0						
44	Any incident in which any substance is ascertained to have been projected beyond a quarry boundary as a result of blasting operations in circumstances in which any person was or might have been endangered.	0						
	Total	86						

¹ Full definitions of dangerous occurrences can be found in *A Guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995*.

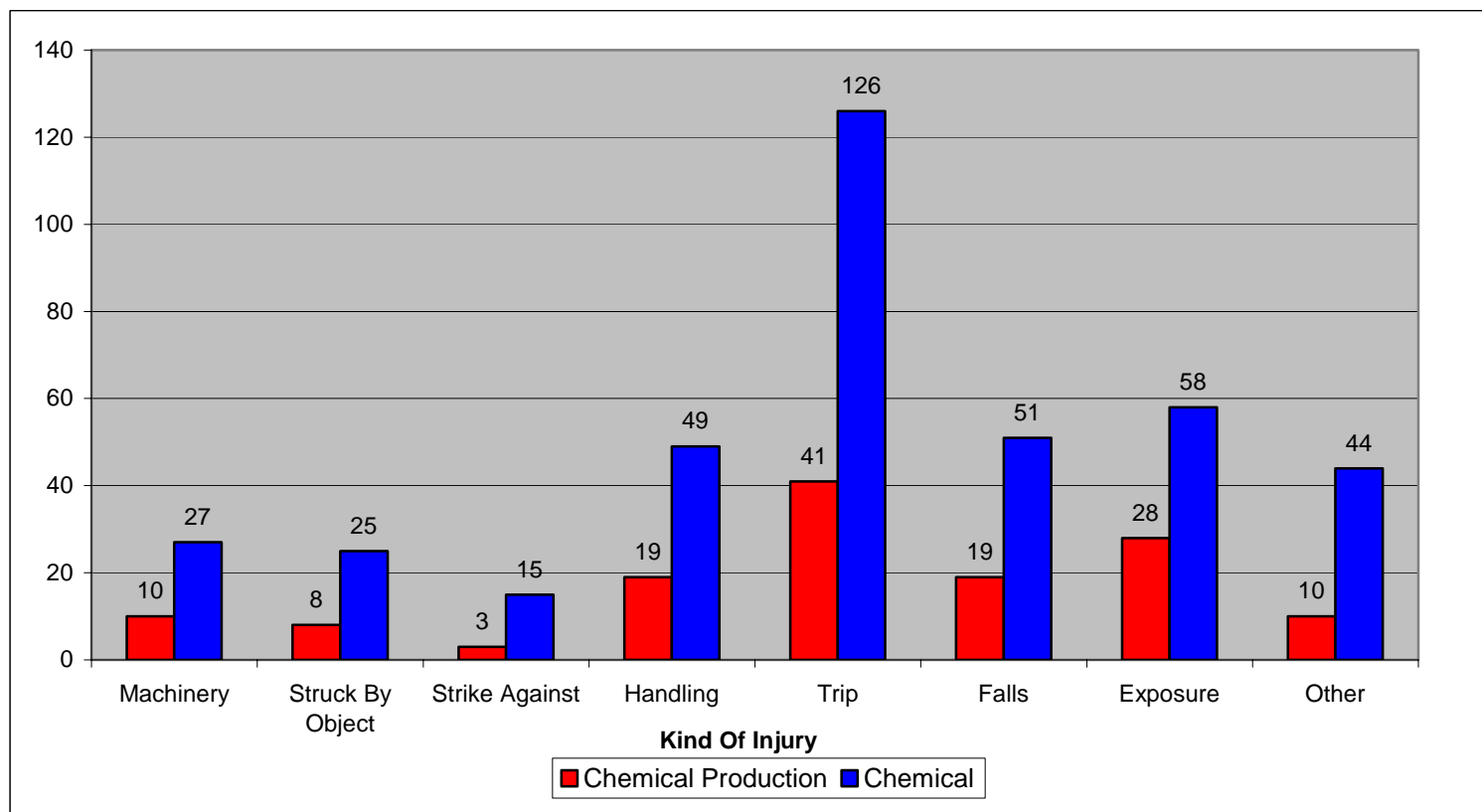
TABLE 11: REQUIREMENTS OF ENFORCEMENT NOTICES ISSUED IN THE CHEMICAL PRODUCTION INDUSTRY BY HSE, 2002/03

Year	Improvement	Deferred Prohibition	Immediate Prohibition	COMAH Prohibition Notice	Total
2002/03	53	4	16	1	74

TABLE 12: PROCEEDINGS INSTITUTED BY HSE WITHIN THE CHEMICAL PRODUCTION INDUSTRY, 2002/03

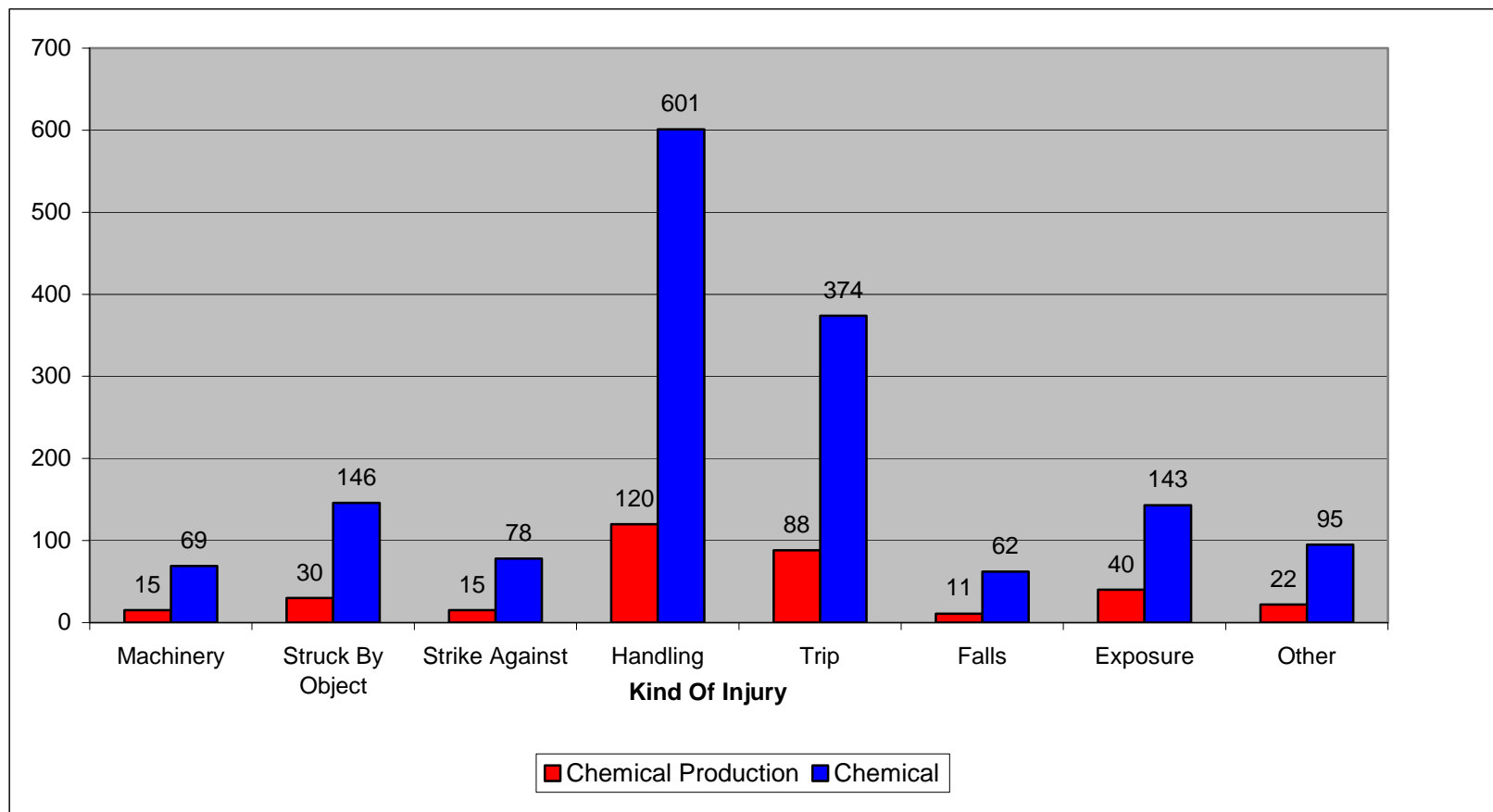
Year	Informations Laid	Convictions	Total Fines (£)	Average Fine per Conviction (£)
2002/03	6	6	50700	8450

FIGURE 1: MAJOR INJURIES TO EMPLOYEES – CHEMICAL PRODUCTION/CHEMICAL INDUSTRIES, 2002/03 (KIND OF INJURY)



'Other' category includes: struck by moving vehicle; collapse/overturn; drowning/asphyxiation; exposures (fire/explosion); contact with electricity; animal injuries; violence; other kinds; kind not known.

FIGURE 2: OVER 3-DAY INJURIES TO EMPLOYEES – CHEMICAL PRODUCTION/CHEMICAL INDUSTRIES, 2002/03 (KIND OF INJURY)



Other' category includes: struck by moving vehicle; collapse/overturn; drowning/asphyxiation; exposures (fire/explosion); contact with electricity; animal injuries; violence; other kinds; kind not known

FIGURE 3: MAJOR INJURIES TO EMPLOYEES - CHEMICAL PRODUCTION/CHEMICAL INDUSTRIES, 2002/03 (PERCENTAGE OF TOTAL INJURIES)

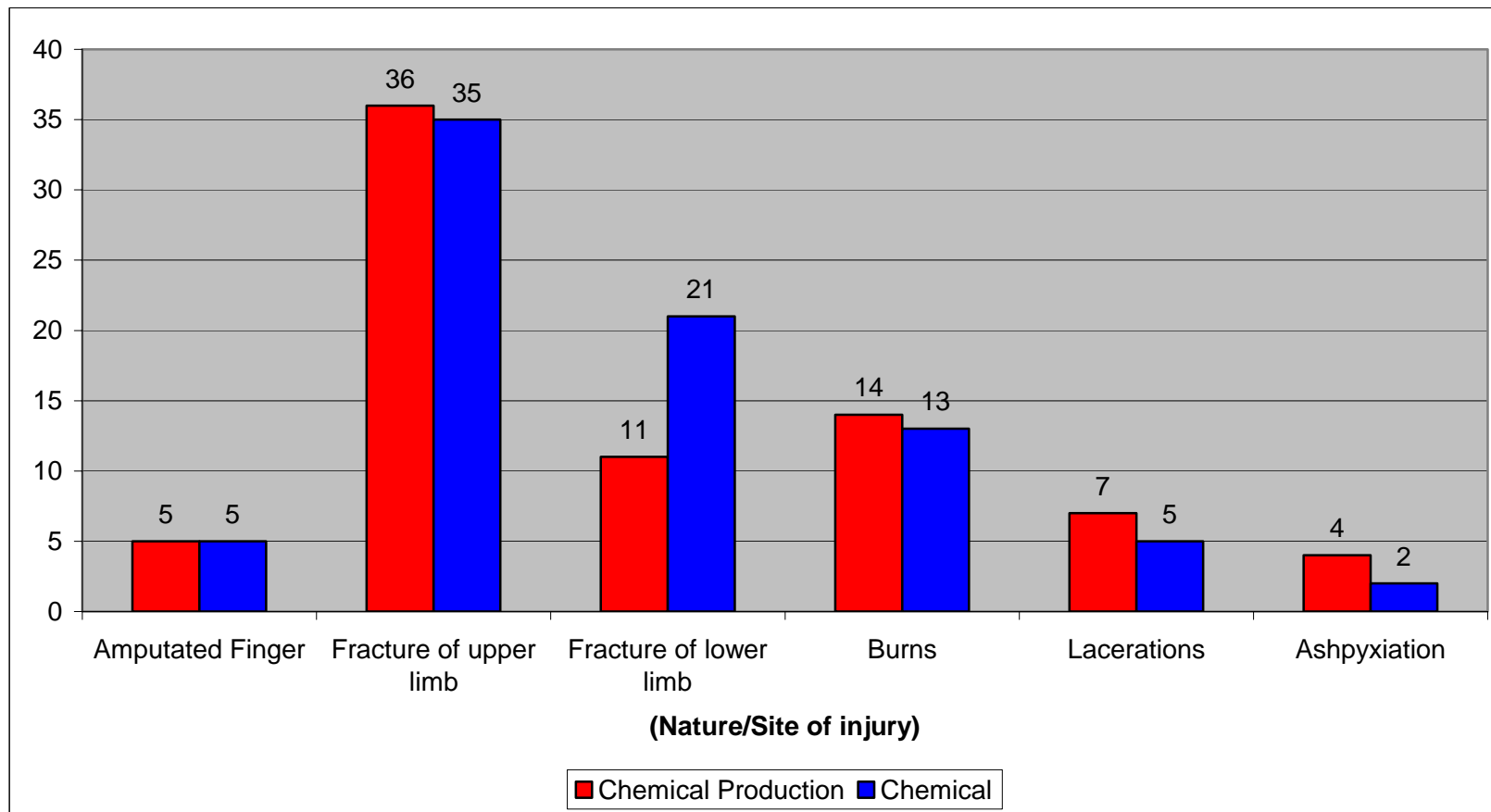
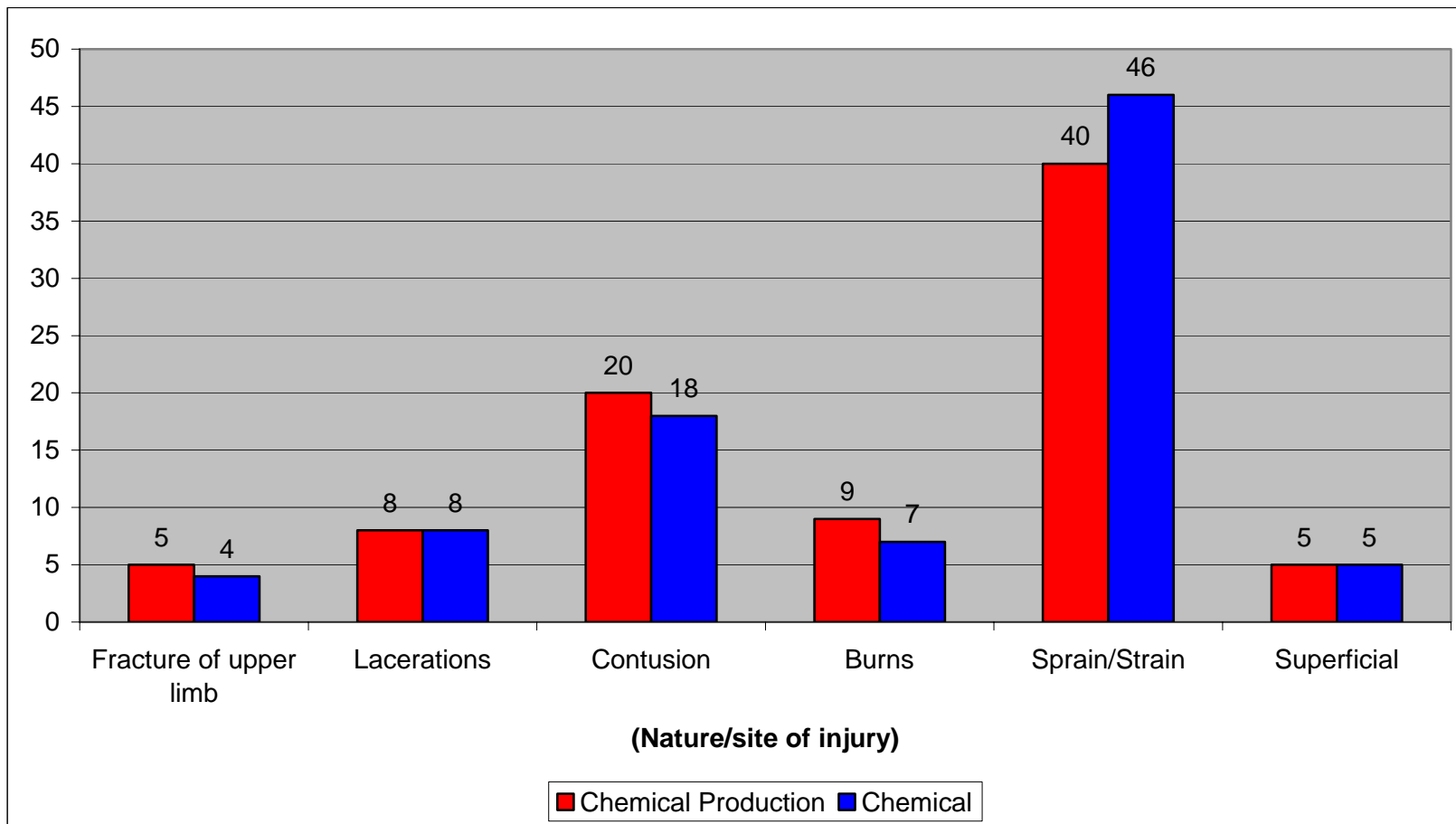


FIGURE 4: OVER 3-DAY INJURIES TO EMPLOYEES - CHEMICAL PRODUCTION/CHEMICAL INDUSTRIES, 2002/03 (PERCENTAGE OF TOTAL INJURIES)



APPENDIX 1

MAJOR AND OVER 3-DAY INJURY DEFINITIONS UNDER RIDDOR – REPORTING OF INJURIES, DISEASES AND DANGEROUS OCCURRENCES REGULATIONS 1995

MAJOR INJURIES

- a) Any fracture, other than to the fingers, thumbs or toes.
- b) Any amputation.
- c) Dislocation of the shoulder, hip, knee or spine.
- d) Loss of sight (whether temporary or permanent).
- e) A chemical or hot metal burn to the eye or any penetrating injury to the eye.
- f) Any injury resulting from an electric shock or electrical burn (including any electrical burn caused by arcing or arcing products) leading to unconsciousness or requiring resuscitation or admittance to hospital for more than 24 hours.
- g) Any other injury:
 - i) leading to hypothermia, heat-induced illness or to unconsciousness;
 - ii) requiring resuscitation; or
 - iii) requiring admittance to hospital for more than 24 hours.
- h) Loss of consciousness caused by asphyxia or by exposure to a harmful substance or biological agent.
- i) Either of the following conditions which result from the absorption of any substance by inhalation, ingestion or through the skin:
 - i) acute illness requiring medical treatment; or
 - ii) loss of consciousness.
- j) Acute illness which requires medical treatment whether there is a reason to believe that this resulted from exposure to a biological agent or its toxins or infected material.

OVER 3-DAY INJURIES

An over 3-day injury is an injury causing incapacity for *normal* work for **more** than 3 days.

APPENDIX 2

EFFECT OF RIDDOR 95 ON NUMBERS OF INJURIES AND DANGEROUS OCCURRENCES REPORTED IN 1996/97

Background to the change in regulations

Injury and dangerous occurrences statistics for 1996/97 and 1997/98p were compiled from reports made to HSE and local authorities under the Reporting of Injuries, Diseases and Dangerous Occurrence Regulations 1995 (RIDDOR 95), which came into force on 1 April 1996. There are a number of differences between RIDDOR 95 and the previous reporting regulations, RIDDOR 85. These changes resulted in substantial differences in the number of injuries and dangerous occurrences reported in 1996/97 compared with trends in previous years.

Keys changes under the new regulations

In 1996/97:

- Fatal, major and over 3-day injuries resulting from acts of physical violence at work became reportable;
- Acts of suicide or trespass which lead to a fatality on railways or other relevant transport systems became reportable;
- The list of reportable major injuries was simplified and expanded slightly. A number of additional injuries became reportable as major injuries, including fractures of the hand and foot and dislocations of the spine, knee, hip and shoulder;
- The definition of a non-fatal injury to a member of the public was changed. Any injuries caused by accidents arising out of or in connection with work activity which cause a person to be taken from the site of the accident to a hospital became reportable;
- The list of dangerous occurrences was expanded and made clearer.