

NATIONAL AUDIT OFFICE

**REPORT BY THE
COMPTROLLER AND
AUDITOR GENERAL**

Enforcing Health and Safety Legislation in the Workplace

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John Bourn
Comptroller and Auditor General

National Audit Office
28 January 1993

The Comptroller and Auditor General is the head of the National Audit Office employing some 800 staff. He, and the NAO, are totally independent of Government. He certifies the accounts of all Government departments and a wide range of other public sector bodies; and he has statutory authority to report to Parliament on the economy, efficiency and effectiveness with which departments and other bodies have used their resources.

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Preface

In 1992-93, 430 people lost their lives from work-related accidents and over half a million were injured. The estimated cost of accidents to industry and the taxpayer is £10 billion a year. Primary responsibility for securing workplace health and safety lies with employers and employees.

The Health and Safety Executive have a wide range of responsibilities. These include the enforcement of health and safety law in over 650,000 workplaces, and the protection of the public from, for example, nuclear or chemical hazards. They employ over 1,500 inspectors, whose main objective is to prevent accidents and ill health by inspecting workplaces, investigating accidents and complaints, advising employers, and where necessary, enforcing the law by means of statutory notices, or by prosecution. The Executive aim to direct their inspectors towards higher risk work activities to make the most effective use of their resources.

The Executive's work has been affected by a number of external developments in recent years. They have had to respond to significant changes in the geographical distribution and nature of industrial activity, and technological developments affecting health and safety. They have also taken over responsibility for railway and offshore safety and there have been material changes in health and safety law. Recent internal developments have included an amalgamation of several of their inspectorates into a new Field Operations Division and the completion of a review of how the new Division might improve the impact of its work.

This National Audit Office report focuses on aspects of the Executive's enforcement activities and examines:

- how the Executive deploy inspectors in response to health and safety risks;
- how inspectors identify risks to the health and safety of workers and the public; and
- how they promote compliance with the law.

In reviewing how inspectors identify risks to health and safety the National Audit Office concentrated on the Executive's work in the construction sector and at sites where there are major hazards.



Summary and conclusions

On how the Health and Safety Executive deploy inspectors in response to health and safety risks.

Paragraphs 2.2 - 2.4; Figure 2

1 Changes in economic activity and employment patterns mean that the Executive must keep the deployment of inspectors under review. Since 1982 they have taken several initiatives to develop a systematic method of allocating inspectors between their 20 Area Offices, based on factors such as accident rates and health risks. Although the results suggested that there were staffing imbalances remedial action has been inhibited, and six areas remain relatively understaffed. The Executive plan to address the imbalances by reallocating inspectors to the understaffed areas.

Paragraphs 2.5 - 2.21

2 In 1992 the Executive began further work to refine the deployment of their inspectors between agriculture, construction, quarries and other industries. Information on risks and workplaces needed to support this work is incomplete. For example, employers fail to report two-thirds of accidents, and there is scope to improve information on the distribution of higher risk premises between Area Offices. The Executive are taking action to improve the completeness and accuracy of this basic information.

3 The staffing imbalance between Area Offices is a matter of concern, since inspectors at understaffed Area Offices may not find it possible to carry out desirable work of a time-consuming nature, for example prosecutions. The Executive need to ensure that initiatives to improve the completeness and accuracy of information required to help them deploy inspectors effectively are carried through and sustained. They also need to set a timetable for reallocating inspectors between Area Offices and industrial sectors and should review progress regularly.

On how inspectors identify risks to the health and safety of workers and the public.

Paragraphs 3.4 - 3.12

4 Construction work is dangerous. Someone working in the industry for 20 years has a 1 in 18 chance of a major injury. There are wide variations in the nature and scale of construction activity from roofwork on an individual house to the Channel Tunnel. Inspectors have adopted a variety of approaches to identify workplace risks ranging from intensive inspection campaigns which concentrate on high-risk activities such as roofwork to planned inspections of larger construction projects timed to focus on particularly dangerous activities.

Paragraphs 3.13 - 3.22

5 Some industrial processes can lead to potentially catastrophic events such as explosions if they are not carefully controlled. Firms whose activities represent a major hazard - for example, oil refining and large-scale chemical production -

must produce a safety report stating how they minimise the risks to employees and the public. Although the Executive are not legally required to assess the reports, inspectors do carry out a detailed examination to ensure that firms have properly assessed their situation, and use the reports to target inspection work.

- 6 Because of difficulties in reallocating resources locally and in obtaining timely input from specialist staff, the Executive have still to complete their assessment of 132 of the 331 reports submitted by firms in 1989. One Area Office visited, Merseyside, was still assessing 25 of the 39 reports received. Since 1989, firms have submitted reports for new sites and have revised their original reports; the Executive have not made a detailed appraisal of the effort that will be needed to deal with the outstanding workload.
- 7 Inspectors in the construction sector have targeted their efforts on activities presenting the greatest hazards to employees and the public. The National Audit Office are concerned, however, at the slow progress in completing the assessment of major hazard safety reports at some Area Offices such as Merseyside, which must be inhibiting the Executive's ability to target inspection work effectively in this sector. They suggest that the Executive should establish current and forecast major hazard workloads for Area Offices, prioritise the work outstanding on a national basis, and ensure that specialist resources are allocated accordingly.

On promoting compliance with the law.

Paragraphs 4.4 - 4.5

- 8 Most inspections result in either oral or written advice. The organisations and firms consulted by the National Audit Office thought that inspectors adopted a thorough approach to their work and that their advice was professionally and technically sound and of a high quality.

Paragraphs 4.7 - 4.15; Tables 4 and 5

- 9 Decisions on whether to prosecute or to issue a statutory enforcement notice in response to a breach of health and safety legislation lie with individual inspectors and their line managers, working within guidelines issued by the Executive. There are variations in enforcement action between Area Offices. For example, the average number of prosecutions per inspector in 1992-93 varied from 1.3 to 5.2, and the average number of enforcement notices varied from 7.2 to 23.9.
- 10 There will be variations between Area Offices depending on the mix of industry, what breaches of the law are found, the willingness of employers to take remedial action, and the complexity of prosecutions. However, the extent of the variations raises the question whether the Executive could do more to ensure that they are enforcing the law consistently across the country.
- 11 The National Audit Office suggest that the Executive's existing measures to secure consistency could be enhanced by some form of peer review of the quality of work on a sample basis. They also suggest that the Executive use the opportunities offered by the introduction of their new computer system in 1994 to extend the scope of their management review to probe the reasons behind reported variations in consistency of approach.

General conclusions

As an organisation the Executive have faced several recent challenges, including additional responsibilities and the enforcement of new regulations. They are taking steps to ensure that inspectors are allocated systematically between Area Offices and industrial sectors. They are also taking action to improve the reliability of information and the way they prioritise inspection work. They have a long agenda for action.

They need to press ahead with these improvements to ensure that inspectors' efforts are targeted on the greatest health and safety risks.

The organisations and firms consulted had a high regard for the way in which inspectors work and for the advice they provide. Inspectors have considerable discretion in deciding which activities to inspect and what action to take to secure improvements. Area Offices also

enjoy considerable autonomy in deciding local enforcement priorities. At the same time, however, the Executive need to show that there is a common approach to enforcement and that the law is enforced consistently. Local autonomy needs to be balanced by a system of accountability which requires Area Directors to explain and justify variations in approach.

Introduction



Inspectors visiting a site in North East England.

1.1 In 1992-93, 430 people, including 121 members of the public, died as a result of work related accidents. Employers reported some 28,000 major injuries and over half a million people suffered less serious injuries. In total an estimated 30 million working days were lost through work-related injuries or ill-health. Reported injury rates vary between industrial sectors (Table 1).

1.2 Work related accidents and ill-health not only cause pain and suffering to individuals, they also cost industry and the taxpayer over £10 billion a year. For example, the Piper Alpha oil rig explosion in 1988 which resulted in 167 deaths cost an estimated £2 billion. And an explosion at an oil refinery at Grangemouth in 1987 cost an estimated £100 million in damage and business interruption.

1.3 Losses from minor accidents can also be substantial. A recent study showed that accidents on one contract cost a construction firm £245,000, equivalent to 8.5 per cent of the tender price; in another case accident costs equated to 37 per cent of profits.

Agriculture, forestry and fishing	7.1
Energy and water supply	4.0
Manufacturing	1.4
Construction	7.9
Services	0.6
All industry	1.2

Source: Health and Safety Executive

Table 1 shows that the fatal injury rate in the construction sector is more than six times the all-industry rate.

Health and safety legislation

1.4 The Health and Safety at Work etc Act 1974 places primary responsibility for securing the health and safety of people at work on employers, manufacturers, suppliers and employees. In addition, employers are responsible for protecting the public from health and safety risks. This Act also established the Health and Safety Commission and Executive.

1.5 The Health and Safety Commission consists of a Chairman and up to nine Members appointed by the Secretary of State for Employment. They are responsible for developing policies to secure the health, safety and welfare of

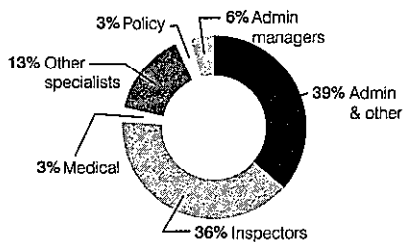
employees and to protect the public against risks arising from work activities. Their duties include the development and revision of health and safety regulations and the provision of information and advice. The Health and Safety Executive (the Executive) support the Commission in carrying out their responsibilities.

Enforcement of legislation

1.6 The Executive's responsibilities include the enforcement of the 1974 Act and other health and safety legislation in over 650,000 workplaces, mainly in the industrial sector. They also cover numerous temporary workplaces, for example, in the construction sector. Enforcement of the legislation in over one million other workplaces, mainly in the services sector, falls to local authorities.

1.7 The Executive employ 4,500 staff, including over 1,500 inspectors and around 600 specialist and scientific staff (Figure 1). Inspectors assist in all the Executive's activities. Their main objective, however, is to prevent accidents and ill-health by encouraging compliance with good standards and enforcing health and safety law. They do this by inspecting workplaces, investigating accidents and complaints, advising employers and employees and where necessary enforcing the law by means of statutory notices, which require specified improvements, or by prosecution. The inspectors are grouped into seven separate inspectorates (Table 2).

Figure 1 HSE staff by function 1.4.93



Source: Health and Safety Executive

Figure 1 shows that over one third of the Executive's staff are inspectors.

Table 2 Distribution of inspectors between inspectorates as at 1 April 1993

Factory inspectorate (1)	707 (2)
Agriculture inspectorate (1)	132
Nuclear inspectorate	175
Offshore inspectorate	131
Mines inspectorate	36
Railway inspectorate	34
Quarries inspectorate (1)	71
	1,279
Specialist inspectors (1) (3)	251
Total	1,530

Notes

1. The factory, agriculture, and quarries inspectorates together with scientific and medical staff and some specialist inspectors, are grouped together in HSE's Field Operations Division. The other inspectorates operate independently.
2. 109 factory inspectors cover the construction industry.
3. Specialist inspectors provide expert advice to field inspectors across a whole range of HSE's responsibilities. There are 95 specialist inspectors within the Field Operations Division.

Table 2 shows that the majority of inspectors work in HSE's Field Operations Division.

Source: Health and Safety Executive

Recent developments

- 1.8 A number of developments affecting the Executive's enforcement work have taken place recently. These include:
- creation of the Field Operations Division in April 1990 to bring the Agriculture, Factory and Quarries Inspectorates and scientific, medical and other specialist staff under one command;
 - completion of a review in 1991 of ways in which the new Division might improve the impact of its work, resulting in the phased implementation of over 30 recommendations; and
 - the assumption of responsibility for railway and offshore safety, previously held by the Transport and Energy Departments.
- 1.9 In addition to these developments, there have been significant changes to health and safety law. For example, six sets of regulations implementing European Community directives came into force in January 1993. These cover areas such as risk assessment and the management of health and safety, and specific matters such as the prevention of back injuries and the safe use of computer screens.

Scope of the National Audit Office examination

- 1.10 The National Audit Office examined:
- how the Executive deploy inspectors in response to health and safety risks (Part 2);
 - how inspectors identify risks to the health and safety of workers and the public (Part 3); and
 - how they promote compliance with the law (Part 4).
- 1.11 The review focused on the activities of the Executive's Field Operations Division. In examining how inspectors identify risks (Part 3), the study team concentrated on inspection work in two contrasting sectors, construction and major hazards, at six of the Executive's 20 Area Offices (Appendix 1) and accompanied inspectors on visits. Since each industrial sector presents different challenges to the Executive, the National Audit Office's findings in these two sectors are not necessarily representative of the Executive's activities as a whole.

1.12 The National Audit Office also sought the views of interested bodies including employers' organisations and trades unions (Appendix 2) and commissioned BMRB International to undertake in-depth interviews with staff in four construction firms (Appendix 3).

Part 2: Deployment of inspectors

- 2.1 The Field Operations Division's 900 inspectors are responsible for enforcing health and safety law in over 600,000 workplaces - including farms, factories and building sites - in England, Scotland and Wales covering some 16 million employees and self-employed people. This part of the report examines the steps the Executive have taken to deploy inspectors between Area Offices and industrial sectors in response to health and safety risks.

Allocation of inspectors

- 2.2 Changes in economic activity and employment patterns mean that the Executive must keep the distribution of inspectors between Area Offices under review. This is a complex matter, requiring judgements on the relative importance of factors such as accident rates, health risks, and the potential for major accidents, and information on the size of the working population and the distribution of workplaces. The Executive have taken four initiatives since 1982 to develop a systematic method of measuring the relative workload of Area Offices. Although the results suggested that there were significant staffing imbalances, corrective action was inhibited by a number of factors.

Figure 2 Distribution of inspectors between Area Offices: estimated understaffing



Source: HSE analysis of results of workload planning exercises 1982 to 1990.

Figure 2 shows that area offices in Southern England and Eastern Scotland are relatively understaffed compared with offices elsewhere in the country.

- 2.3 The Executive's scope to re-deploy inspectors was limited during the 1980s because of a freeze on recruitment which affected long-term staff planning. The competitiveness of the labour market and significant regional differences in house prices also weakened the Executive's ability to move inspectors to understaffed Area Offices. However, the Executive did take a number of steps to address the problem of staffing imbalances, in particular, moving staff on promotion, and making temporary assignments to specific projects.
- 2.4 In 1992 the Executive analysed the results of the earlier workload planning exercises. They identified six Area Offices which were still relatively understaffed (Figure 2). The Executive are now planning to address the staffing imbalances by reallocating inspectors to these Area Offices, but have not so far established a timetable for action. They are confident that they will be able to remedy the imbalances, despite practical difficulties such as the expense involved in transferring staff and the weak housing market.

Current developments

- 2.5 The Executive concluded that further work was needed to guide the distribution of inspectors between agriculture, construction, quarries and other industries. They began work on this in 1992, and aim to complete work on the detailed allocation by industrial sector by March 1994.
- 2.6 In order to deploy inspectors in response to factors such as health and safety risks and the number of workplaces the Executive need accurate information. The National Audit Office therefore examined whether the Executive had reliable information on these factors, and an effective system for prioritising workplaces for inspection.

Information on health and safety risks

- 2.7 Employees and the public are at risk from injuries caused by accidents, from ill health caused by long-term exposure to health risks, and from potential disasters caused by low probability events such as explosions. The Executive use various sources of information about accidents and ill-health to assess risks (Figure 3). In addition, they seek to identify the reasons for accidents and ill health by investigating incidents and through research. For sites which pose major hazards they use risk assessment techniques to assess the probability of dangerous events occurring.

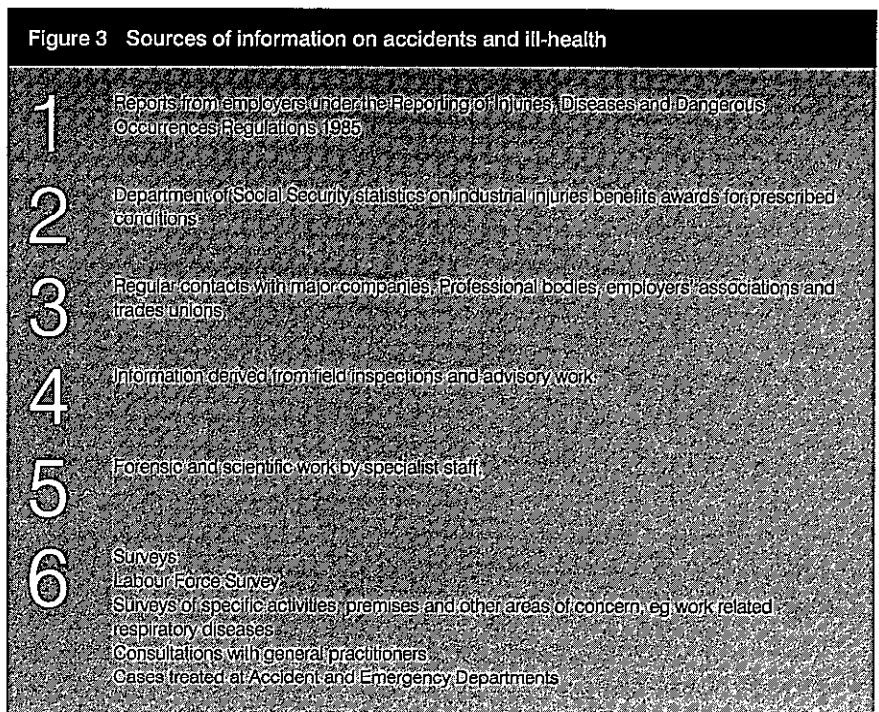


Figure 3 shows sources of information on accidents and ill-health

Source: NAO Fieldwork

- 2.8 Most information on accidents comes from employers. Fatalities and serious injuries to employees and the public are among the types of accident which must be reported. Employers must also report dangerous incidents, such as a crane overturning, and the occurrence of specific diseases, for example asbestosis and occupational asthma.
- 2.9 The Executive recognise under-reporting as a problem, particularly in relation to occupational ill-health. They have undertaken special surveys to estimate its incidence. For example, the Executive commissioned a supplement to the 1990 Labour Force Survey to obtain additional information on the level and nature of accidents and ill health. They plan to continue using the Labour Force Surveys to gather information on ill-health.
- 2.10 The Survey indicated that each year nearly 600,000 employees in Great Britain suffer a reportable workplace accident, of which employers are actually reporting one third. The level of reporting varies between industries - about 80 per cent of accidents are reported in the energy sector, nearly 40 per cent in manufacturing and construction, and less than 20 per cent in agriculture and some service industries. However, the Executive have concluded that the evidence from the Survey confirms the relative degrees of risk between industries indicated by reported accidents, and shows that the reports are representative of the kinds of physical injury which occur in workplaces. The Survey also confirmed the suspected low level of ill-health reporting.
- 2.11 The main reasons for under-reporting appear to be lack of awareness of the reporting requirements, the absence of incentives to report, and uncertainty over which accidents should be reported. In some cases employers may deliberately fail to report an accident in case it leads to an inspection and possible prosecution. Staff in the firms surveyed considered that there was scope to clarify accident categories, which, they said, gave rise to confusion.
- 2.12 The Executive have undertaken a review of the reporting requirements with the aim of simplifying them. One option under consideration is to allow reporting by telephone rather than requiring a written report on a standard form.

Information on workplaces

- 2.13 The Executive maintain a database of over 500,000 "fixed" workplaces which inspectors use to plan visits. They collect information on workplaces from a variety of sources. Many employers, including those operating factories, quarries, and construction sites of more than six weeks' duration are required to register with the Executive. To supplement this, inspectors and administrative staff also obtain information through local surveys and use contacts with industrial estate managers and local development corporations to identify new firms and activities.

- 2.14 However, the turnover of businesses, particularly smaller firms, is high. As a result, at any point in time, the database will include some businesses which no longer exist and exclude new firms which employers have failed to register. Despite these inaccuracies, the Executive are confident that they are aware of virtually all fixed premises employing over 50 people, or which undertake high risk activities, including major hazard sites.
- 2.15 The inaccuracy of the database has two serious consequences for the Executive:
- it inhibits their ability to allocate resources objectively; and
 - inspectors' time is wasted travelling to inspect workplaces which no longer exist.
- 2.16 In 1993 the Executive appointed "workplace contact officers" in each Area Office to check that premises recorded on the database still exist. They also identify unregistered workplaces, for example, by using trade directories and by following up advertisements in newspapers. The Executive are introducing a new computer system in 1994. They are taking action to ensure that the premises database is transferred accurately and are introducing measures to ensure that quality is maintained.

Prioritising inspection work

Table 3 Assessment of risk at individual premises

Inspection Risk Factor	Overall Rating
Present standard of safety	20
health/welfare	20
Potential hazard to employees	5
Potential hazard to the public	20
Confidence in management's ability to maintain standards	15
Total	100

Note: The greater the hazard/risk the higher the rating. The inspection rating has a score of three added for each year since the last inspection and this gives an overall rating for the premises.

Source: HSE

Table 3 shows how inspectors prioritise premises for inspection.

- 2.17 Since 1977, the Executive have used a rating system to prioritise inspection activity, under which individual premises are assigned a numerical rating (Table 3). The rating is increased automatically by three points for each year premises remain uninspected - the "added years" factor - to arrive at an overall rating.
- 2.18 In 1983 the Executive decided that inspectors should aim to visit each year all workplaces with an overall rating in excess of 41. However, they have never been able to achieve this target, and the proportion of premises with a rating of 41 or more has increased from 12 per cent in 1983 to 39 per cent in 1992. Much of the increase arises from the application of the "added years" factor to the rating of low-risk workplaces such as schools and dental surgeries which have not been inspected for some years.
- 2.19 In response, the Executive revised their policy in the late 1980s so that premises above the 41 threshold became the field for inspection from which local managers selected premises for a visit. Inspectors examine the individual assessment (Table 3) for each of the premises in the field to prioritise sites for inspection.
- 2.20 The Executive recognise that they could identify high risk premises more clearly by giving additional emphasis to risk in the determination of the rating score. They began work to improve the rating system following an efficiency scrutiny in 1989. The scrutiny's main recommendation was that a factor based on the

accident rate for the relevant industrial sector should be added to the rating. The Executive decided to delay implementation until it could be included along with other changes in the new computer system, due to become operational in 1994.

- 2.21 At the same time, they propose to change the rating system to give more weight to risks and confidence in management, and to apply the "added years" factor only to premises regarded as high risk. The Executive intend these changes to provide better information on the geographical and sectoral distribution of high risk premises, and to provide a more reliable basis for allocating inspector resources.

Part 3: Identification of health and safety risks

3.1 The Executive identify health and safety risks in a variety of ways. At the workplace level inspectors carry out planned programmes of preventive inspections, and investigate accidents and complaints. At a more general level the Executive undertake research, surveys of particular sectors or areas of concern, and assess intelligence gathered from links with industry. This part of the report examines how inspectors target their efforts on hazardous activities in workplaces which may place employees and the public at risk.

Preventive inspection

3.2 The Executive attach great importance to the programme of preventive inspections, under which firms are visited in a planned way in response to the likely risk. The approach allows inspectors to offer advice in good time and provides intelligence in a systematic way. In 1992-93, the factory inspectorate spent over 40 per cent of their available time on preventive work (Figure 4), completing over 121,000 inspections.

Figure 4 Factory Inspectorate - use of resources 1992-93

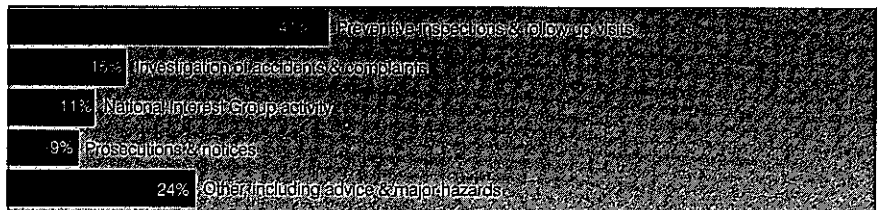


Figure 4 shows that the Factory Inspectorate devoted over 40 per cent of their time in 1992-93 to preventive inspection work.

Source: NAO analysis of HSE statistics

3.3 Inspectors cover a wide range of industrial activities, each of which presents different types of risk to health and safety. The National Audit Office focused on preventive inspection activity in two contrasting sectors - construction and major hazards sites.

Construction

3.4 The construction industry has a high level of accidents. On average, someone working in the industry for 20 years has a 1 in 18 chance of a major injury, and a 1 in 600 chance of a fatal injury. The risk of a fatal injury to a construction worker is six times the all-industry average. Most fatal injuries are caused by falls from a height (Figure 5) and nearly half the deaths involve inexperienced workers in their first week on site (Case study A).

Figure 5 Causes of fatal injuries in the construction industry 1986 - 1990

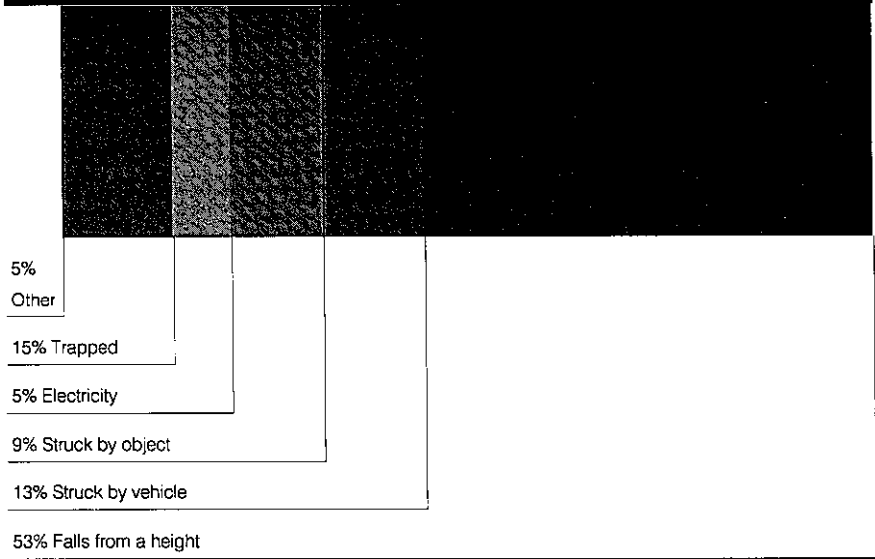
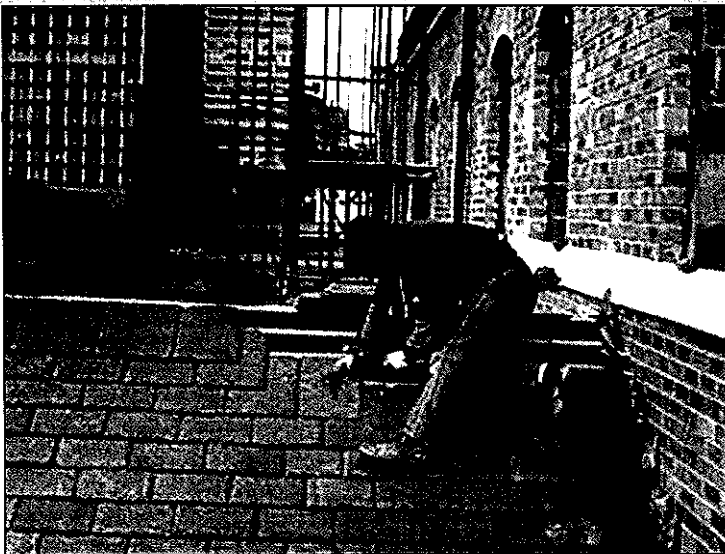


Figure 5 shows that most fatal injuries in the construction sector are caused by falls from a height

Source: HSE Analysis of Fatalities

Case study A



A former insurance salesman with no previous experience of roofing work fell through the fragile lining of a roof to his death on his first day on a construction site in South Wales. He was employed by a sub-contractor working to a main contractor refurbishing a warehouse and had received no training in

health and safety matters prior to going on site.

The Executive successfully prosecuted the main contractor who was in control of the site and held to be primarily liable for the failure to provide the necessary precautions. The company was fined £20,000.

3.5 The construction industry has particular characteristics which inspectors take into account in carrying out their enforcement work:

- sites are temporary rather than fixed;
- risks change as work progresses; and
- there are wide variations in the nature and scale of activities.

3.6 The National Audit Office examined how individual inspectors prioritise their work in the construction sector to target activities most likely to result in accidents. They obtained evidence on this aspect by comparing the approach to inspection work in the Area Offices visited, and by accompanying inspectors on visits. They also obtained views on the Executive's work from those affected by their activities.

3.7 Contractors are required to report projects of at least six weeks' duration to the Executive. This requirement means that small-scale construction work - including dangerous activities such as roofwork or demolition - is not notified. This limits inspectors' ability to target high risk activities.

3.8 As inspectors do not have advance notice of small-scale construction activity they undertake spot checks of construction work identified while travelling between larger sites. They also use accident reports and complaints to identify smaller sites for preventive inspection (Case study B). In addition, the Executive

Case study B

The Executive received a complaint from a member of the public about the noise from a compressor being used by a contractor excavating a new sewer in North Shields. The inspector visited the site and concluded that the compressor did not breach noise regulations. Whilst at the site, the inspector carried out a preventive inspection which identified significant health and safety risks. There were no barriers round the site to prevent public access (during the inspection several members of the public walked through the site), and no protection around the edges of a deep excavation. The inspector advised the contractor to make the pedestrian route past the site clearer to prevent public access, and to erect edge protection around the excavations. He revisited the site on the following day and confirmed that remedial action had been taken.

have undertaken intensive inspection programmes at national and local level which cover smaller-scale construction work. These typically focus on a high risk activity or sites throughout a geographical area (Appendix 4).

3.9 Inspectors can adopt a different approach to projects lasting more than six weeks since most of these are notified to the Executive. They select sites for inspection and decide the timing of visits on the basis of the risks involved. They take the following factors into account when determining priorities:

- the size of the workforce and the risk to employees and the public by the site location;
- the type of work involved - for example, demolition, excavation and roofwork present higher risks than bricklaying or plastering; and
- the health and safety record of the project contractors.

3.10 Major construction projects such as the Channel Tunnel (Appendix 5) impose challenging technical demands on both contractors and inspectors. They typically involve high risk activities and several contractors. In such cases, inspectors generally meet the main contractor at the planning stage to review the project, to identify high risk activities, and to assess the contractors' proposals to minimise risks. They then undertake preventive inspection visits, involving specialist inspectors as necessary, timed to focus on particularly dangerous stages in the project.

3.11 The 1991 Field Operations Division review recommended that inspectors should consider visiting larger companies operating at a number of locations on a systematic basis, rather than on an uncoordinated basis across the country. Under this approach a firm is approached centrally and results from a sample of construction sites are used to influence health and safety practices within the organisation as a whole (Case Study C). Two companies in the construction sector were selected for coordinated visits in 1991-92 and six in 1992-93. The Executive are currently evaluating the approach and its resource implications.

3.12 The organisations and firms surveyed by the National Audit Office commented that inspectors appeared to concentrate their efforts on larger companies and projects while smaller firms and projects did not seem to attract the same level of attention. The Executive told the National Audit Office that a large site was almost certain to be visited because of the duration of the work and the number of workers at risk. And since most major contractors typically worked with several smaller contractors on a large project, the latter group would be seen at the same time. Inspectors also devoted considerable time to small firms by following up accidents and complaints, undertaking intensive targeted inspection programmes, and offering advice.

Case study C

Inspectors at the South East Area Office selected an expanding construction firm based in East Sussex for examination using a central approach. The company has around 30 sites in London and the south east, employs about 40 site staff, and relies heavily on contractors.

Over a period of two weeks in January 1993, inspectors visited 17 of the firm's sites, concentrating on

key areas including the training of site agents and monitoring of safety performance. The overall assessment was that, with the exception of lapses at two sites, the firm had generally acceptable standards. The Executive prepared a report summarising their findings and recommendations for improvement which was discussed with the firm's directors.

Major hazards sites

- 3.13 If they are not carefully controlled, some industrial processes can lead to potentially catastrophic events such as major fires or explosions. Incidents at major hazards sites - such as oil refineries and chemical plants - can affect not only employees but the general public in the vicinity (Case Study D overleaf).
- 3.14 The Control of Major Hazards Regulations 1984 require firms which use, store or produce large quantities of hazardous substances to submit a safety report to the local Area Office. A report should identify the major hazards arising from the installation, the consequences of possible incidents, the management and other systems used to control the hazards, and set out an emergency plan for dealing with any major accidents that do occur.
- 3.15 While the Executive are not legally required to assess the safety reports, they do carry out a detailed examination to ensure that firms have properly assessed their situation. The examination also helps the Executive to prioritise and plan inspection visits. On receiving a report, inspectors firstly identify whether it contains the information required by the regulations. Then, with the assistance of other specialist staff, they assess whether all relevant hazards have been included, and identify any aspects of the plant and process which give cause for concern.
- 3.16 Inspectors use the reports to identify key areas for examination during preventive inspection visits and for reference in the event of an incident at the site. Although they have a good knowledge of the hazards from earlier visits, in some cases reports have highlighted previously unidentified control

Case study D



Photograph reproduced with the kind permission of West Yorkshire Police Aerial Support Unit.

An outbreak of fire occurred at a chemical firm at Low Moor, Bradford in July 1992. It resulted from the storage together of two incompatible chemicals. Steam pipes close to the chemicals had not been disconnected properly. They heated one of the chemicals causing it to burst out

of the boxes it was stored in, onto the other chemical underneath. The intense fire was one of the worst the West Yorkshire Fire Brigade had ever encountered and came close to becoming a "mini-Flixborough". Thirty members of the public were treated for smoke inhalation.

The company admitted to failing to protect its workers by storing chemicals safely and failing to protect the public by making proper arrangements to eliminate or mitigate the effects of fire or explosion. The company was fined £100,000 and ordered to pay costs of £60,000.

deficiencies. In view of the potential danger to employees and the public from major hazards sites, the National Audit Office examined the Executive's progress in reviewing the reports.

- 3.17 Firms with major hazards sites were each required to produce a report by July 1989. In total 331 reports were submitted. Some reports for complex sites ran to over 20 volumes. By June 1993 the Executive had completed their assessment of 199 of these reports; work on the remaining 132 was still in progress.
- 3.18 The Area Offices visited by the National Audit Office had different workloads, reflecting the distribution of major hazards sites across the country and the frequency of serious incidents requiring investigation. Three (Merseyside, North East and Wales) had received 119 reports between them. Inspectors in the North East and Wales Area Offices had completed their assessment of most of the reports by giving them priority and allocating resources accordingly. Those in the Merseyside Area Office were still assessing 25 of the 39 received because they had experienced difficulty in releasing resources locally and in obtaining timely input from specialist staff outside their direct control. They are now taking action to prioritise the outstanding reports and expect to complete the work within two years.
- 3.19 Since 1989 firms have provided revised reports updating their original submissions or covering new installations. The Executive do not maintain central records on progress in reviewing these reports and rely on returns from regions and divisions showing progress. The National Audit Office were unable to reconcile these returns with data held locally. The Executive have not made a

detailed appraisal of the effort needed to deal with the outstanding workload. They expect to receive over 300 more reports in the next two years. The examination of safety reports will therefore continue to require a significant resource input.

- 3.20 Delays in completing the examination of safety reports may send the wrong signal to firms. It could result in firms giving the reports a lower priority, with potential long-term repercussions on health and safety. Both the Confederation of British Industry and British Gas told the National Audit Office that the Executive's examination of the reports had been professional and searching, but the process had sometimes been slow.
- 3.21 British Gas indicated that the time HSE took to provide a considered response varied from a few months to just under three years, with an estimated average response time of around eighteen months. While the Confederation of British Industry accepted that the Executive had no legal obligation to respond to a report they commented that the lack of response could be wrongly interpreted to mean that they were content with the report. They considered that an early response would provide useful feedback for subsequent reports, saving time and effort in the future.
- 3.22 The Executive recognised that the rate of progress in examining the safety reports could be improved. As they had led the way nationally and internationally in developing assessment techniques they had experienced some difficulties in retaining specialist staff. And they had also had to reassign many key staff from major hazards work to offshore installations work when they assumed responsibility for offshore safety in 1991. The staffing position had now eased because there was a greater general availability of experienced staff in the labour market. The Executive had also taken action to address the matter by improving the salaries of some specialist staff and by making use of bought-in resources.

Reactive inspection work

- 3.23 In addition to carrying out planned programmes of preventive visits, inspectors undertake reactive investigations in response to accidents reported by employers (Case Study A) and complaints (Case Study E overleaf). In 1992-93 they investigated over 24,000 accidents and complaints.
- 3.24 The selection of accidents for investigation is in most cases left to the professional judgement of senior inspectors in Area Offices, working within guidance provided by the Field Operations Division. The exceptions are where the Division identifies particular areas of concern and requires all accidents of a certain type to be investigated. For example, all accidents involving all-terrain vehicles will be investigated during 1993-94. The National Audit Office examined the consistency of approach to reactive inspection work by comparing Area Office statistics and the approach to construction accidents at the six Area Offices visited.

Case study E

A member of the public rang the Executive to complain that contractors working in a Liverpool street were creating a cloud of dust when cutting concrete paving slabs. The inspector located the site and established that they had not been involved in any paving activity. He

concluded that the complaint was not justified. After a brief check on other health and safety risks he provided the foreman with advice on wearing safety helmets.

- 3.25 Most Area Offices investigated between five and seven per cent of injuries (Figure 6). Most fatal injuries were investigated. The proportion of major injuries investigated, for example, fractures, varied between Area Offices from 8.5 per cent to 20.8 per cent. And in the case of non-major injuries leading to three or more days off work the proportion of accidents investigated ranged from 2.4 per cent to 7.6 per cent. While there were also variations in the proportion of complaints investigated, the Transport and General Workers Union told the National Audit Office that in their experience inspectors followed up diligently any complaints about material risks.
- 3.26 Within the construction sector there were also variations. At the six Area Offices visited the average proportion of injuries investigated was 6.9 per cent, ranging from 3.6 per cent at Merseyside to 11 per cent in London South. The variation was due to different local priorities. Merseyside Area Office told the National Audit Office that they had deliberately selected only the most complex accidents for investigation, whereas London South used accident reports as a means of identifying sites and firms of whose existence they were unaware to enable them to combine an inspection with an investigation of the accident.
- 3.27 The Executive's policy of allowing local inspectors some discretion in deciding which accidents to investigate will necessarily result in some variation in the proportions of accidents investigated, as will the relative importance accorded to accident investigations in the context of local priorities and the number of complex incidents requiring investigation. But the variation between some Area Offices could be seen to be inequitable by employers, and may result in significant risks to employees and the public not being investigated.

Figure 6 Proportion of all injuries investigated by Area Offices 1992-93

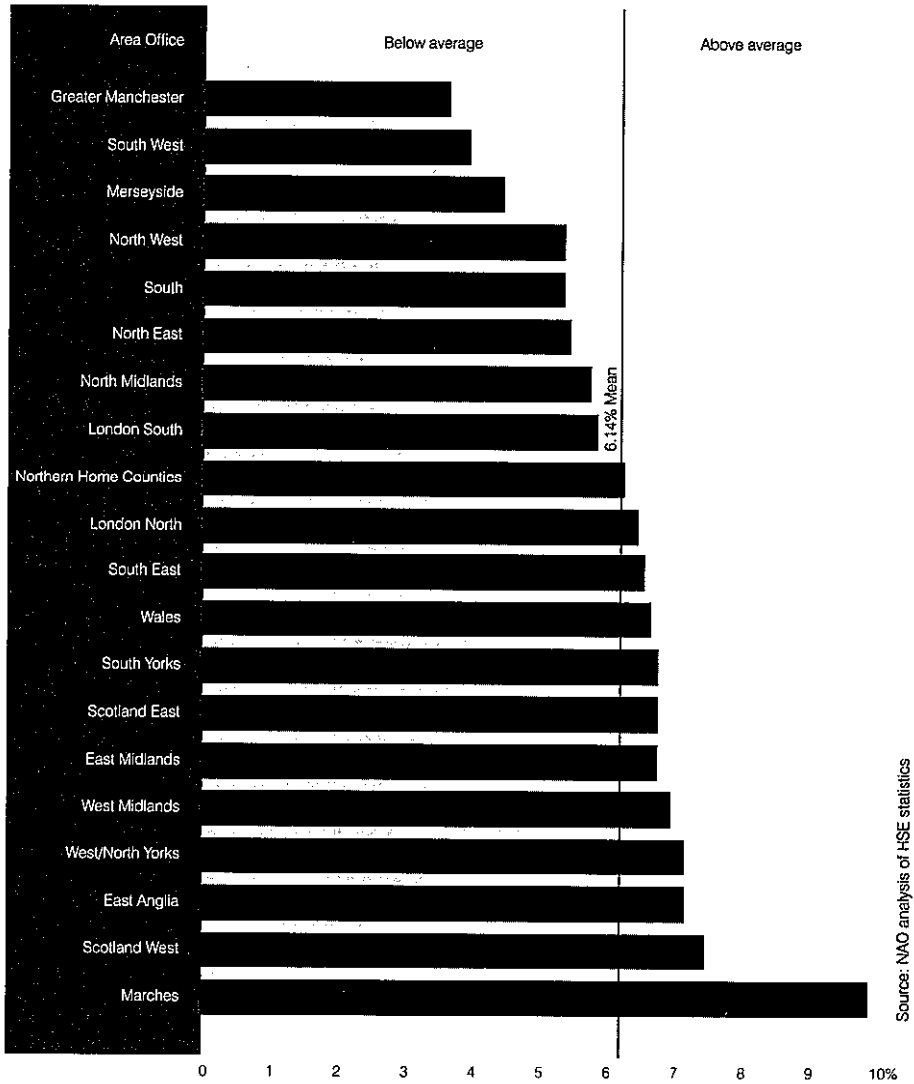


Figure 6 shows that the proportion of injuries investigated by each Area Office in 1992-3 ranged from 3.65% in Greater Manchester to 9.84% in the Marches.

Note: Marches Area Office covers Hereford and Worcester, Shropshire and Staffordshire.

Source: NAO analysis of HSE statistics

Part 4: Promoting compliance with the law

- 4.1 This part of the report examines how inspectors promote compliance with the law through providing advice during visits and by taking formal enforcement action. It also examines measures taken to ensure that inspectors are consistent in their approach to enforcement, and the impact of sanctions on employers and employees. The National Audit Office did not examine in detail other methods used by the Executive to inform employers and employees of their legal responsibilities, such as publicity campaigns and contacts with trade associations and other professional bodies.

Promoting compliance

- 4.2 The Executive have a responsibility to enforce health and safety law consistently. Inspectors have discretion in deciding what action to take to protect employees or the public from risks. The choice of action ranges from oral or written advice to statutory notices requiring either immediate compliance or compliance within a specified time. In serious cases they may prosecute employers and employees for breaches of the law.
- 4.3 The National Audit Office sought external views on the advice provided by inspectors. They also examined the approach to enforcement within the Field Operations Division and in the construction sector by comparing Area Office enforcement statistics, by reviewing how the Executive promote consistency, and by inviting external views.

Advice

- 4.4 Most inspections result in the provision of oral or written advice (Case Study F opposite). The organisations and firms consulted by the National Audit Office thought that inspectors adopted a thorough approach to their work and that their advice was professionally and technically sound.
- 4.5 Staff in the construction firms surveyed had established good relationships with their local Area Office and would contact their local inspector to clarify health and safety matters. On wider issues, for example the interpretation of new legislation, they would contact senior inspectors, or the specialist construction inspectors in the Construction National Interest Group based in London. Employers in the major hazards sector also thought that the standard of advice provided by inspectors was of a high quality.

Case study F



In March 1993, demolition contractors were using explosives to demolish two cooling towers in Billingham, Teesside. However, one of the towers did not collapse fully, but remained tilting at a dangerous angle. The contractor discussed the safest method of completing the demolition with the local construction inspector.

The inspector advised against the use of explosives because workers would be at risk installing them in the unstable structure. He also cautioned against the use of a ball and chain due to the danger this would pose to the crane driver. The inspector's recommended solution, which was accepted by the contractor, was to

attach a heavy duty steel cable to a winch and pull it through the masonry. The effect was similar to a wire cutting through cheese, and the tower was successfully and safely demolished.

- 4.6 There were some concerns about inconsistencies between inspectors in the construction sector where some were said to take a firmer line than others on health and safety requirements. Staff in one of the firms surveyed suggested that the Construction National Interest Group should exercise greater influence over local inspectors. The Executive are currently considering whether the role of the national interest groups should be enhanced in this way.

Sanctions

- 4.7 Formal sanctions on employers and employees include statutory notices requiring specific action to improve health and safety (Case Study G) and prosecution (Case Study H). The Executive provide broad guidelines on enforcement criteria but rely on the judgement of individual inspectors and their line managers to decide what action is appropriate in a particular case. In view of this, they do not set targets for the use of notices or prosecution.
- 4.8 The construction firms surveyed for the National Audit Office had all been prosecuted at some time or another for breaching health and safety legislation. In most cases staff considered the prosecution to be fair. The Executive also win virtually all appeals against enforcement notices, which further supports the view that enforcement action is usually well-founded.

Case study G

In February 1993, a construction inspector undertaking a routine inspection of a house building project in the Tyne and Wear area was concerned about the poor safeguards in place during roofworking. Employees working on the roof were not adequately protected from the risk of falling, and there was a danger to workers below from falling tools and materials.

The inspector served an immediate prohibition notice on the builder. This prevented further work on the roof until proper edge protection to control the risk of falls was put in place. This was the second prohibition notice served on the site in connection with roofwork.

Case study H

An anonymous complaint alleged unsafe working practices at a demolition site in Birkenhead. Two inspectors visited the site and found a crane being used without its automatic safe load indicator working (this device should operate a warning bell when the crane is overloaded). A radius load indicator providing visual guidance to the driver on the position of the jib was

also absent. A prohibition notice was served preventing further use of the crane. Expert evidence was obtained from the regional Field Consultant Group to support a prosecution. Both the company operating the crane and the crane driver were prosecuted, the latter for knowingly operating the defective crane. The company was fined £2,000 and the driver was given a 12 months conditional discharge.

4.9 In 1992-93 inspectors issued over 11,000 enforcement notices and began court proceedings on 2,000 breaches of legislation. While the overall ratio of notices to prosecutions was about 5:1, Area Office ratios varied from 3:1 to over 10:1. The incidence of prosecutions and notices issued per inspector in 1992-93 also varied between Area Offices (Tables 4 and 5). And there were similar variations in enforcement action taken within the construction sector at the six Area Offices visited by the National Audit Office.

Table 4 Prosecutions and notices issued per inspector 1992-3

London/North	1.25	16.88
South West	1.30	7.28
Scotland/West	1.50	11.67
South	1.62	9.27
North/West	2.00	15.17
South East	2.16	18.89
Wales	2.16	17.74
South Yorks	2.24	26.88
North Midlands	2.34	16.84
Northern Home Counties	2.45	11.55
Merseyside	2.49	20.18
East Anglia	2.62	17.15
Greater Manchester	2.93	20.68
Scotland/East	3.41	10.15
North East	3.61	20.17
London South	3.73	11.70
East Midlands	4.09	18.90
West Midlands	4.22	18.05
West/North Yorks	4.62	16.10
Marches	5.17	19.98
Average	2.82	15.11

Table 4 shows that in 1992-3 each inspector in the Marches started four times as many prosecutions as an inspector in the London North and South West Area Offices.

Source: NAO analysis of HSE statistics

Table 5 Incidence of prosecutions and notices in the construction sector 1992-93

Area/Office	Total Inspections/Investigations	Prosecutions	Notices	Total/means	Prosecutions/mean
South East	2,297	10	86	1 in 230	1 in 25
London South	2,877	89	198	1 in 35	1 in 15
Wales	2,188	10	109	1 in 219	1 in 20
Merseyside	2,249	18	163	1 in 125	1 in 15
North East	1,966	62	112	1 in 32	1 in 18
Scotland/West	1,666	9	123	1 in 185	1 in 14
Total/means	13,243	198	783	1 in 67	1 in 17

Table 5 shows that in the construction sector in 1992-93, 1 in 32 inspections and investigations in the North East Area Office led to a prosecution, compared with 1 in 230 in South East England.

Source: NAO analysis of HSE statistics

4.10 The Executive considered that the variation was due to differences between areas in:

- the mix of industry;
- occupational health and safety standards of employers;
- numbers of trainee inspectors;
- the effects of local health and safety campaigns; and
- the incidence of breaches in legislation.

In addition, the prosecution rate was affected by the number of cases which proved to be lengthy, for example, because they were submitted to the higher courts, and the number which passed the rigorous "public interest" tests which govern prosecutability.

4.11 The Executive also acknowledged that some of the difference could be attributed to local priorities and the attitude of individual inspectors. The 1991 review of the Field Operations Division noted that some inspectors consistently prosecuted and issued more notices than others and recommended that Area Directors should attempt to achieve greater consistency.

4.12 The National Audit Office examined what steps the Executive take to ensure that inspectors adopt a common approach to enforcement.

4.13 All inspectors receive comprehensive training and can call on specialist support. In addition, there are some 30 national interest groups which comprise a small number of inspectors responsible for inspection standards in specific industries such as construction. The groups play an important role in promoting consistency by issuing internal guidance on problems encountered during inspection. However, they have no authority over inspectors, and cannot ensure that priorities set for the industry are followed.

4.14 As inspectors normally undertake visits alone management review is an important element in securing consistency. Senior inspectors check the work of junior staff by reviewing casepapers and accompanying them on field visits. Area Directors also review the work of individual inspectors in the Area Office, although their approach varied and the review was rarely documented.

4.15 Area Office performance is subject to regular review by regional directors; regions are in turn reviewed by headquarters. The Executive maintain comprehensive records of the numbers of inspections, accidents, complaints, notices issued and prosecutions. Regional reviews concentrate on each area's progress against plans and outturn compared with other areas in the region. However, headquarters do not routinely collate information from Area Offices to

produce data for the organisation as a whole to enable them to identify variances for investigation. The introduction of the new computer system from 1994 will improve the availability of information and would allow the Executive to extend the scope of their management review to identify Area Offices whose performance departed from the norm and establish the reasons for significant variances.

Impact of enforcement work

- 4.16 The National Audit Office examined the impact of enforcement work and initiatives being taken to enhance it.
- 4.17 The Health and Safety at Work etc Act 1974 introduced the present range of sanctions available to inspectors. The Executive have likened their inspection programmes to the highly visible presence of the police patrol car on the motorway. They consider that fear of detection of law breaking is, for most, a deterrent and spur to better performance. Much of their impact in bringing about change by persuasion is underpinned by the knowledge that inspectors have enforcement powers in reserve.
- 4.18 The National Audit Office accompanied inspectors on visits to a variety of sites. Site managers, foremen, and workers all appeared willing to take action without argument on recommendations to improve health and safety, their positive attitude reflecting their recognition of the inspector's knowledge and authority.
- 4.19 In the majority of cases, employers act promptly on recommendations made and respond to sanctions. Staff in one of the firms surveyed for the National Audit Office commented on the effectiveness of enforcement notices. There are, however, exceptional cases where employers fail to take action in response to sanctions (Case Study I).
- 4.20 The Executive's 1991 review of the Field Operations Division recommended a number of ways in which inspectors could improve the impact of enforcement. These included more use of prosecution after routine inspections, greater use of publicity, introduction of prosecutions for general weaknesses in a firm's management of health and safety, and more prosecutions of senior managers and directors.
- 4.21 The Area Offices visited by the National Audit Office were at various stages in implementing these recommendations. London South had taken action on several fronts and had done more than most to take enforcement action against directors and senior managers. One of the safety managers included in the National Audit Office survey whose firm had been prosecuted in this way commented that it had definitely made the directors more aware of health and safety; as a result his training budget had been increased substantially. Some Areas, for example Scotland West, had, however, encountered some difficulty in taking cases against individuals.

Case study 1

In January 1999 an inspector carried out a routine spot check on an excavation site in Cheshire where two self-employed contractors were constructing an underground slurry store. They were working next to almost vertical unsupported earth bank walls with aggregate stored next to the excavation.

The inspector expressed his concern for the men's safety and advised that they stop work until the sides of the excavation could be battered back to a safe angle. The contractors refused as a load of ready-mix concrete had already been ordered for delivery that day. The inspector served a Prohibition Notice on both

contractors, requiring them to stop work until the sides of the excavation had been made safe.

The men failed to stop working. One of the contractors verbally abused and physically threatened the inspector. The inspector left the site and returned later with two colleagues. Due to the contractor's violent behaviour and fear of physical assault the visit was cut short.

Both contractors pleaded guilty to contravening the Prohibition Notice and were fined £1,000 with £400 costs each. One of the contractors was also fined £100 for obstructing an inspector in the course of his duties.

4.22 In recent years the Executive have been concerned that the level of penalties for non-compliance available to the courts have weakened the impact of enforcement action. The Offshore Safety Act 1992 made more stringent penalties available to the courts. Breaches of fundamental health and safety responsibilities and failure to comply with an enforcement notice can now attract a fine of up to £20,000 instead of £2,000. The average fine rose from £1,180 in 1991-92 to £1,380 in 1992-93.

4.23 One side effect of the increase in maximum fines available to the courts, however, may be to increase the propensity of firms to contest cases in the higher courts, where the cost to the Executive in retaining experienced prosecution counsel can be significant. While there is no intention to reduce the number of prosecutions, the Executive now require senior management approval for cases likely to incur significant costs.

HSE: Regions and Area Offices

Region	AreaOffice	Location
Wales and South West	South West *Wales	Bristol Cardiff
Home Counties	South East Anglia Northern Home Counties	Basingstoke Chelmsford Luton
London and South East	London North *London South *South East	Barking London East Grinstead
Midlands	East Midlands West Midlands North Midlands Marches	Northampton Birmingham Nottingham Newcastle under Lyme
Yorkshire and North East	South Yorkshire and Humberside West and North Yorkshire *North East	Sheffield Leeds Newcastle
North West	Greater Manchester *Merseyside North West	Manchester Bootle Preston
Scotland	Scotland East *Scotland West	Edinburgh Glasgow

* Area Offices visited by the National Audit Office

Appendix 2

Organisations and firms providing information to the National Audit Office

Association of British Pharmaceutical Industries

Building Employers Confederation

The British Fire Services Association

Chemical Industries Association

The Confederation of British Industry

The National Federation of Roofing Contractors

United Kingdom Petroleum Industry Association Limited

Transport and General Workers Union

British Gas PLC

Esso Petroleum Company Limited

Survey of construction firms

The National Audit Office commissioned BMRB International to undertake a survey to obtain views on the work of the Executive in the construction sector.

Sample selection

Four firms, selected judgementally, ranging in size from 60 to 6,000 employees. Three employees from each firm were interviewed:

- 1 Director/senior manager responsible for health and safety in the firm
- 2 Site manager
- 3 Local safety officer/foreman

Survey approach

Mini-group discussions, followed by individual interviews.

Issues covered

Awareness of legislation, accident reporting requirements, need to register construction sites.

Contact with the Executive at local and national level.

Experience of inspection visits, knowledge and consistency of inspectors, communication of results.

Quality of advice and fairness of any enforcement action.

Appendix 4

The national roofwork campaign

Falls are the single main cause of construction site deaths. The roofing trade has the highest number of fatalities of any trade at risk from falls. The Executive ran a national publicity and inspection campaign in 1992 to highlight the dangers and reduce accidents.

They published a series of advertisements in popular newspapers about a free information pack and organised local lectures and seminars to support the initiative. In all over 27,500 information packs were distributed.

This was followed by over 2500 inspections of roofwork activity which resulted in 150 prosecutions and over 600 prohibition notices. Area Office commitment to the campaign varied. London South and Scotland East completed over 300 inspections, whereas South West Area Office completed less than 50.

The Executive are currently evaluating the impact of publicity during the campaign. The preliminary work showed that 38 per cent of contractors were aware of the campaign. Awareness was highest among large contractors, with the self employed and small contractors being more difficult to reach.

The Executive are undertaking a follow-up exercise during 1993-94 to assess the added value of advertising. Two Area Offices have been selected to run local roofwork campaigns. One will use media advertising in conjunction with preventive inspections; the other will not.

The Channel Tunnel

Work started on the Channel Tunnel, Europe's largest construction project, in 1987. The project posed demanding technical and safety management problems. In addition to the challenges associated with managing a workforce of up to 12,000 there were significant dangers to health and safety from tunnelling work, from the use of machinery in the tunnel, particularly vehicles and railway rolling stock, and from fire.

The Executive and their French counterparts enforce health and safety in their respective sectors of the project. A committee of local inspectors and specialist inspectors chaired by the South East Area Director determined enforcement strategy and priorities as the project developed. A team of inspectors based at Ashford, in Kent, held regular meetings with the contractors, and by reviewing the plans for the project identified high risk activities. They then targeted these activities during the inspection programme.

Inspectors have adopted a multi-disciplinary approach to enforcing health and safety in the tunnel, with field inspectors involving specialist inspectors on a regular basis. For example, specialist inspectors from the Executive's Accident Prevention Advisory Unit undertook an audit of the safety and maintenance of tunnel boring machines.

The Executive consider that in the case of the Channel Tunnel, in contrast to other construction projects, all reportable injuries were actually notified to them. In this context, from the start of the project until September 1992, there were over 1,250 reportable injuries including seven fatalities and 150 major injuries on the UK side. The Executive brought legal action against members of the consortium on seven occasions of which five related to fatalities. Seven improvement notices, and six prohibition notices have also been served on tunnel contractors.

The Executive are undertaking a review to identify lessons from the project. Publication is planned to coincide with the opening of the tunnel. When the tunnel becomes operational the Railway Inspectorate will assume prime responsibility for enforcing health and safety in the UK half of the tunnel. Other parts of the Executive will continue to be involved in support of the Railway Inspectorate.

Glossary of terms

Asbestosis	A lung disease caused by exposure to small particles of asbestos.
Field Consultant Groups	Specialists, such as process engineers and occupational hygienists, based in regions who provide technical advice and support to inspectors in Area Offices.
Hazard	The potential of a substance, material or activity to cause harm.
Major hazard site	A site which has the potential to cause substantial harm. Such sites are defined under the Control of Major Accident Hazards Regulations, 1984 and include chemical plants and oil refineries.
National Interest Groups	Small groups of inspectors based in Area Offices who act as a centre of knowledge on a particular industry or sector. The groups collect information on health and safety risks, communicate with industry, set health and safety standards and disseminate good practice. There are 29 groups covering, for example, the construction sector, the chemical industry, hazardous installations, and the transport of hazardous materials.
Occupational Asthma	An allergic reaction causing difficulty in breathing due to exposure at work to the causing agent.
Risk	The likelihood that a hazardous substance, material or activity will result in an undesired event within a specified period of time or in specified circumstances.
Statutory Notices	There are three types of statutory notices. Immediate Prohibition Notices stop a work activity until a risk is dealt with; Deferred Prohibition Notices stop a work activity within a specified time, for example, because the risk of injury does not require immediate action to control it; and Improvement Notices require employers to take remedial action on specific breaches of the law within a specified time limit.