



The management of safety in Railtrack

A review by the Health and Safety Executive

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FOREWORD

This is a report of a review of safety management arrangements within Railtrack carried out by HSE. The review was commissioned by the Deputy Prime Minister following the Paddington rail crash on October 5 1999. The review began on October 21 and was completed on November 18 1999.

The review team was made up of 14 inspectors from across HSE and one from the Civil Aviation Authority. HSE staff came from a variety of disciplines and sectors including nuclear, offshore, chemicals, manufacturing, railways and HSE's Operations Unit.

During the review the team spent time at Railtrack's headquarters and in 3 Railtrack Zones: London North Eastern, based in York; East Anglia, based in London; and Midlands, based in Birmingham. Team members also held discussions with one contracting company working for Railtrack and with a train operating company.

There are a large number of safety related topics which could have been examined during the review. The team had to work to a short time scale and broad remit which meant that, of necessity, it had to be selective in its approach. A sample of Railtrack's activities were examined to provide a view on the company's arrangements for managing safety. There was a limit to how far the information obtained from interviews and documents could be verified in practice. Interviews were held with staff down to supervisor level and it was not possible in the time available to assess safety on site. Trades Union safety representatives in the Zones visited were kept informed of the review.

Maintenance of, and changes to, the infrastructure are undertaken by contractors. Although the review team held discussions with one contracting company this aspect of safety was not explored in detail due to the time constraints and to the fact that this aspect of Railtrack's operations had been examined in detail by HSE in 1996. The absence of comment on contractor management is a reflection of the limited scope of this review.

Chapter 1 of the report sets out the background to the review: the methodology, the structure of Railtrack and the regulation of railway safety. Chapter 2 contains the essential findings of the review against the key safety management elements of policy, organisation, measuring, audit and review. Appendices 1 and 2 are detailed accounts of the development and use of Standards by Railtrack, and how Railtrack control the access of train operating companies to the network. Appendix 3 contains information on three safety related topics sampled during the review: line side fencing; end product checks; and infrastructure improvements. Other appendices illustrate issues mentioned in the main body of the report and a glossary of terms is in Appendix 11.

The review team is very grateful to the many Railtrack, TOC and the contractor's staff who were involved in the review, often for considerable periods and at short notice.

SUMMARY OF FINDINGS

Railtrack is a large complex organisation whose business deals with major hazards and has the potential to create significant hazards for the public, passengers, employees and contractors. The safety management system of the organisation is also complex but well developed. Significant resources in terms of time, trouble, expense and effort are put into safety management.

Like other employers Railtrack is a duty holder and has to comply with health and safety legislation. In this role it is directly in control of the means and methods which it chooses to use to secure compliance with its duties. But as an infrastructure controller it has two other roles which distinguish it from other organisations:

- it has a “supervisory” role in respect of train and station operating companies on its infrastructure under the Railways (Safety Case) Regulations 1994 ; and
- it assesses and accepts their safety cases and monitors compliance with them.

Railtrack also has potential to influence the Railway Group because of its central position in the industry. Railtrack exercises a leadership role within the Group, primarily through the preparation of the Railway Group Safety Plan and the maintenance of the Railway Group Standards Code in accordance with the terms of its Network Licence.

Railtrack has a complex relationship with train and station operating companies, being an acceptor of safety cases and a service provider. This has the potential to create tensions between commercial and safety considerations but the review found that Railtrack is diligent in separating these interests. No evidence was found that commercial interests outweighed safety considerations within Railtrack.

The current safety management system is still being developed to cope with the changing nature of the expanding railway business. There are strengths and weaknesses in the current arrangements and Railtrack is already making improvements to some of the key areas of weakness. However, a fresh approach could be adopted in some areas and the findings of this report are intended to stimulate the pace of developments in a direction which it is believed will improve the cost-effectiveness of the efforts devoted to safety and its management.

In summary the key areas for attention are:

- Railtrack could enhance its leadership role within the Railway Group by leading the development of Group Standards for key safety management system processes such as investigation, inspection and audit;
- Railtrack could improve the way it seeks to secure Train Operating Companies' (TOCs) compliance with their safety cases by:

- expanding the scope and nature of monitoring TOC performance, particularly at Railtrack Zone level;
 - clarifying what constitutes unacceptable TOC performance and the means for securing remedial action;
 - improving the co-ordination of activity and information on TOCs collected by Railtrack's Safety and Standards Department and Railtrack Line.
- Within the Line, Railtrack could enhance safety management by improving:
 - the performance criteria for the key components of its safety management system;
 - the use of risk assessment both in establishing performance criteria and in proportionately allocating resources and prioritising safety management actions;
 - active monitoring at corporate and Zone level by developing key performance indicators which enable an assessment of overall performance and permit real time re-allocation of resource according to emerging needs;
 - investigation of accidents and incidents to establish underlying causes and consistent, comprehensive analysis of common causes and trends;
 - auditing so that activity is targeted at need, co-ordinated across the organisation, reported in a helpful style, audit actions closed out speedily, and underlying causes analysed to achieve continuous improvement;
 - the information for review to enable an overall corporate picture of performance to be gauged so that better strategic decisions can be taken;
 - external benchmarking with other high hazard industries on safety management system documentation, processes and safety culture as an aid to learning and continuous improvement in safety management practice.

SUMMARY OF AREAS FOR IMPROVEMENT

	Relevant paragraphs in Chapter 2
Policy	
Railway Group Standards:	
• the emerging strategy requires further clarification and documentation;	46
• Railway Group Standards could do more to support the development of effective safety management system elements within the Railway Group.	47
Railtrack Line Standards:	
• insufficient focus on key safety management system processes.	48
Control of TOCs:	
• absence of comprehensive policy on the scope and nature of monitoring TOCs and establishing effective arrangements for dealing with poor performance;	49
Railtrack Line:	
• the delivery of the policy to be intolerant of failure was not evidenced in practice.	50
There are gaps in the written policy statement e.g. on equity of treatment of Railway Group members and Railtrack's leadership role within the Railway Group.	51
Organising - Control	
Responsibility and accountability:	
• variability in Zone performance;	68
• existence of some long standing non-conformances;	69
• scope of accountability too narrow.	70

**Relevant paragraphs
in Chapter 2**

Control of TOCs:

- absence of an escalation policy leading to limited control; 71
- inconsistent understanding within Zones about role in TOC supervision; 72
- no organisational responsibility for formulating an overall picture of a TOC's safety performance as it affects safe inter-working. 73

Organising - Communication

Written information:

- safety management system documentation difficult to understand; 90
- limited documentation at corporate level on criteria for key elements of the safety management system; 90
- information collected and stored in a fragmented way 91
- no single reference point on TOC safety performance 94
- effectiveness of bottom up communications recognised as an area for development 95

Organising - Competence

Organisational competence:

- absence of performance criteria for safety management system hinders effective development of safety management competence; 102
- some good practice based on personal initiative not the safety management system; 103

	Relevant paragraphs in Chapter 2
<ul style="list-style-type: none"> • knowledge management needs to be addressed. 	104
Account executives are not provided information or skills to consider safety performance of TOCs	106
Organising - Co-operation	
Railtrack Line:	
<ul style="list-style-type: none"> • active promotion of employee involvement needs to be developed. 	112
Standards:	
<ul style="list-style-type: none"> • Standards consultation could improve by taking account of risk or complexity in timescales for consultation. 	113
Planning	
Scope of Railtrack Line plan could be broadened to include all significant company initiatives.	133
Asset management:	
<ul style="list-style-type: none"> • hand-backs outstanding for considerable period; 	134
<ul style="list-style-type: none"> • agreed renewal of assets had been deferred; 	135
<ul style="list-style-type: none"> • some local asset records were incomplete. 	136
Risk assessment:	
<ul style="list-style-type: none"> • unclear methods for how resources are controlled in proportion to risk; 	138
<ul style="list-style-type: none"> • planning processes over dependent on professional judgement and experience. 	139

Relevant paragraphs in Chapter 2

Standards:

- strategic direction of Group and Line Standards still under development; 141
- Group Standards do not cover safety management systems in sufficient detail; 142
- there are a number of problems with the use of temporary non-compliances with Standards. 146

Control of TOCs:

- little evidence of a comprehensive strategy for controlling continued access of TOCs to the network; 147
- no link between material changes to safety cases and track access agreements; 148
- lack of clarity on use of suspension and termination notices; 150
- Zone monitoring not targeted at identifying failures in TOC safety management systems. 152

Measuring - Active Monitoring

Railtrack Line:

- key performance indicators limited in scope and nature; 165
- Zone monitoring of compliance is relatively weak; 168

Standards:

- difficulty for Zones in determining compliance with goal based Standards. 171

Relevant paragraphs in Chapter 2

Control of TOCs

- monitoring by Zones is variable and lacks co-ordination; 172
- audits of TOC safety case compliance could be better at identifying underlying causes, commenting on the effectiveness of TOC SMSs and having more consistent and firmer Zone close out of actions; 173
- Zone close out actions from investigations is variable; 174
- key performance indicators do not capture any aspect of TOC safety performance; 175
- monitoring information on TOCs is not collected together to form a complete picture. 176

Measuring - Reactive Monitoring

Standards:

- Standards dealing with investigation lack a definition of a process for revealing underlying causes; 189
- no Line Standard to support the Railway Group Standard on investigation. 190

Underlying causes of accidents and incidents not always assiduously pursued. 191

Better use could be made of accident data. 193

Key performance indicators on accident investigation do not present any information on causation. 194

Audit

Audit activity could be improved by:

- better co-ordination and targeting; 212

**Relevant paragraphs
in Chapter 2**

- more robust resolution of deficiencies, action plans and close out;
- greater consistency;
- reports containing more on how the company can improve;
- more analysis of results to establish common failings.

Standards:

- uncontrolled discretion of Technical Principals in actioning Standards' audit findings; 216
- Line Standard has no requirement to review and audit the Standards' making process. 217

Control of TOCs:

- little auditing of Line processes for control of TOCs. 218

Review

Information is not always converted to 'intelligence'. 226

Benchmarking needs to be further developed. 227

Standards:

- inadequate review of the Standards' setting process. 228

Control of TOCs:

- overall reviews of TOC performance need to be undertaken. 229

CHAPTER 1 INTRODUCTION

1. From time to time HSE undertakes reviews of management arrangements for health and safety within large organisations as part of the Executive's duty to make adequate arrangements for enforcement under Section 18 of the Health and Safety At Work etc. Act 1974 and using the powers of inspectors under Section 20 of the Act. The present review was conducted on the same legal basis. It was prompted by the Deputy Prime Minister following the Paddington rail crash on 5 October 1999, when 31 died and 245 were injured in a crash between two trains operated by Great Western and Thames Trains. Though prompted by the accident, this review was not part of the investigation of the disaster itself. Nor was it part of the inquiries which were set up in its aftermath chaired by Lord Cullen (inquiring into the circumstances of the crash and rail safety more generally) and Sir David Davies (inquiring into train protection systems).
2. Rather, this review was concerned with how safety is managed generally within Railtrack. Its aim was:
 - by inspection to audit Railtrack's activities to manage safety under the Health and Safety at Work etc Act 1974 and other relevant statutory provisions and identify the strengths and weaknesses of the current situation.
3. In particular, the review examined the adequacy of the management arrangements within Railtrack for the provision and maintenance of safety on the railways with reference to:
 - setting and using Standards (both Railway Group Standards and Railtrack Line Standards);
 - safety in the provision and maintenance of the infrastructure and compliance with safety requirements;
 - controlling access of train operating companies (TOCs) to the network and monitoring compliance with safety requirements;
 - how the variety of commercial and safety interests, which may arise within and between organisations involved in the railway system, are managed.

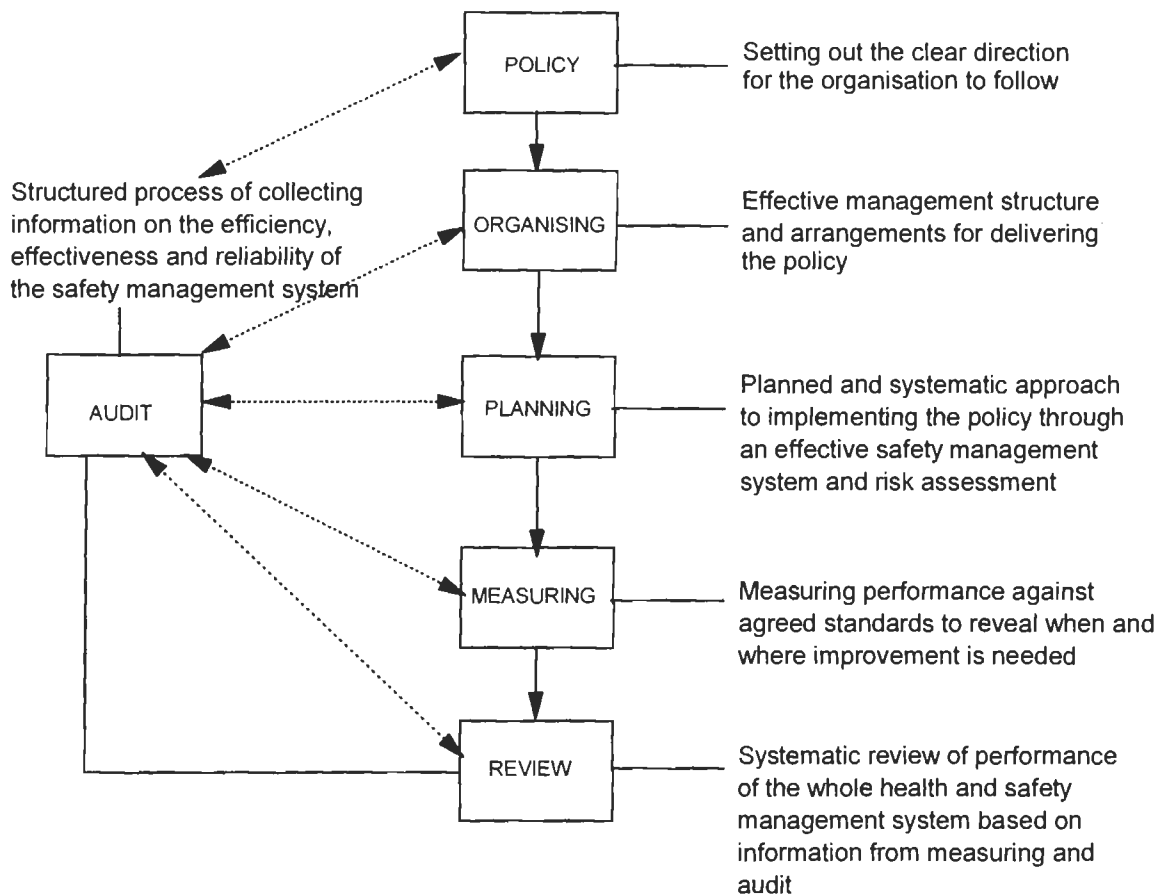
METHODOLOGY

4. It is widely recognised that effective management systems are the key to securing high levels of safety performance. The central elements of such safety management systems are set out in the HSE publication HSG 65 Successful Health and Safety Management¹. Figure 1 illustrates these elements and explains the key items.

¹ HSG 65 Successful Health & Safety Management 2nd Edition 1997 - HSE Books ISBN 0 -7176 -1276 -7

FIGURE 1

KEY ELEMENTS OF SUCCESSFUL HEALTH AND SAFETY MANAGEMENT



5. The team used an audit approach to assess the management of safety in Railtrack based on the POPMAR (policy, organisation, planning, measuring, audit and review) model of HSG 65. The POPMAR approach is reflected in the structure of later chapters in the report. The review methodology was similar to others used by HSE to audit the management of safety in large organisations. There were two main sources of evidence:

- examination of documents;
- interviews with staff from Railtrack, a contracting company and a TOC.

6. Due to the limited time available and the extensive nature of the rail network, visits to assess safety on site could not be made. The main emphasis was on assessing the arrangements for safety management and the systems for risk control by sampling some topics in more depth. The review did not look at how Railtrack manages its activities in relation to major stations for which it is the station operator. Nor did it study in any depth the way in which Railtrack manages contractors employed to maintain and improve the infrastructure because this aspect of Railtrack's operations was studied by HSE in 1996.
7. The review was structured around four topics or trails which represent some of the essential functions which combine to provide safety on the railways, they were:
 - corporate management - how Railtrack is committed to, and organised for, safety at a senior level;
 - infrastructure safety - how Railtrack ensures safety of the track, signals and structures (track, bridges, tunnels etc);
 - Standard setting - how Railtrack leads the process of Standards making for the Railway Group and Railtrack Line (whenever Standards with a capital "S" are referred to in this report it relates to Standards which have been developed within Railtrack's Safety and Standards Directorate for the Group as well as those centrally in Line and Zones i.e. both Railway Group Standards and Railtrack Line Standards).
 - controlling access to the network by TOCs - including how Railtrack assesses safety cases produced by TOCs and then monitors compliance by the TOCs.
8. The review team formed four smaller teams, each of which followed one of the four trails. The corporate team's activities centred on Railtrack HQ and interviews were held with the Chairman, Chief Executive and some of the key personnel at Director level. The infrastructure team went to the East Anglia and London North Eastern Zones as a representative sample of Railtrack operations. They also held discussions with a contracting company. The Standards setting team spent time at Railtrack HQ and went to East Anglia Zone to explore the interaction between HQ and the Zones on Standard setting. The TOCs team spent time at Railtrack HQ and they went to the Midlands Zone and East Anglia Zone to explore how access of TOCs to the network is controlled at Zone level. They also visited one TOC.

STRUCTURE OF THE RAIL INDUSTRY

9. Britain's mainline rail network was nationalised in 1947 and the following 40 years saw the power and influence of the British Railways Board grow as control of a wide range of functions became centralised. BR operated a fully integrated railway operation and was responsible for all aspects of design, construction, maintenance and operation of the network.

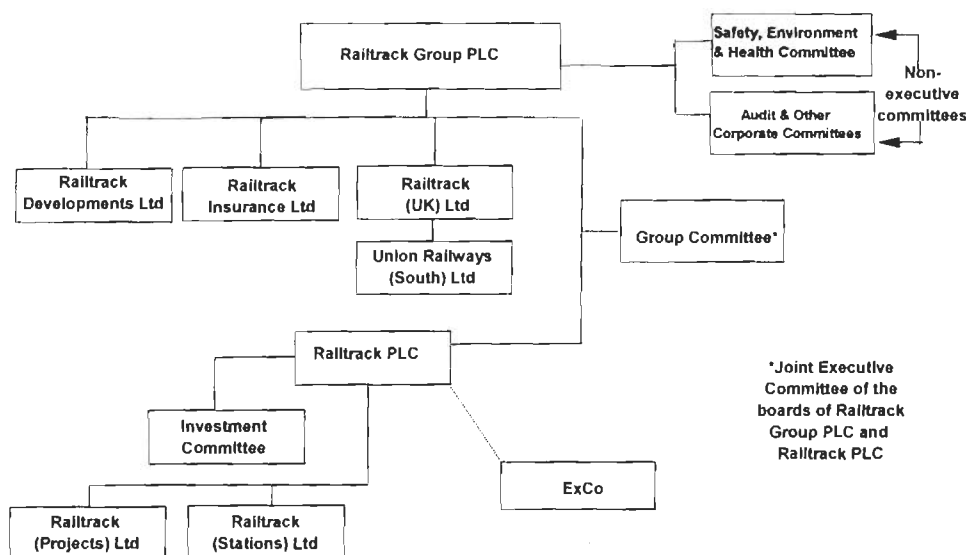
10. In the run up to privatisation in 1994 BR was restructured to create an organisation whose parts could migrate into fully independent vested entities which would transfer, progressively, to private sector control. Railtrack plc became the owner and controller of the majority of the former BR infrastructure i.e. the track, signals, bridges, viaducts, tunnels, level crossings and so on. Those responsible for maintenance and renewal of the infrastructure were broken up into organisations working under many separate contracts. Railtrack is responsible for maintenance and renewal of the infrastructure but, from the outset, it has chosen to employ contractors to undertake the necessary works.
11. Train operations were allocated to 25 separate TOCs. Franchises were granted to these TOCs by the Office of Passenger Railway Franchising (OPRAF). The passenger rolling stock passed into the ownership of 3 rolling stock companies (the ROSCOs) who lease rail vehicles to train operators. Railtrack holds the freehold on virtually all the stations but these (except for some major stations) are in turn leased to station operators (usually TOCs).
12. The key players in the privatised rail system are:
 - Railtrack plc who own the infrastructure;
 - TOCs (and freight operating companies) who operate the trains and in many cases the stations;
 - vehicle owners (e.g. ROSCOs who lease rail vehicles to TOCs);
 - contractors working for Railtrack who maintain and renew the infrastructure; and
 - the Regulators (e.g. HMRI, ORR and sSRA).

RAILTRACK GROUP PLC AND RAILTRACK PLC

13. At the time it took control of the railway infrastructure, in April 1994, Railtrack was a public sector company and had been expected to remain so at least until the first round of franchising of the TOCs had been completed. However, the Government then decided to float Railtrack into the private sector and this was done in 1996.
14. The structure of the Railtrack Group of companies is shown in Figure 2 below.

FIGURE 2

RAILTRACK CORPORATE STRUCTURE



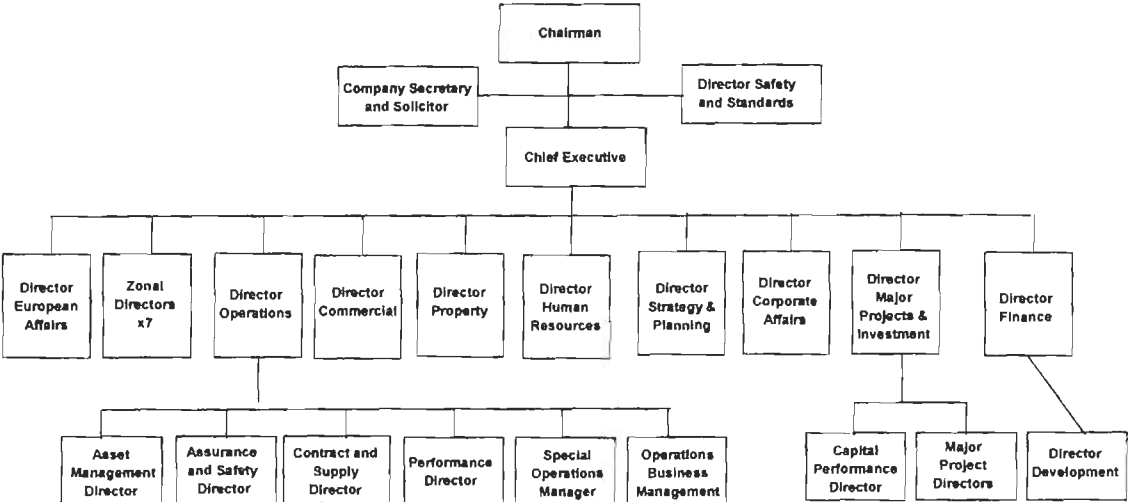
15. The main elements and functions of this structure, relevant to this review, are set out below.
16. **Railtrack Group plc's** only assets are the shares it owns in its subsidiary companies (Railtrack plc and the limited companies shown in Figure 2). The role of Railtrack Group plc Board is set out the Railtrack Safety Case i.e. "..... to determine the strategic direction of Railtrack Group plc, endorse overall policy measures to this end, to monitor the performance and protect the integrity of Railtrack Group plc, and to ensure that all statutory and legislative requirements for health and safety are met". However, the Railtrack Safety Case confirms that the Railtrack Group plc Board has no power to direct Executives of Railtrack plc in the discharge of its role as infrastructure controller and station operator of the designated major stations.
17. **The Safety, Environment and Health Committee (SEHC)** supports the Group Board. It is made up of non-executive Directors. The committee's purpose is to recommend to the Group Board for approval the Group safety, environmental and health policies and strategies. The committee has no executive powers.
18. **Railtrack plc** is wholly owned by Railtrack Group plc. Railtrack plc owns all the physical assets of the infrastructure - the track, signals, bridges, tunnels etc. Railtrack plc is the main infrastructure controller under the Railway (Safety Case) Regulations 1994². It has a safety case accepted by HSE and it is responsible for accepting the safety cases of train, and station operators.

² HSE Railway Safety Cases Guidance on the Railway (Safety Case) Regulations 1994 HSE Books 1994 ISBN 07176 06996

19. **Group Committee** is a joint executive committee of Railtrack Group plc and Railtrack plc. Its role is to expedite the day to day business so that each Board can concentrate on strategic issues. The responsibilities of Group Committee include:
- the development of policy and strategy in major areas;
 - reviewing, monitoring and implementation of policy;
 - being mindful of Railtrack plc's duties as infrastructure controller; and
 - establishing arrangements for safety, environment and health.
20. **ExCo (The Executive Committee)** brings together the Chief Executive of Railtrack plc with Zone Directors and other key operational personnel. It is the forum for the formulation of proposals required to meet business plan objectives and to review and improve operational safety.
21. **Railtrack Line** conducts the mainstream business activity. Working through its HQ functions and 7 Zones, Line manages the commercial and operational activity to maintain and develop the infrastructure. Line has a role in commercial control of TOCs through track access agreements and in monitoring TOCs' compliance with their Railway Safety Cases (RSCs). Like most other organisations safety is considered an integral business function and is embedded in the functions, roles and responsibilities of the Line structure. The structure of Railtrack plc and a template Zone structure are in Figures 3 and 4 overleaf. Appendix 4 lists the safety functions of Railtrack Line. The Assurance and Safety Directorate (A&SD), reporting to the Operations Director, takes the professional lead on safety in Railtrack Line.

FIGURE 3

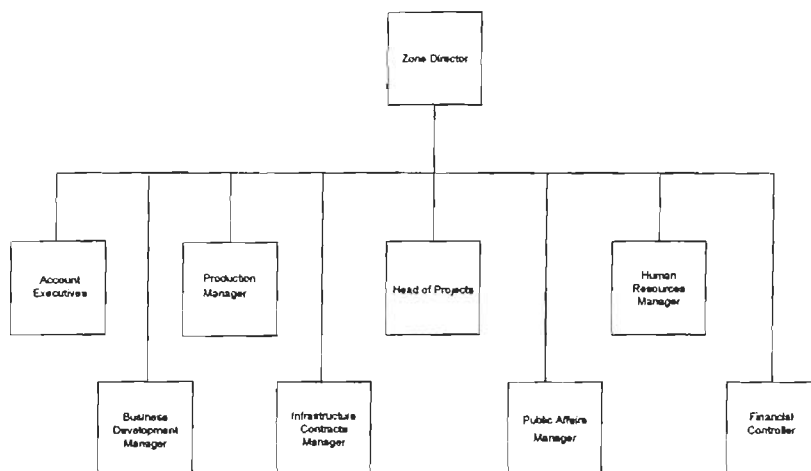
RAILTRACK PLC STRUCTURE



NOTE: Special Operations Manager is shared with Safety and Standard Directorate.

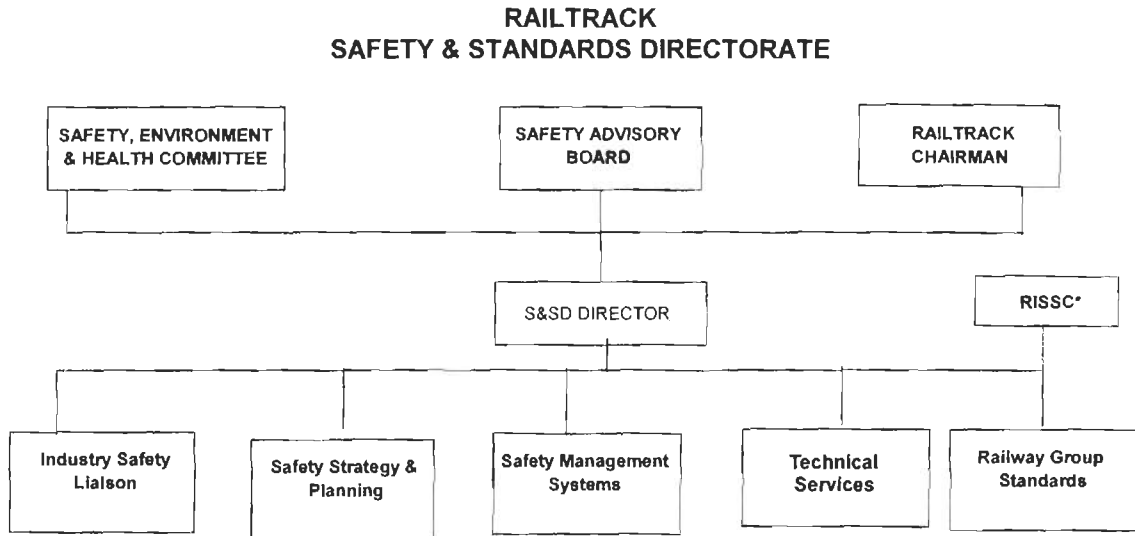
FIGURE 4

TEMPLATE ZONE STRUCTURE



22. A critical feature of the organisation in safety terms is the split between Railtrack's main business activity (the Line) and Railtrack's Safety and Standards Directorate (S&SD). The position of S&SD within the organisation stems from Railtrack's network licence granted by the Secretary of State and enforced by ORR. Licence Condition 3 requires Railtrack to set up and fund a directorate responsible for safety and Standards and which has no commercial functions and responsibilities. In particular S&SD has to prepare the Railway Group Standards Code and manage the development of Standards within the terms of the Code. The licence condition is reproduced in full in Appendix 5.
23. **Railtrack's Safety and Standards Directorate (S&SD)** functions relate exclusively to safety. S&SD provides a service to the Line through providing advice, auditing and preparation of the Railtrack Safety Case (RTSC). But its remit is not confined to Railtrack. The concept of the Railway Group has developed which comprises Railtrack and the duty holders with RSCs accepted by Railtrack. It therefore consists of Railtrack, the TOCs, freight operating companies and station operators. Railtrack, through S&SD, plays a central role in developing guidance and Standards for the Railway Group as a whole and in monitoring compliance. The RSCs require adherence to certain Standards. S&SD leads the process of setting Group Standards. The structure of S&SD is shown in Figure 5 below and Appendix 6 lists its responsibilities.

FIGURE 5



*Railway Industry Safety Strategy Committee

24. S&SD is structured into 5 process based departments:

- Safety Strategy and Planning which directs the development of railway safety management strategy for the Railway Group and S&SD;
- Technical Services which provides technical advice to support S&SD decisions on safety, Standards and controls;
- Railway Group Standards which develops, delivers and justifies mandatory safety controls through Standards for the Railway Group;
- Safety Management Systems which ensures that the safety arrangements of Railway Group members are adequate to meet statutory obligations;
- Industry Safety Liaison which leads and directs all aspects of S&SD's dealings with other organisations.

25. There are 3 other groups which exercise functions in relation to S&SD.

- **the Safety, Environment and Health Committee (SEHC)** monitors and receives stewardship reports on the work of S&SD in connection with RSCs (including Railtrack's), the Railway Group, audits of Railtrack and Railway Group Members, dealings with HSE, and accident and incident reports;

- **the Safety Advisory Board (SAB)** advises the Director of S&SD on strategy and policy development and scrutinises S&SD's operations and conduct;
 - **the Railway Industry Safety Strategy Committee (RISSC)** provides S&SD's Railway Group Standards Department with advice on development of Group Standards and draws its membership from the Railway Group.
26. S&SD is funded, maintained and supported by Railtrack plc as a condition of the company's operating licence, but operates independently of Railtrack's commercial activities, under its own management team. The Director of S&SD reports directly to the Railtrack Chairman and is a main board Director of Railtrack plc. The Director of S&SD is also a Director of Railtrack Group plc.

REGULATING SAFETY ON THE RAIL NETWORK

27. It is important to see rail legislation in the context of health and safety law which applies to all work activities. The primary law is the Health and Safety at Work etc Act 1974 which requires all employers to conduct undertakings in such a way so as to ensure, so far as is reasonably practicable, that their employees and any others who may be affected are not exposed to risks to their health and safety. Also relevant are the Management of Health and Safety at Work Regulations 1992, as amended, which require, amongst other things, risk assessments to be undertaken.
28. These general laws are supported by Regulations specific to railways which emerged from recommendations made in the report "Ensuring Safety on Britain's Railways".³ This report was submitted to the Secretary of State for Transport by the Health and Safety Commission following decisions on how the rail network was to be privatised. It set out some principles to guide the development of a new regulatory framework to match the needs of the privatised rail system:
- safety systems must address technical, operational and organisational issues;
 - duties and responsibilities of organisations and individuals must be adequately defined;
 - within the limits of their control, the infrastructure controllers will bear primary responsibility for the coordination of measures to control risk on the railways; and
 - there must be effective coordination and co-operation between all parties and individuals.

³ Ensuring Safety on Britain's Railways: Department of Transport January 1993

29. At the heart of the regulatory framework are the Railway (Safety Case) Regulations 1994, which were designed to ensure that a new operator has the will, capabilities, organisation, systems and resources to operate safely from the start and then to continue operating safely. Each railway undertaking (train or station operator or infrastructure controller) is required to produce a safety case setting out its policy, risk assessment, SMS, operational, maintenance and audit arrangements (in so far as they relate to health and safety).
30. The RSC of each operator and infrastructure controller is validated by an external body to check its likely effectiveness. It was deemed essential that the infrastructure controller should be in a position to satisfy itself that those who were to operate on its network would do so safely, so Railtrack, as that external body, assesses and has to accept, the RSCs of train and station operators. HSE assesses and accepts the safety case of Railtrack plc.
31. All undertakings must have RSCs accepted before they can operate and, thereafter, compliance with the procedures and arrangements set out in their RSC is a legal requirement. Where an RSC has been accepted by an infrastructure controller, the latter must ensure the operator follows the procedures and arrangements described in it insofar as these affect, or are likely to affect, the performance of the infrastructure controller's health and safety duties. RSCs must be revised whenever appropriate and operators must review them thoroughly at least every 3 years.
32. In addition to the Railway (Safety Case) Regulations 1994 there are Regulations dealing with: competence of employees performing safety critical functions; approvals by HSE for new engineering works undertaken by, or on behalf of, Railtrack; approvals by HSE for new traction and rolling stock; future prohibitions on trains operating without train protection systems, or with certain types of rolling stock; and miscellaneous provisions dealing with access to the infrastructure, passenger communication, preventing collisions and derailments, providing and maintaining brakes, and accidents to people at work from moving vehicles.
33. Neither Railtrack nor any other company have regulatory functions (as distinct from duties under the law) but Railtrack has an important role in promoting safety on the network as a whole. This role is exercised in a number of ways in addition to acceptance of RSCs:
- setting Railway Group Standards for system safety and safe inter-working;
 - controlling access to the network and monitoring Railway Group members compliance with their safety cases;
 - managing processes for the production of Railway Group Safety Plans and reports.

- providing a collaborative lead for the Railway Group on a range of issues such as signals passed at danger, track safety and the industry response to consultation on safety related safety related issues.
34. These roles are examined in more detail later in the report.
35. There are other regulators of the railway system who have an influence on Railtrack operations. **The Office of the Rail Regulator (ORR)** issues licenses to the train and station operators, enforces domestic competition law on the railways, approves track access agreements by which operators get onto the network, and oversees Railtrack's investment commitments. A condition of granting a licence is that the operator has an accepted safety case. **The Office of Passenger Rail Franchising (OPRAF)** monitors and manages the passenger train franchises operating on the national network in order to promote the interests of passengers through improved quality of service. **The Shadow Strategic Rail Authority (sSRA)** will be established formally in law when the Transport Bill is passed by Parliament. The SRA will, amongst other things, subsume the functions of OPRAF and the consumer protection functions of ORR.

CHAPTER 2

POLICY

Policy: Strengths

Policy Principles and Direction

36. An up-to-date written corporate safety policy statement, signed by the new Chairman, sets out Railtrack's approach to safety management. This has been cascaded to Zones, and Zone Directors have issued supporting statements to emphasise the importance of safety. The corporate policy has a number of positive features and principles which are in line with current good practice. These include:
- improving safety through setting goals and targets;
 - adherence to defined standards of excellence;
 - robust monitoring and investigation systems to enable the thorough evaluation and management of risk;
 - an intolerance of failures to establish safe methods of work or to comply with legislation, formal procedures and commitments; and
 - provision of adequate resources to support the policy.
37. Discussions with Directors revealed a sincerity in managing safety and an increasingly robust approach to safety management. New thinking on how to improve performance is being developed and there are aspirations to make the British railway system world class. Directors are however rightly cautious about committing themselves to vague or unrealistic ambitions which cannot be accurately defined such that effective plans for achievement of change cannot be developed and implemented. This rigorous approach with an emphasis on planning and establishing effective processes for safety management is appropriate and consistent with good practice.

Railtrack and the Railway Group

38. Railtrack has taken the lead on safety in the railway industry through the development of the Railway Group concept. The Group, made up of Railtrack and operators with RSCs involved in the railway system, co-ordinates industry activity on safety and is supported in practical terms by the development of Railway Group Plans and Railway Group Standards. These aim at co-ordinated effort and effective, safe inter-operability of railway companies. This is supported by a policy of ensuring equity in the treatment of all Railway Group members, including Railtrack.

Railtrack Safety Case (RTSC)

39. Compliance with the Railway (Safety Case) Regulations 1994 forms the central plank of the safety management approach of Railtrack. The RTSC sets out the SMS both for the internal management of infrastructure risks and for the control of access to the network by train operators and others. This is supported by the development of Railtrack Group and Line Standards which set criteria for the key aspects of controlling risk.

Standards

40. Railtrack has correctly identified Standards as a key element of effective control of risk on the railway. Railtrack inherited a large number of BR Group Standards which were developed to meet the needs of the pre privatised system. The need for rationalisation and restructuring of these Standards has been recognised by Railtrack and a process of converting the Standards to meet the needs of the post privatised industry is in hand.
41. The emerging strategy involves the development of a risk model for the whole of the railway, a risk control database which links the controls to Group Standards, approved codes of practice, guidance notes and criteria in RSCs. This systematic approach is being used to verify the adequacy of the range of Standards in the process of rationalisation post privatisation.

Control of TOCs

42. Through its policy on RSC assessment and acceptance, Railtrack has strong control over initial access of TOCs to the network. In its day to day dealings with TOCs, Railtrack manages the conflict between supplier/commercial and safety enforcement roles diligently.

Contractors

43. Railtrack makes extensive use of contractors in the upgrade and renewal of the infrastructure. Directors and senior managers are clear that this in no way lessens Railtrack's responsibility for safety of the infrastructure and increasingly robust methods of contractor management are being developed to strengthen the existing situation.

Resources

44. The overall resource devoted to safety and its management in terms of financial spend, time and effort is significant. A high proportion of all financial spend (in the region of 80%) has some safety element and, in addition, substantial management time and effort is devoted to the management of safety in the development of plans, checking Standards and monitoring results. Significant resource and expertise is available to assist and guide Railtrack management on safety in both HQ and Zones.

Policy: Areas For Improvement

45. Although considerable resources are devoted to safety there is potential for achieving better effect. More cost effective safety management could be achieved by exploring a number of themes which are set out in this report. Railtrack has already identified some of these issues. The suggestions in this report aim to support and develop that thinking, input new ideas and stimulate an increased pace in the evolution of safety management across the industry.

Standards and Safety Management Systems

46. **The emerging strategy of rationalising Standards to better match railway safety risks is sound but there is not, as yet, a documented strategic policy.** Neither is it clear how Standards will enhance the development of effective SMSs within the Railway Group.
47. Group Standards could be used more effectively to provide additional leadership in the Railway Group. The present emphasis on rationalising Standards and developing those to enhance the inter-operability of railway companies directed at effective, efficient and safe working is important. **But the role of Group Standards to support the development of more effective safety management within all Railway Group companies has not been fully explored.** Setting Group Standards for the key components of SMS, such as inspection, investigation and audit, has the potential to enhance the performance of all Group members. Such Standards could:
- provide a shared approach to safety management and form a transparent basis for equity across the Group;
 - facilitate training and competence assessment on key SMS processes and activities;
 - support consistent safety case assessment across all Railway Group companies;
 - be used to set Standards for consistent audit processes across all Group companies.
48. **Within Railtrack Line the importance of clarifying the SMS in sufficient detail and focusing on key processes has not been fully recognised.** The SMS is set out in the RTSC and Group and Line Standards support and further define the SMS. Additional criteria and Standards for key processes such as risk assessment, inspections and investigations would assist consistency and performance, particularly within Zones. Clarifying safety management processes is the key to identifying relevant competencies.

Control of TOCs

49. **A comprehensive policy for controlling the access of TOCs to the network has not yet been devised.** The diligent assessment of TOC RSCs is not supported by adequate arrangements for ongoing monitoring of performance of TOCs against their safety case commitments. The current approach lacks co-ordination between the centre undertaking annual audits and the Zones monitoring day to day activity. The current arrangements at Zone level lead to an incomplete picture of how TOCs comply with their RSCs. Railtrack is aiming to standardise and extend the scope of the monitoring of TOCs across the seven Zones through publication of new procedures in the Zone Assurance Manual (ZAM). Although some work has recently been done on how to deal effectively with poor performance it remains incomplete. There is a need to:
- identify what TOC monitoring is required, by whom, and how frequently, to ensure adequate information is collected to provide an accurate picture of TOC performance relative to risk;
 - establish the criteria to identify TOC performance which is unacceptable;
 - set out the appropriate actions to remedy poor performance in a proportionate way with contingencies if a TOC response is inadequate; and
 - document the criteria and arrangements to ensure transparent, consistent and equitable application to each TOC.

Delivery of the Policy

50. **A strong ethos of “intolerance of failure to establish safe methods of work or to comply with legislation, formal procedures and commitments”, articulated in the written safety policy statement, was not evidenced in practice.** There were too many instances where audits had revealed non-compliances which had not been discovered by day to day monitoring. In some cases the non-compliances had been raised before but had not been dealt with effectively. In the absence of a strong system for prioritising non-compliances the significance of these issues could not be assessed. However they do indicate a weakness in a determination to fully achieve compliance with Standards or to resolve the causes of non-compliance. There was evidence of strong action to deal with some poor performance and a recognition of weaknesses in this area and plans are in hand to deal with the issue. But it remains an area where increased attention is required.

Gaps in the Written Policy Statement

51. **The existing written policy statement does not capture all the company's philosophy and approach to safety management or its leadership role within the industry.** For example, the articulated policy of equity, the policy on monitoring TOCs' compliance with their safety case and senior management's expressed wish for the company to have a leadership role with respect to the Railway Group are not adequately covered.

ORGANISING - CONTROL

Organising - Control: Strengths

Committee Structure

52. There are a series of committees and mechanisms at corporate level which are used to control safety activity across the company. Together they ensure that safety receives attention at Director and senior manager level. Safety is regularly on the business agenda.
53. The corporate structure is illustrated in Figure 2 and terms of reference and activities of the various committees are clearly defined in the Railtrack Corporate Manual.
54. **The Safety, Environment & Health Committee** is a committee of Railtrack Group plc made up of non executive Directors. Under the chairmanship of a new non executive Director the committee has improved its frequency of meetings from at least quarterly to monthly. Its remit covers the activities of the Railtrack Group as well as Railtrack plc. It is responsible for:
- recommending the Group's safety, environmental and health policies and strategies for the approval of the Board;
 - examining and reviewing arrangements;
 - progressing results and issues concerning the safety policies and the safety plans of the Railtrack Group of companies.
55. It acts as a valuable means for independent oversight of the broad approach of the company to safety.
56. There is evidence that the committee has taken action on matters of concern and brought them to the attention of the Board and senior managers. Under the new Chairman the committee is exerting an increased challenge function e.g. by considering the recent corporate audit of Railtrack Line which identified some important areas of non-compliance.

57. The **Group Committee**, chaired by the Chief Executive, is the executive committee of the Boards of Railtrack Group plc and Railtrack plc. Membership includes the Chairman and both executive Directors of Railtrack Group plc and Directors of Railtrack plc. The committee meets twice a month and is the day to day business committee with a commercial focus. Safety issues are raised if they are urgent or important and the Director S&SD attends and provides input as necessary.
58. The Zone Directors report directly to the Chief Executive and the **Executive Committee (ExCo)** is a key forum which brings them all together. It meets at 4 weekly intervals and is Chaired by the Chief Executive. Meetings are attended by the Commercial, Financial and Operations Directors of Railtrack plc as well as the Zone Directors. Terms of reference include "to review and improve operational and safety performance". Safety is a standing item on the agenda and the committee provides one of the major mechanisms for holding the Zone Directors accountable for health and safety.

Responsibility and Accountability

59. The Chief Executive has been instrumental in changing the management culture from one of command and control to one where responsibility is devolved down the line. The increased empowerment of managers is not intended to dilute responsibility for safety and this philosophy is set out in the Corporate Manual which states "...our overarching duty (is to) ensure safety on the railways to establish proper accountability, to protect the health, safety and welfare of all our employees, to comply with our statutory obligations...". This approach is supported by better management information systems through which managers can be held accountable for their responsibilities including those for safety.
60. A key input to ExCo is the monthly Safety Intelligence Report (SIR) and a summary example is in Appendix 7. It is presented to ExCo by the Director of Assurance and Safety (A&SD). The SIR is discussed in more detail in paragraph 80. The Director S&SD also attends for the A&SD report and he also reports on Railway Group activities. The SIR incorporates a Key Performance Indicator (KPI) system first introduced in June 1998. KPIs have been important in driving safety at Zonal level (the current slate of KPIs are listed in Appendix 8). The discipline of having to report progress at the ExCo meetings has been seen as a positive move towards reducing the variation in safety performance between the Zones.
61. In addition to ExCo, the Chief Executive holds quarterly performance meetings in each Zone. The meetings, usually lasting a full day, always feature safety on the agenda. The Zone Directors and their teams are held to account for their responsibilities for operational and safety performance. Detailed reports are provided to inform the discussion and action notes are produced.

62. Railtrack has a well defined organisational structure which is described in the RTSC. This sets out the roles and responsibilities of key post holders. Zone Directors have personal performance objectives, including safety. The Chief Executive reviews the Zone Directors' performance on an ongoing basis and their annual performance bonus is dependent upon meeting their safety objectives. Below Director level there is a performance appraisal system with attainment of an individual's safety related objectives being a significant feature. Zones have Executive Committees which comprise the Zone's senior management. These meetings mirror the activities of ExCo.
63. S&SD is financed and supported by Railtrack but great emphasis is placed on maintaining the independent role of S&SD within the company. S&SD is overseen by the Safety Advisory Board which has Railway Group and wider industry representation, and the Director of S&SD reports directly to the Railtrack Chairman. S&SD is responsible for managing the Railway Group Standards system and the arrangements are detailed in the Railway Group Standards Code and relevant supporting Standards. Within S&SD, roles and responsibilities are defined within their ISO 9002 Quality Management System and Technical Principals have ownership of relevant Standards.
64. In Railtrack Line, A&SD manages the process for the creation, revision or deletion of Line Standards. Again roles and responsibilities are defined and Professional Heads of Discipline act as nominal owners of relevant Line Standards. This arrangement is mirrored in Zones. The potential for conflict arising from the Standards making process, both in the Railway Group and Line, is minimised through consultation procedures and conflicts are resolved through discussion.
65. S&SD plays a major role in the processes for controlling access of TOCs to the infrastructure in that it manages the assessment, acceptance, review, change processes and compliance audits of TOC RSCs.
66. Across the company the balance between the commercial and safety pressures in the industry was not seen as a difficult issue by Railtrack staff. Most saw safety and operational performance as complementary with safety paramount i.e. improvements in safety performance would usually result in benefits for operational performance and vice versa.

Contractors

67. The company has recognised that control of contractors has been a problem which has safety implications. Separate reports and KPIs are used to monitor contractor performance at ExCo. Furthermore, as contracts come up for renewal, Railtrack is moving towards closer partnership with contractors supported by more effective performance measurement systems.

Organisation - Control: Areas For Improvement

Responsibility and Accountability

68. **There is evidence that the performance of Zones in terms of their SMSs is variable.** In part this may be a legacy from the early days of privatisation when Zones were allowed to develop their own approaches to safety management and granted significant discretion so long as they met the objective of reaching a level 5 score on the ISRS/RSRS⁴ auditing system.
69. **However, the existence of some long standing non-conformances, as revealed by recent A&SD and S&SD audits, indicates some weaknesses in active monitoring.** This raises a question about the effectiveness of accountability arrangements in Railtrack Line.
70. The SIR and KPI systems are evidence that more focus is being put on the system of accountability. But it seems to have taken some time for this key aspect of safety management to be strengthened in this way. At present **the scope of accountability does not adequately capture all facets of performance to ensure effective control.** For example, the Chief Executive is not given a full picture of the existence and adequacy of the operation of the SMS in the Zones.

Control of TOCs

71. The control Railtrack exercises over TOCs is predominantly focused on the control of initial access and is less focused on controlling TOCs' day to day activities once access has been granted. **The absence of an escalation policy, supported by clear criteria, results in Railtrack exercising only limited control over the TOC once the RSC had been accepted.**
72. There was some **inconsistency between senior staff in different Zones about their understanding of their roles**, and therefore practice, in using the information gathered from monitoring of TOC activities. Some thought they were only responsible for confirming that applicable Group Standards were being met and that it was S&SD's responsibility for ensuring TOC compliance with its RSC. Others considered they were responsible for using identified non compliance with Group Standards as a route to alerting themselves and S&SD to possible RSC non compliance.
73. **No-one within Railtrack was responsible for formulating an overall picture of a TOC's safety performance and for pursuing corrective action against poor performers.**

⁴ International Safety Rating Systems and Railway Safety Rating System - RSRS was developed in 1998/9 and based on ISRS to suit railway activities and incorporate auditing compliance with the RTSC.

Standards

74. The Railtrack Line Standard covering the Line Standards setting process is very detailed and some interviewees considered it to be very bureaucratic. There was some evidence that this had led to people being unclear as to what was expected of them.

ORGANISING - COMMUNICATIONS

Organising - Communications: Strengths

Written Information

75. Extensive written information exists within the company on safety issues. Use is now being made of available technology to aid access to information e.g. Line/Group Standards are available on CD. Databases also exist for the collation of information from formal inquiries and investigations and many aspects of operational and safety performance in the Railway Group.
76. The RTSC is a key document which sets out the SMS of the organisation which is supported by a range of Standards at Group and Line level. Railtrack has provided a copy of the RTSC to TOCs. Zones have their own safety manuals and their internal staff newspapers included safety related items.
77. The numerous Railway Group Standards on safety are being gradually reviewed and revised to bring them up to date and fit for purpose in a modern developing railway system. At present, information on Standards is regularly disseminated by S&SD to members of the Railway Group and others as necessary. Briefing notes are issued with new and revised Railway Group Standards.
78. Railtrack's National Control Centre provides information to the Line and to other Railway Group members on incidents and there is a system for rapid notification of events, which is described later in the report (see paragraph 187).
79. Numerous reports on audits, accident investigations and particular safety related topics exist. The various safety related committees are supported by papers which are produced on various issues e.g. "the Role of Auditing in Railtrack Line" which was presented to ExCo.
80. SIRs, produced monthly, contain a great deal of information covering proactive and reactive KPIs and progress with plans. A system of using red, yellow and green colours has been introduced within these reports as an effective means of highlighting current progress (red means falling significantly behind target; yellow means on course for meeting the target; and green means target achieved).

81. A review of the document structure of the core processes of the company is being undertaken (Project Release) and safety documentation is included within this. The ZAM, an A&SD initiative currently being rolled out, aims to guide and harmonise activity on safety management across the Zones.

Meetings

82. A range of meetings cover safety both within HQ, the Zones and between Railtrack and other players in the safety system such as TOCs and contractors. Some meetings are dedicated to safety and others have safety as an agenda item.
83. There are a number of meetings of specialists within Railtrack e.g. the Rail Strategy Group which has representatives of the Assurance and Safety Departments within Zones as well as HQ A&SD personnel. This facilitates the sharing of ideas. There was also evidence of moves towards sharing good practice developed by particular Zones. For example, the Scotland Zone had developed a system for broken rail monitoring. East Anglia had developed a particular approach to management of signals passed at danger (SPADs) which was shared with Great Western Zone by seconding a person to assist implementation.
84. In Zones there was a strong top down briefing process which included cascade briefing from the Zone Executive Committee, changes to Standards and a wide variety of safety and performance issues.
85. Formal communication channels were established at Zone level between Railtrack and contractors for renewals and for maintenance. Regular meetings were held where items such as Standards, progress, non conformances and incidents were included on the agenda.
86. Overall, safety is given a lot of 'air-time' throughout the company which reflects the importance the organisation gives to the subject. However, it was not possible in the time available to assess how far down the organisation this permeated and the effect it had on safety behaviour of staff operating in high hazard areas.

Visible Behaviour

87. The requirement for Directors and senior managers to do safety tours is recognised as important and is reflected in the RTSC. The Chairman and Chief Executive regularly visit Zones and meet people at all levels in the organisation as well as contractors and employees of TOCs. Similarly the Operations Director regularly visits the Zones. Within the Zones visited, senior managers were undertaking the required safety tours. One Zone Director had attended a play staged by school children drawing attention to the risks of trespassing on the railway as a means of demonstrating safety leadership.

88. The company has introduced Rail Roadshows which take place in each Zone. The aim is to communicate with staff in the Zones. Each Roadshow is hosted by the Zone Director and the Chief Executive has attended a number of these. A video with a message from the Chief Executive has been prepared. All aspects of business performance, including safety, are discussed at these meetings.
89. In the limited time available to us we were not able to probe the extent to which employees on the ground perceive senior managers visible commitment to health and safety, but clearly this is an important element in promoting a positive safety culture.

Organising - Communications: Areas For Improvement

Written Information

90. In contrast to some other organisations in the high hazard sector, the **overall architecture of the SMS documentation makes understanding difficult**. Despite the good work in hand to revise Standards and document structures, there is currently **limited documentation at corporate level setting out the expectations or criteria necessary to implement the various elements of the SMS in a consistent manner**. This could also be said of some of the Standards documents examined in the course of the review. For example, the Group Standard on lineside security provides good guidance on assessing risks but nothing for assessors on the criteria which form acceptable minimum appropriate precautionary measures. However, Railtrack has recognised some of the limitations of the current approach and has started to address them.
91. Although substantial information is collected on safety performance, e.g. SPADs, accidents, inspections, broken rails, end product checks, this **information is collected and stored in a fragmented way**. There are a variety of different databases, mainly operated independently, with little evidence that information is then shared. In practice it is difficult for management to judge if performance overall is improving and risks are being brought under improved control. Improved mechanisms for collecting relevant data and creating safety intelligence are necessary. This need has been recognised and some thought is being given as to how to move forward.
92. No routine report from the Safety Management Information System (SMIS)⁵ is requested by senior management within Railtrack regarding the safety performance of TOCs specifically.
93. There are individual pockets of very good information regarding the safety performance of TOCs such as RSC audits, COMPASS, TOC files, and SMIS but these are not being used to best effect.

⁵ SMIS is a database of a wide range of safety data such as accidents, incidents, equipment failures etc. - see para. 185 for further details.

94. **There is no single point of reference within Railtrack where all the information on the safety performance of a particular TOC is available.**
95. **The effectiveness of bottom up communications had been identified by Railtrack as an area for improvement.**

ORGANISING - COMPETENCE

Organising - Competence: Strengths

96. Competence has rightly been recognised as a key issue in the delivery of effective safety. Key competences and safety responsibilities for some posts have been identified and recorded in individuals' job descriptions. The overwhelming impression at this stage was of an organisation staffed by experienced, competent and conscientious people.
97. There are a number of initiatives on competence in place and the Railtrack Line Safety Plan 1999/2000 makes specific reference to a project to review the existing technical and behavioural competence requirements of all supervisors, managers and senior managers posts involved in safety critical work, safety related work and its management or direction.
98. The Chief Executive and some other Directors are required to attend a course on strategic safety management run by A D Little but not all had. The new Chairman of the Safety, Environment and Health Committee will also be attending this course which is also run for Zone Directors and other senior staff.
99. There is strong extensive specialist health and safety support to Directors and managers from S&SD and A&SD. These Directorates are staffed by a strong cadre of professional staff. There was a reorganisation in April 1999 of safety and assurance personnel in the Zones with the aim of providing a more effective support function to Zone Directors and line management. The new structure is mirrored in all Zones and aims to reinforce the key role of managers as the implementers of the SMS as distinct from the supporting role of assurance and safety staff. This is good practice since our perception was that in the past safety specialists were primarily in the lead in closing out actions from audits rather than this being line management driven.
100. Advice is also available to management and Zones through the appointment of designated Heads of Profession and their associated networks.
101. The company is readily prepared to buy-in competence through the use of consultants in areas where it may be lacking in-house or where an external view is considered desirable. For example S&SD commissioned a representative from an outside consultancy to provide a peer review of their audit process.

Organising - Competence: Areas For Improvement

102. **The relative under development of the performance criteria for elements of the SMS (see planning below) is a potential obstacle to the effective development of competence in safety management.**
103. There were several examples where good practice in the company relied heavily on the personal initiative, knowledge and experience of individuals rather than the requirements of the SMS. These good practices were not being picked up and incorporated into the system. For example, there was a major programme in one Zone run over two years and involving some 700 staff called Making a Difference. This focused on cultural change through team working, leadership and mutuality and was enthusiastically received by staff.
104. The company has also recognised that as developments take place in some railway activities which it does not undertake itself e.g. operating trains, maintaining plant, equipment and the permanent way, then this has implications for the company's ability to effectively monitor such activities. A similar situation arises as some of the specialists employed by Railtrack begin to leave the organisation. **Knowledge management is an issue which the company needs to address.**
105. It was surprising to find that the current KPI system which enables corporate monitoring of Zone safety performance (as opposed to relying on audit) had only been in place since June 1998. Prior to this, Zones used a range of KPIs which did not allow meaningful comparisons between Zones to be made at corporate level. The fact that this key SMS process was not in place prior to June 1998 raises questions about organisational competence at that time.
106. **Account Executives who are responsible for negotiation of track access agreements with the TOCs are not provided with the necessary safety information and skills to consider the safety performance of the TOCs in negotiations.**

ORGANISING - CO-OPERATION

Organising - Co-operation: Strengths

107. Both S&SD and A&SD make considerable efforts to consult relevant parties in the development of the Railway Group Safety Plan, the Line Safety Plan and Group and Line Standards. Mechanisms also exist within Railtrack to consult with Zones on various safety related topics e.g. the development of KPIs and the ZAM.
108. There was a lot of evidence of good co-operation within Railtrack and between Railtrack and TOCs. There was generally a willingness to share

information and best practice on safety and there had been some joint initiatives between Zones and TOCs e.g. joint emergency exercises.

109. Railtrack Line operate a system of Lead Zones for individual TOCs based on the TOC's primary operating area. The Lead Zone acts as a central focus of contact between Railtrack and the TOC.
110. As noted earlier there are regular meetings between Zone staff and contractors.
111. A Railtrack Safety Council exists which meets quarterly under the Chairmanship of the Operations Director. Membership of this committee includes representatives of Trades Unions. The Council's remit is to consider industry-wide policies and principles related to health and safety. It is also consulted in the preparation of the Railway Group Safety Plan and the Railtrack Line Safety and Environmental Plan. Joint health and safety committees exist at Zone level.

Organisation - Co-operation: Areas For Improvement

112. From the limited evidence available it would appear that **the active promotion of employee involvement in health and safety is under developed.**
113. The **timescales** for the Standards consultation process are generally fixed and **do not take into account the risk or complexity of the issues involved or the number of Standards** that have to be commented upon at any one time.
114. There were indications that the agenda for Safety Interface Meetings in Zones is largely driven by Railtrack and there was some evidence that TOCs perceive this as fostering a blame culture.

PLANNING

Planning: Strengths

Overall Planning

115. A Railway Group Safety Plan (RGSP) is prepared annually under the co-ordination of S&SD. This is based on wide consultation throughout the Railway Group, including TOCs, and makes good use of available intelligence e.g. the Railtrack Safety Council and the Infrastructure Safety Liaison Group
116. The 1999 RGSP takes a new approach of setting 10 year aspirational targets as a focus for long term development. It is supported by a series of measures which aim to improve on the current emphasis on reactive measurement. The plan requires Group members to develop their own SMART (specific,

measurable, attainable, realistic and time bound) objectives and measures which will deliver their contribution to the plan. A summary of the current plan is contained in Appendix 9. The RGSP contains a range of challenging objectives directed at the key hazards of the industry.

117. A separate Railtrack Line plan is produced which builds on and supports the RGSP. This plan is devised by a top-down steer from the RGSP and a bottom-up process combining the needs of Zones. The process includes wide consultation throughout the Railtrack Zones and HQ divisions. This results in a plan with clear objectives which requires Zones to prepare their more specific plans to meet these objectives. Zonal plans are prepared and these identify champions to action objectives, milestones and timescales. The planning process has recently been aligned with general business planning which links the safety plan with the processes of releasing resources necessary to deliver it.
118. Planning for safety is based on a reasonably robust process. Plans are flexible and in general adjustments can be made during the year and additional spending will be authorised where there are clearly justified needs.
119. Railtrack has prepared and keeps up to date its RTSC which sets out the SMS, and references Group and Railtrack Line Standards as a means of elaborating how the SMS should be implemented.

Risk Assessment

120. The RTSC makes use of probabilistic risk assessment tools and risk criteria. The criteria are comparable with, or more stringent than, those adopted by other high hazards industry sectors and are consistent with HSE guidance on risk tolerability. There is also a commitment to the ALARP (as low as is reasonably practicable) principle as a means to maintain the drive to improve safety performance.
121. Risk assessment is used as a means of setting suitable standards for the control of risk. At Zone level a range of techniques are employed to make local decisions. A revised risk management strategy is being developed as part of the 1999/2000 Line Plan. A tool-kit of risk assessment models and techniques to aid reliable, consistent decisions about controls on common hazards such as fencing and level crossings, has recently been issued as part of this strategy. S&SD is developing a range of tools which aim to link industry risks, Standards and controls. This should provide a clearer picture of the adequacy of controls in terms of their scope and depth. When complete this will be a Group resource which could be used to inform risk management decisions throughout the Group.

Asset Management

122. The need for comprehensive information on all equipment, plant and structures that collectively make up the asset base has been recognised. Significant effort and expenditure has gone into identifying and developing a system that is accurate and yet highly dynamic.
123. The development of a Railtrack Asset Register (RAR) at national level is seen by Railtrack as a vital step in the provision of a comprehensive asset information system. This is designed to map the location and nature of equipment, plant and structures owned and maintained by Railtrack. It is reasonably well developed but the processes for populating the system and providing training on its use are relatively new. Currently all Zones are populating the system initially with up to 10% of the Zonal assets. Procedures have been developed to do this in a structured manner.
124. The development of the system is well known within Railtrack and staff felt it to be long overdue. However, staff did recognise that Railtrack had inherited a legacy of uncoordinated and sometimes incomplete regionally based records which originated in the days of BR. From the maintenance perspective it is intended that the system will provide information on condition rating and estimates, and latest remnant life. Railtrack plan to have the system fully populated by April 2001.

Setting Standards

125. A clear procedure for authorising, amending and abolishing Railways Group Standards is set out in the Railway Group Standards Code. This document is 'owned' by Railtrack S&SD. The Code is well understood and the adherence in S&SD to the ISO 9002 Quality Management Standard ensures transparency of the Standard setting process. There is also a clear Standards making procedure within Railtrack Line which is itself a Standard.
126. There is a 5-year plan to review all current Railway Group Standards and the publication of the Standards Department Programme ensures Railway Group members are aware of the current plans for change. Resources to deliver the plan seem to be adequate.
127. Railtrack also have a plan to amend the Standard setting procedure within Line through Project Release. Corporate Standards manage the immediate change to Railtrack Line Standards from Railway Group Standards. The intention is to mirror the goal setting approach in Railway Group Standards. After 31 December 1999 there will be at least one Line Standard to enact a Group Standard.
128. The use and compliance with Standards in the Zone is fundamental to ensuring the infrastructure is fit for purpose, as well as delivering a safe operating environment. Group and Line Standards provide the basis of

Standards within the Zones, and systems were in place in Zones to ensure that Standards information was disseminated, internally and externally, in a robust fashion. The use of asset stewards provided a focus for ownership of Standards at Zonal level. When the roll out of the ZAM is complete there will be a single manual which will help to ensure consistency in the application of Standards across the seven Zones.

Control of TOCs

129. S&SD has well developed plans for the assessment and acceptance of TOC RSCs and the audit of TOC compliance with its commitments. Acceptance criteria for TOC RCSs and an audit protocol for measuring compliance have been established. Plans are also prepared for "fit for purpose" audits of Railway Group Standards. Documented procedures exist for assessing safety cases and these are verified to ISO 9002. There is strong control over initial access of TOCs to the network.
130. S&SD plans call for an audit of each TOC's compliance with its RSC at least once every year. Plans for other audits are based on an informal system of prioritisation but an improved system of prioritisation is in development. This will reflect the complexity and risk of TOC operations together with intelligence on their past performance. S&SD plans to use the developing controls database, risk model and Safety Intelligence Centre in the future to support the processes already applied.
131. S&SD plans have recently been extended to include follow up activity to ensure action plans arising from audits are progressed and implemented. The effectiveness of these arrangements have not yet been tested thoroughly.
132. Plans are also made to audit compliance with Railway Group Standards. These are prioritised based on an assessment of the risks associated with non compliance of the various Standards. Some attempt is being made to identify developing trends in safety performance of TOCs so as to decide which to include in the audit programme. New performance Standards have been developed for day to day monitoring of TOC safety performance by Zones and this is to be incorporated into the new ZAM which will be used across all Zones.

Planning: Areas For Improvement

133. The Railtrack Line Plan builds usefully on the themes and issues identified in the Group Plan. It does not however capture other key objectives which are important to improving the SMS e.g. maintaining RSRS levels of performance, retaining levels of RTSC compliance, work in hand to deal with improvements to auditing including identification of underlying causes. **The corporate element of the Line Plan could usefully capture all significant company wide initiatives to facilitate monitoring at corporate level.**

Asset Management

134. The scheduling of renewal schemes on a robust basis is an important part of the planning process. Problems existed in ensuring that renewal schemes were delivered on time. Outstanding hand over/hand-back had been a serious problem in the past, but things were now improving. Nevertheless **some hand-backs had been outstanding for a considerable period.**
135. **The renewal of some assets which Railtrack had agreed to, had been deferred and this was a matter of concern.** Interviewees gave an assurance that this did not compromise safety but such delays are building problems up for the future.
136. RAR will fully replace all localised records. It is designed to pull together or act as a signpost to much of the information previously held on a number of diverse databases held in hard copy. The success of the developing approach to "Just in Time Maintenance" is highly dependant on accurate asset information. **There was evidence that some local records such as bridge inspections were incomplete. The effectiveness of RAR is dependant on the accuracy and availability of such localised records.**

Risk Assessment

137. As part of the review, the risk assessment of high hazards in the RTSC was referred to an inspector from HSE's Offshore Safety Division but in the time available it was not possible to fully explore the depth of the assessment e.g. the underlying assumptions and the associated degrees of uncertainty, and how the risk assessment had been used to determine control measures.
138. **The methods for controlling the proportionate use of resources are not well developed and were not transparent.** This issue could usefully be captured as part of the risk management strategy work. The use of relative risk assessment tools and techniques to aid prioritisation is also not well developed e.g. methods of ranking the results of inspections, investigations, corrective actions and the elements of audit action plans are not employed. Such techniques are essential to aid prioritisation, focus attention and resources and minimise the overall risks at any point in time. The need for improved ranking tools has been recognised but specific proposals have not yet been prepared.
139. Although planning processes are reasonably strong, at present a full range of risk assessment tools are still being developed, and there are weaknesses in monitoring, planning and prioritising. **Decisions are based substantially on professional judgement and experience without the benefit of the input from considered analysis.**

140. The development of a long term risk management strategy is valuable and should include priority action. But it is surprising that such a key component of a SMS has not been drawn together earlier.

Standards

141. **The strategic direction for Standard setting is still under development.** At Line level Project Release is not expected to deliver until 2003. There remains a short to medium term concern over the number, structure and contents of Standards and how they can be used to support the SMS.
142. **Group Standards do not cover all facets of the SMS in sufficient detail.** For example, a Group Standard exists to guide all Group companies in the investigation of serious accidents and incidents but this does not set general criteria for the design of accident investigation systems as a whole nor for the investigation process, except for composition of the investigating team. However, S&SD is currently consulting on a revised Group Standard on accident investigation which aims, amongst other things, to improve the competence and training of accident investigators to improve the quality of investigations. The opportunity to guide the development of good practice SMS within all Railway Group companies using Group Standards has not been explored.
143. Within Railtrack Line there is also an absence of sufficient Standards on key SMS processes. Although examples of good practice on accident and incident investigation exist at Zone level this has, it appears, been driven by the use of RSRS audits rather than implementation of an appropriate Standard. There is no corporate Standard for investigation. The RTSC is also unhelpful in that it refers to the selection of events for investigation based on severity when good practice demands selection based not only on actual severity of outcome but also on potential. The importance of the potential consequences of an event to focus investigation effort is recognised in the RSRS system but this has not been incorporated either into the RTSC or a Railtrack Standard.
144. The ZAM is designed to bring some consistency and clarity to Zonal SMS processes but this too is limited in its approach. There is no reference in the current draft to investigations. The manual does establish the arrangements for some key SMS processes such as the preparation of inspection regimes for planned general inspections and critical parts. However, whilst responsibilities and duties are assigned, methods and criteria for setting the frequency, nature and depths of inspections are not, and no reference is made to the periodic analysis of inspection reports to identify trends and underlying causes.
145. The necessary bedrock of Standards for key SMS processes has not yet been established. This will create some uncertainty and inconsistency in monitoring and auditing activity. It will also impact on training and

competency assessment where it is unclear what the expectations of the SMS process are.

146. **A serious question arises over the use of temporary non-compliance with Standards (TNC).** Evidence from the Zones indicated:

- timescales for seeking and receiving TNC agreement with HQ - which appeared lengthy. A TNC request for a 1995 Standard which was still awaiting a decision;
- a lack of clarity about what Standard a contractor worked to in the interim until a decision had been taken;
- apparently no incentive for contractors to declare TNC during the period of the contract;
- some TNC certificates had expired some months earlier, but the Zone were unable to advise on the current position;
- some TNC requests indicated that the Zonal budget for the particular Standard had recently been reduced to zero, and there would be a delay in the production of an action plan;
- the level of knowledge of asset stewards about the current position with their asset varied. In one case the asset steward was unsure of which Standards he was non compliant with as well as being unable to confirm that recent actions had been discharged.

Control of TOCs

147. **There was no evidence of a comprehensive strategy for controlling access of TOCs.** However there were plans for improvements to certain management processes important to controlling the access of TOCs e.g. RSC assessment, acceptance and compliance. Plans for dealing with 3 yearly review of safety cases were less well developed and the only system found for anticipating receipt of notifications was an informal arrangement developed by one individual. This example of good practice could usefully be documented in a procedure.

148. **The processes for dealing with material changes to TOC RSCs do not appear to be linked to those for changes to the track access agreements.** As a result it is possible that access may be granted contractually without an accepted material change to the RSC being in place.

149. Regulations do not allow Railtrack the opportunity to make judgements on a TOC's safety performance at the statutory 3 year review of the TOC's RSC and Railtrack is therefore unable to bring pressure to bear on poor performers at this stage.

150. Track access agreements include reference to Suspension and Termination Notices which are formal arrangements which can be used to raise contractual disagreements between TOCs and Railtrack. **The circumstances under which these notices could be used for resolution of safety concerns does not appear to have been clearly defined and agreed within Railtrack**, although consideration of this issue has begun in S&SD.
151. The RGSP is developed through consultation with TOCs but the timescale for delivery of the plan can exceed the franchise period for some TOCs. The long term nature of the plan is a strong feature but ensuring continuity of commitment and delivery from TOCs will be difficult for S&SD.
152. Zonal plans for monitoring TOC safety performance exist but these are less well developed and are **targeted at compliance with certain Railway Group Standards rather than identifying failures in the TOC SMSs**.

MEASURING - ACTIVE MONITORING

Measuring - Active Monitoring: Strengths

153. The RGSP is monitored by feedback from Railway Group companies. Increasing use is being made of selected audits and assessments to support this self reporting approach. The results are usefully documented annually in the review of the RGSP. Railtrack Line activity is monitored at corporate and Zone level.

Railtrack Line Monitoring

154. At corporate level a monthly SIR is prepared which summarises key information. As noted previously SIRs are a recent development and are part of a positive shift to a more numerical approach to safety management and measurement. This is a sound approach based on good safety management practice.
155. The SIRs summarise a range of data including progress against plan and performance against a range of KPIs. Appendix 8 lists the KPIs developed for 1999.
156. KPIs are prepared and revised annually to focus management attention on important aspects of the SMS. They cover some of the components of the SMS set out in the RTSC. KPIs are clearly defined which ensures consistency of measurement across the organisation and Zones. KPIs are also used to monitor contractor performance and to focus attention on key high hazard components such as broken rails.
157. Within the Zones the corporate and other local KPIs are used to check performance. A range of other active checks involving significant resource and effort are also made to secure compliance with the RTSC and Standards.

These include regular maintenance inspections, checks for broken rails, contractor end product checks⁶ (EPCs) of completed work and track quality. Other inspection systems are used in Zones to check compliance and these have largely been promoted by the demands of the RSRS system. Inspection systems were supported by reports which tracked inspections completed relative to planned targets, checklists, and systems for recording and rectifying faults.

158. The depth, degree and consistency of active monitoring is recognised by Railtrack as an area requiring improvement and a major project is in hand to establish a comprehensive assurance based system where a combination of active monitoring and audit will be used to secure compliance.

Standards

159. Procedures to progress Group and Line Standards are verified at all stages of development. Within S&SD the workload and performance of Standards Project Managers and the Standards Unit Programme is monitored, as a line management responsibility by the Controller of Railway Group Standards and during the Standards Management Executive meetings. The Technical Principals and Professional Heads receive directly a range of information e.g. audit reports, incident reports, inquiry reports, conference and research papers etc. EPCs are carried out to ensure compliance with Standards and fitness for purpose. The monitoring of EPCs etc. is ensured by the Infrastructure Contracts Management (ICM) Compliance Manager. The findings form one of Railtrack's KPIs. A Compliance Project conducted by the ICM department has helped to rationalise the process for the setting of Standards at Zone level, principally by allocating 'ownership' of Standards to individuals.

Control of TOCs

160. Monitoring, measuring and checking by Railtrack of TOC performance is primarily carried out by S&SD and Zones. Two main techniques are used: central RSC compliance audit; and Zone checks.
161. The audit process has strong features such as:
- a written process;
 - good planning with clear audit remits;
 - reports sent directly to the TOC Managing Directors;
 - action plans agreed between S&SD and the TOC, and followed up by lead Zones.

⁶ EPC is a procedure of undertaking a statistically valid sample of checks of the infrastructure after maintenance works to enable judgements to be made about the quality of work generally.

162. The format of audit reports had been changed recently to improve consistency and give more detail on the findings of the audit. It is made clear whether the TOC is complying with particular requirements.
163. Zones carry out a range of checks which do not require Zones to probe into TOC SMSs. These include:
- speed checks;
 - compliance with Railway Group Standards - such as at train despatch;
 - SPAD investigations;
 - issues discovered as part of Railtrack monitoring of its own staff e.g. monitoring of signal telephone communication.
164. Issues of concern can be, and are, raised at Safety Interface Meetings (SIM) between Zones and TOCs.

Measuring - Active Monitoring: Areas For Improvement

Railtrack Line Monitoring

165. KPIs are extremely valuable in focusing Zone Directors' attention, activity and effort on safety management. The current KPIs are however largely quantity counts and do not indicate the quality or nature of active monitoring activity within Zones. In particular at corporate level **the KPIs are not useful in answering the key question, "is control of risk getting better or worse?"**
166. KPIs are valuable and need to be retained but in revising them for next year the following thoughts may be useful. KPIs might be used to:
- focus attention on important issues particularly high hazard activities, safety management processes, procedures and central components of the RTSC e.g. track maintenance and compliance with key Standards;
 - promote good safety management practice and stimulate adherence to the key SMS processes within Zones;
 - build on the SMS processes and information within Zones and aggregate that information so that, for the company as a whole, a basket of measures can be used to judge whether overall risk control is improving or deteriorating;
 - facilitate the assessment of comparative performance between Zones;

- assist in identifying when resources (in terms of finance, time or effort) should be shifted between hazard and risk areas and/or Zones to ensure that risks are minimised.
167. It was unclear whether the extensive monitoring activity in Zones ensured that all the risk control measures described in the RTSC were achieving effective control.
168. The evidence from audits of Zones has indicated that significant non compliance had not been discovered prior to the audit and non-compliances have persisted or reoccurred. This indicates that **effectiveness of some active monitoring is relatively weak and a culture of management and measurement by audit has emerged.**
169. Evidence from the Zones indicates that, although significant resources are put into inspections, some managers feel that this does not always give a tangible benefit. The RSRS audit scores also indicate variability in SMS processes for active monitoring at Zone level - see table in Appendix 10. This also shows some variation in inspection report analysis which is one way of gaining greater benefit from inspections, by analysing results for trends and underlying causes. This supports the earlier comment that a Standard on active monitoring with criteria for establishing frequencies linked to hazard/risk and including inspection report analysis may yield a better return on resources invested in this activity.

Standards

170. Monitoring the use and application of Line Standards is a responsibility of Professional Heads/Company Experts. However, this is left to their discretion to discharge in an informal way. Professional Heads are also charged with the responsibility to monitor the fitness for purpose of Standards, but there is no formal system. A main source of information is the outcome of topic audits and Railway Group Safety Plan audits carried out by the Railtrack Line Compliance department.
171. **At Zone level it is sometimes difficult for a Zone to determine compliance with a goal based Standard which is broadly set.** It is also sometimes difficult for the Zone to determine when a formal application for non-compliance is needed. The Compliance Project should address this.

Control of TOCs

172. **Monitoring of TOCs by Zones is variable** in terms of the nature and frequency of checks. A new Standard for issue soon to the ZAM Manual seeks to introduce consistency.
173. **The audit process of checking TOC compliance with their RSC is weak in three areas:**

- audits identify non compliance but there is little comment on underlying causes;
 - reports contain only brief mention of the TOC's SMS;
 - the Zonal close-out action plans arising from audits is variable and sometimes weak.
174. **Zone close out of action from investigations, such as SPADs, is also variable.**
175. **Additionally, the suite of KPIs does not capture any aspect of TOC safety performance or Railtrack activities to monitor TOC compliance.**
176. **Perhaps more importantly monitoring information on TOC performance is not collected together to form a complete picture.** There is no single point of reference within Railtrack where all the information on the safety performance of a particular TOC is available.

MEASURING - REACTIVE MONITORING

Measuring - Reactive Monitoring: Strengths

Accident/Incident Investigation

177. Component 5 of the Railtrack SMS requires the investigation of accidents/incidents, reporting of investigation results and corrective action taken, the extent of investigation depending on the severity of the event.
178. There is a mandatory Group Standard dealing with accident investigation and formal inquiries. It sets procedures for dealing with those events which warrant formal investigation or formal inquiry by setting criteria for deciding:
- whether a formal investigation or formal inquiry is necessary;
 - the objectives of a formal investigation or formal inquiry.
179. Formal inquiries must be held for significant events such as cases of death or multiple serious injuries. A formal investigation is necessary when the cause of an accident:
- is not known and;
 - a formal inquiry is not being held.
180. The objective of formal investigation and formal inquiries, through consideration of the circumstances, is to:

- establish the full facts;
- determine the immediate and root cause(s);
- assess compliance with Railway Group Standards;
- question whether methods of working are safe;
- determine whether specific actions are necessary to avoid recurrence;
- determine whether changes are necessary to training, supervision, instruction, maintenance schedules, equipment used etc.;
- question whether there are underlying weaknesses, e.g. in the organisation, SMS and associated controls;
- enable prevention of recurrence.

181. It is necessary that formal investigation and formal inquiries pursue the detail required to establish and clearly understand the underlying cause(s).

182. The Group Standard also gives guidance on levels of management who should deal with formal inquiries and formal investigations in range of typical events. These include:

- actual loss, high potential injury events e.g. train collisions, derailment, collapse or damage to infrastructure;
- high potential injury events e.g. SPADs and signal irregularities;
- actual injury events e.g. injuries to employees and the public;
- actual (or potential) loss, high potential injury events e.g. trespass or vandalism.

183. The Standard concludes with extensive good advice on setting remits, conducting formal investigations and inquiries, and reporting. The emphasis is on co-ordinating effort in investigations.

184. Zones had a wide definition of accident/incident events and pursue a total loss control approach which also covered potential events and near misses. As an example, the range of events includes death, major injury, minor injury, high potential accidents and high potential incidents.

Accident/Incident Databases

185. Railtrack collects and stores a great deal of information on accidents and incidents on the rail network. The primary means of data capture is the

Safety Management Information System (SMIS). SMIS is a Railway Group resource which is operated and supported by S&SD. Its purpose is to enable all members of the Group to report and record accidents or safety related incidents to a central database. Examples of the types of events which are input to SMIS are injuries, SPADs, bridge bashes and derailments. Group members are required to input data to SMIS in a structured format to facilitate analysis. Outputs from SMIS are available to the Railway Group. The events recorded on SMIS are subject to investigation, the nature of which varies e.g. the response to a SPAD will depend on the category of SPAD and the history of the particular signal. In addition, one Zone had its own separate combined performance and safety system (COMPASS).

KPIs

186. The KPIs include a range of reactive measures including, amongst others, accidents, possession irregularities (i.e. where contractors working on the track have not conformed to Standards of safe working), SPADs and broken rails. It is interesting to note that although information on broken rails has been routinely recorded within Railtrack, and before it by BR for many years, it is only since 1998 that they have been included in the suite of corporate KPIs though they are clearly a key safety related item.

Urgent Defects

187. Railtrack operates a system for alerting Railway Group members to urgent safety related defects affecting rail vehicles, plant and machinery in accordance with a Railway Group Standard. This requires members of the Railway Group to notify Railtrack's National Control Centre (a real time facility for monitoring train movements on the network) of any urgent defects which might need to trigger checks, replacements or withdrawals of equipment which could suffer from a similar defect. The National Control Centre immediately informs Railway Group Members of the defect which they are required to acknowledge and then take any essential action. A daily log of incidents is also produced which is widely circulated within Railtrack, including to the Chief Executive. The log includes the time, date, place, minutes delay and narrative account of a wide range of incidents such as SPADs, accidents, trespass and vandalism, equipment failures etc.

Confidential Reporting

188. A system of confidential incident reporting (known as CIRAS) has been trialled in Scotland. This system will enable anyone within the Railway Group to report, anonymously, concerns and problems about rail safety. Discussion are taking place now within the Railway Group to roll out CIRAS nationwide.

Measuring - Reactive Monitoring Areas For Improvement

Accident/Incident Investigation

189. We have commented earlier on the scope and nature of the Group Standard of investigation. The Group Standard is concerned with matching the level of response e.g. formal inquiry with an independent chairman or less formal investigation team, to the type of event. This is appropriate, but **an important omission from the Standard is a definition of an investigation process which will establish underlying causes of failures which led to the accident.** If such a process was included in the Standard then it would provide a basis for a consistent and more effective approach to investigation. This would improve the quality of data in SMIS and it would provide a clearer basis for auditing this part of the SMS across Railtrack Zones and within the Railway Group.
190. **There is no Standard for investigation in Railtrack Line to support the Railway Group Standard.** The RTSC suggests that the nature of the investigation is driven more by severity of consequences rather than potential severity. Whether an incident is a near miss or results in a major injury is often a matter of chance. If inadequate attention is given to events which could have had serious consequences the chances of capturing important data about failures in the system will be lost. Learning from near misses is a cost effective way of identifying weaknesses and improving performance. Despite the corporate system weakness there are good systems within Zones which have apparently been driven by the use of RSRS rather than through the implementation of a consistent Standard.
191. **Although Zones' systems embodied some good practice, an examination of some investigation reports indicated that the root or underlying causes were not always being assiduously pursued.**
192. Examples include:
- two reports of trespass onto the track which did not mention line side fencing;
 - a trackside fatality where the panel concluded the work had been changed from a green to a red zone without adequate risk assessment (8 recommendations were made);
 - an electrocution where the root cause was stated to be the lack of a disciplined approach to the application of the working instruction by the persons involved (10 recommendations were made);
 - a derailment where the underlying cause described conditions giving rise to track buckle - but not probing the systems or behaviours which permitted this to arise (12 recommendations were made);

- a train striking a lifting machine was put down to poor communication (6 recommendations were made).

Accident/Investigation Databases

193. **Whilst a large volume and rich source of data on incidents and accidents is collected better use could be made of the data.** Data input to SMIS does not always contain information on the underlying causes of incidents. This, combined with the fact that retrieval of data from the system is not always straightforward, weakens the potential of the system to reveal patterns of underlying causation which could be a powerful guide to prioritising and directing future effort.

KPIs

194. **The reactive KPIs do not attempt to capture or present any form of information, however flawed, on incident causation.** They focus on investigations completed and accident rates.

AUDIT

Audit: Strengths

The Approach to Audit

195. Audit is used extensively by Railtrack to provide evidence that the RTSC, RSCs, Standards and procedures are being followed. The approach recognises that the full value of audit is only achieved in the close out and follow up of audit actions. Additionally audit is seen as a learning process so that the difficulties of achieving compliance are identified and fed back into improving safety management.
196. Auditing is performed by S&SD, A&SD and Zones. S&SD carry out audits of Railtrack compliance with the RTSC and also audit TOCs' compliance with their RSCs. A&SD audit Railtrack Line and contractors. Audits within Railtrack Line vary in depth, scope and style. The various forms include:
- RSRS audits;
 - specific RTSC audits based on specific protocols; and
 - technical and Standards' audits of Group and Line Standards. The approach involves in-house audit staff supported by in-house or external technical expertise. In some cases specialist audits have been carried out exclusively by external consultants. Audits of different types are sometimes combined to minimise the resource impact on audit targets.

197. Plans for audit in 1998/9 included an audit of all Zones against the RTSC - including major stations. This was carried out by A&SD. Also, in 1999, S&SD conducted its first audit of corporate compliance with the RTSC.
198. Audit methods include:
- methods for RSRS which are based on the structured approach of ISRS which has set methods for presenting results and writing reports;
 - specific protocols for one off audits such as the recent S&SD audit of corporate RSC compliance. In this case an ISO 9000 type non compliance reporting method was used;
 - Zonal variations to audit methods which were not explored in detail during this review.
199. S&SD have audit procedures which are incorporated into their ISO 9002 quality system procedures. A&SD have a separate audit procedures manual.
200. Audit reports are presented at key management meetings such as the SEHC, ExCo and Zone Executive meetings. Corrective actions and action plans are prepared in dialogue with the auditors and relevant staff. The safety staff within Zones and at HQ are usually involved in preparing action plans and corrective action reports (CARs) and in following up items to closure.
201. There is significant resource devoted to auditing activity and it was clear that the process had been effective at various levels in promoting good practice in safety management. The RSRS system has in particular, promoted good practice in safety management based on the sound principles of the ISRS system.
202. Proposals are in hand to develop the audit process into a comprehensive assurance based system. This will have 3 components:
- data collation;
 - internal management systems; and
 - contractor management systems.
203. Data collation will be used to build up an integrated audit database which together with other information will be used to co-ordinate all audits into a risk based audit plan with supporting resources to deliver it. This will include the whole range of business performance, quality, environmental and safety auditing.
204. The internal management systems component will operate a management system review process. This will involve a formal process of re-evaluation of

the need for and value of each key management system via a consultative committee approach. The aim will be to present evidence on the need and viability of a system and identify any needs for change. The aim is to secure involvement and management empowerment of necessary change.

205. The contractor management systems will look at reviewing all systems and approaches to the management of key contractors, TOCs and station operators.

Standards

206. Railway Group Standards are audited in two ways. Firstly, by an annual audit of a core of 20 Railway Group Standards as part of the RTSC audit. These may be augmented by other Standards as necessary. Secondly, by an audit of a specific Standard requested by a Technical Principal either prior to a review or to check compliance after publication. The Railway Group Standards Department take no active role in auditing; this is done by the Safety Management Systems Department of S&SD.
207. The absence of a systematic approach to auditing Railway Group Standards, their compliance and fitness for purpose, has been identified as a weakness and procedures have recently been introduced to rectify this.
208. The British Standards Institution undertake regular audits of the ISO 9002 Process Procedures in S&SD. Closure meetings are held and remedial actions are acted on via the S&SD Quality Systems Manager. Recent audits have had very positive outcomes.
209. Technical audits of Standards at the Zone are instigated by Professional Heads, managed by Railtrack Compliance Section and carried out by external auditors. The Professional Head initiates the audit, sets the technical content, gives guidance on the audit protocol and assesses the results.
210. Railtrack stated that the audit process could be improved and that there was an intention to improve the auditing process of Standards by considering Standards in a wider scenario e.g. inquiry reports, KPIs and RTSC. A reorganisation of the A&S Compliance Section is planned for April 2000 to instigate the improvement process.

Control of TOCs

211. Audit is used to measure TOC performance annually and is used as the primary means of monitoring. Additionally, the S&SD methods used to assess, accept, change, review and audit TOC RSCs and performance are independently audited and are registered to ISO 9002.

Audit: Areas For Improvement

212. The main concerns about the current auditing arrangements include:

- **audits by various parts of the organisation have not been well co-ordinated or targeted** resulting in overlap and a significant burden on parts of the organisation and contractors. Audit has not been used to best effect to focus on checking compliance with, and the development of, the key components of the SMS;
- the scale of auditing activity and the evidence that some **audit deficiencies have been identified by previous audits but have remained unresolved** indicates some weakness in day-to-day monitoring activity;
- a review of the reports of audits carried out over the last 2 years indicates that **audit action planning and action close out is often not swift or robust** and often led by professional safety management staff. This situation does not sit well with a stated policy objective of intolerance of non-compliance with safety issues;
- the variable style of audits, the absence of a single auditing manual and the absence of clear Standards for some aspects of the safety management system raise **concerns about the consistency of audit practice**;
- some audit reports, particularly those based on ISO 9000 style non-compliance reporting, are **not useful in helping auditees to improve**;
- there has been **little in the way of analysis of audit results to identify common failings and potential efficiencies in achieving compliance**. The best use of auditing intelligence to identify strengths and weaknesses in safety management methods has not been exploited.

213. Railtrack has recognised most of these weaknesses and in an ExCo paper proposals for improvement have been made. The forward strategy on audit is to be:

- risk based;
- business focused;
- with clearer agreed audit objectives;
- based on credible information and analysis; and

- resulting in clear, defined SMART action plans.
214. In addition work has commenced on analysing audit reports in an attempt to identify root causes so that learning and intelligence can be improved. This work is captured in an RSG paper dated 3 November 1999 entitled, "Root Cause Analysis of CARs raised during 1998 RSRS Audits".
215. The new proposed strategy is a good thoughtful approach but attention is also necessary to the following:
- developing clear Standards for key components of the SMS e.g. Standards establishing criteria for general planned and critical parts inspections, Standards and criteria for accident investigation, and consistent personal performance Standards for Zone Directors on good Zonal safety management practice;
 - establishing clear audit process methods for information collection and analysis. This would include guidance on sampling regimes and frameworks and structures for assessing the adequacy of arrangements;
 - improved pace and drive in prioritising and closing out of all audit recommendations and actions, ensuring that outstanding actions are consistently brought to line management attention and remain on the agendas of key management meetings until final close out;
 - less reliance on audit to check compliance.

Standards

216. **The reliance upon Technical Principals to initiate proposals for a change to Railway Group Standards based on audit findings is weak.** Auditor's recommendations can be ignored and there is no formal process to resolve this conflict. Within Railtrack Line, Professional Heads also have considerable discretion in how to respond to audit findings etc which may indicate a "problem" Standard. Professional Heads aim to review Standards within their portfolio routinely. However, no defined interval appeared to be set down. A more structured approach would be valuable.
217. **The relevant Railtrack Line Standard makes no reference to the requirement to review and audit the Standard setting process.** A more systematic approach would be beneficial.

Control of TOCs

218. **There has been little auditing activity covering the processes in Railtrack Line which relate to the control of access of TOCs to the infrastructure.**

REVIEW

Review: Strengths

219. The extensive range of data sources such as KPIs, safety intelligence reports and audits are used to compile year end reports by A&SD reporting on Line performance, and S&SD reporting on Railway Group performance. These reports contain a wealth of information relating objectives set in plans to measured levels of performance. The Railway Group report ranges widely over many aspects of rail safety and provides substantial narrative and quantitative information.
220. The Railtrack safety policy statement is reviewed annually by S&SD and it will be reviewed following the Paddington accident.
221. Evidence of review activity was found within Railtrack which covered a range of issues including safety performance. S&SD had recently started to risk rank TOCs using the intelligence available to them to prioritise their audit programme. They have also undertaken a review of their criteria for RSC acceptance and are aware that the criteria does not closely align with the audit protocol. There was some evidence that Zones were looking for examples of best practice for incorporation into the ZAM e.g. in preparing the new Standard for monitoring of TOCs' safety performance.
222. Various forms of internal and external benchmarking are undertaken. There is evidence of more comparison across the Zones and sharing of best practice e.g. on SPAD management. Safety performance is benchmarked against railway accident frequencies of other countries and this is reported in the Railway Group annual report. Some benchmarking of processes has been undertaken but this is an area where Railtrack wants to develop.
223. A&SD is aware of the importance of the review process and are assessing some key SMSs to see if they are fit for purpose. For example, they have reviewed their experience of audit and they are developing a new audit protocol which is a synthesis of the methods currently used. The protocol for annual audits will be based on elements of the safety case and the RSRS methodology, with an RSRS audit undertaken every 3 years.
224. Railtrack has a policy of shifting the emphasis on safety from compliance towards assurance. This is a positive move which is aimed at ensuring that the company is better able to demonstrate that it is in control of safety across all its activities.
225. The Railway Group Standards Code is currently being reviewed in full consultation with Railway Group members.

Review: Areas For Improvement

226. **The major challenge which faces Railtrack is to turn the wealth of information which it collects into meaningful intelligence on major areas of strengths and weaknesses.** In the absence of intelligence on underlying causation the organisation will be over reliant on individual judgement to guide its future direction. The key to improvement will be putting in place processes and systems which will facilitate analysis and reveal common problems. Railtrack is aware of this and is moving in this direction. For example, at the moment there is no method of providing an overall picture of underlying causes arising from accident and incident investigations and audits. A database of audits is being created which, amongst other things, will help identify trends in audit findings. A detailed structured analysis of 715 possession irregularities has just been completed to try to identify underlying causes of this particular problem. This analytical activity is very useful but it needs to be supported by comprehensive processes which will systematically identify underlying weaknesses.
227. **Benchmarking against comparable organisations needs to be developed further.** In particular, benchmarking key SMS processes such as the documentation of the system, inspection, investigation and auditing will expose Railtrack to alternative approaches to managing safety and provide a valuable opportunity to learn from others' experience. It will also help the organisation in judging whether it is moving towards its aspiration to be world class.
228. **Although individual Standards are reviewed there is no systematic review of the Standards making process to assess whether it is effective in achieving its overall aim of safe inter-working.**
229. **Railtrack do not undertake a formal review of the overall safety performance of TOCs against their accepted RSCs.** The information gathering and analysis systems used in the organisation have not been designed to provide the data that would be needed to make decisions on TOCs' overall safety performance. The Railway (Safety Case) Regulations require RCSs to be reviewed every 3 years but re-acceptance of the case by Railtrack is not required. Notification that a review has been done is sent by the TOC to Railtrack. But Railtrack is not required, and does not have the opportunity, to reflect on the TOC's compliance with its RSC or its safety record. This seriously weakens Railtrack's ability to exercise control over the TOCs.

APPENDIX 1 STANDARDS SETTING

AUDIT SCOPE

Key issue:

Are there effective management arrangements within Railtrack for the setting of Standards to ensure safety on the infrastructure?

1. This Appendix describes the management arrangements within Railtrack for the setting of Standards for the provision and maintenance of safety on the infrastructure. The setting of Standards in relation to Train Operating Companies was not explored during this management review.
2. The following sections describe: the process by which Standards are set at three levels (Railway Group, Railtrack Line, and Railtrack Zone); the interrelationships between these levels; and the strengths and weaknesses identified.
3. The information presented here is based upon interviews held with personnel within Railtrack's Safety and Standards Directorate (S&SD), Railtrack Line Headquarters, and Railtrack East Anglia Zone Headquarters, together with an assessment of relevant documents.

SUMMARY OF PRINCIPAL FINDINGS

4. **The following were the principal findings:**
 - **staff involved with setting Standards were competent and the resources available for Standard setting appeared adequate for the current work load;**
 - **there were well documented procedures that were generally understood and followed. The process of Standard setting is inclusive of relevant stakeholders. This consultation process ensures more appropriate Standards are produced and conflicts are kept to a minimum;**
 - **there was no evidence of commercial influences outweighing safety. However, it was not transparent how the Standard setting process aims to deliver 'so far as is reasonably practicable';**
 - **there was no documented Railtrack policy for the strategic direction of the Standard setting process;**

- **the current variety of documentation considered to be a 'Standard' has the potential for confusion and can trivialise important Standards;**
- **there were no safety management systems Standards;**
- **there is little review of the effectiveness of the Standard setting process.**

DESCRIPTION OF THE STANDARD SETTING PROCESS

5. A plethora of Standards is set by Railtrack in relation to safety.
6. The distinguishing feature of Railway Group Standards (RGS) is that they are written by a commercially independent arm of Railtrack, S&SD. RGSs are mandatory on all Railway Group Members, including Railtrack's commercial arm, Railtrack Line (RT Line), unless a non-compliance or derogation has been granted. The aim of RGSs is to ensure system safety and safe interworking. In general they specify what must be achieved rather than how it should be done i.e. they are goal based.
7. S&SD also publish Railtrack Approved Codes of Practice, and Guidance Notes which are not mandatory. These documents provide additional information on achieving levels of control required by RGSs.
8. RGSs are divided into eight categories covering topics as diverse as policy management, track and structures, operational health and safety, infrastructure activities, signaling, plant and special operations e.g. safety-critical work and the carriage of dangerous goods.
9. RT Line implement the requirements of RGSs either directly, or as is increasingly so, by the production of subordinate Line Standards. This is undertaken by the Corporate Standards Department of RT Line. In addition, RT Line produce their own Line Standards covering issues that apply to specific areas and not the whole Railway Group. These Standards are not always mandatory.
10. Railtrack Line Standards are divided into five categories: track and structures; operation and contract management; plant; telecommunications and signalling; procurement and Line safety and environment. The different types of RT Line Standards include codes of practice, procedures, specifications, guidance and working instructions.
11. Each of Railtrack Line's seven Zones must also meet the requirements of all RGSs and those Line Standards that are relevant to their activity. In most cases Zones will apply Group/Line Standards directly. However, they can also

implement Group and Line requirements through Zone specific procedures and supplementary Standards as necessary.

12. The above links are illustrated in the Annex to this Appendix, which also shows some of the key procedures and influences on the Standard setting process.

POLICY

Key issue:

Is there an effective safety policy for setting Standards, balancing safety and commercial interests, and an effective management system to make it work?

Railtrack

13. Everyone interviewed in Railtrack accepted the importance of setting and complying with Standards but there was no articulated or documented Railtrack policy on how these objectives were to be achieved.
14. S&SD and Railtrack Line have independent high level documentation on the Standard setting process. These are *The Railway Group Standards Code* for S&SD and *Railtrack Line Policy On Standards (RT/LS/P/001)* for Railtrack Line. These are predominantly procedural documents that do not provide policy guidelines in terms of setting objectives for Standard setting. All interviewees believed these to be policy documents.
15. There is no strategic direction to the process of Standard setting. This is covered in more detail in the planning and implementing section of this report.
16. It is documented in the *Code* and *RT/LS/P/001* that safety and practical/commercial interests have to be considered when setting Standards. There was no evidence of commercial influences outweighing safety considerations. Railtrack generally believe that improvements in performance will improve safety. But, it was not transparent as to whether the process was designed to achieve 'so far as is reasonably practicable'.
17. There is an effective management system that ensures the Standard setting process works in each of the constituent parts of Railtrack. However the process does not always focus on the issues for reducing risk.

Findings

18. **There is no documented Railtrack policy for the strategic direction of the Standard setting process.**

19. However, should Railtrack create a strategic policy there is a framework available to articulate and document it. A clear policy could easily be implemented through the well documented procedures.

Safety & Standards Directorate

20. Railtrack is required, by condition 3 of its Network Licence, to regulate a system of RGSs by means of a published Code, *the Railway Group Standards Code*. The purpose of this Code is set out in the Licence Condition at paragraph 3 (reproduced at Appendix 5). It is the responsibility of S&SD to manage the production and upkeep of these mandatory Standards in accordance with the Code.
21. The mechanism (or process) for RGSs is set out in *The Railway Group Standards Code*. Within S&SD, the Standards setting process is managed by the Railway Group Standards Department with advice from discipline experts known as Technical Principals, Technical Services Department, and an audit mechanism provided by the Safety Management Systems Department. A *Management Systems Manual* (QM01) supported by a number of Process Procedures (PPs) describe the processes to be followed. Consensus is obtained through a comprehensive consultation process within the Railway Group and expert committees.
22. Although these documents are perceived to fulfil the requirements of a policy they do not set down the objectives of the process. There appears to be commitment to continuous improvement, or at least to maintain safety at present levels, but this is not clearly documented.
23. It is worthwhile recording that the process for the production of Railway Group Standards has undergone significant change since C-Change in 1998. Prior to this the suite of BR Group Standards dating from 1992 were produced to a very different remit under the direction of four technical disciplines. S&SD recognised that production of Group Standards by discrete technical Units lead to inconsistencies in content, style and detail. C-Change has led to the current management arrangements in S&SD as described above. In addition, it has also resulted in the following elements being introduced into the Standard setting process (though the full development and benefit of these elements has yet to be attained):
- a Controls Database to map and record, and then manage, the mandatory requirements for managing risks (“the control measures”) stipulated within RGSs. This database will also help to preserve corporate knowledge on the development of control measures;
 - the use of risk matrices to aid prioritisation in the RGS programme; and
 - the development of more ‘user focused’ RGSs.

Findings

24. A clear procedure on the authorisation, amendment and abolition (the setting) of RGSs is set out in *The Code*. This document is authored and owned by S&SD.
25. All interviewees had a clear understanding of the corporate interpretation of *The Code* i.e. system safety and safe inter-working, and of implementing its requirements.
26. S&SD are committed to the management philosophy of ISO9002; this ensures transparency of their Standard setting process.
27. The direction on Standard setting is influenced by a number of factors, including the Code. However, here is no coherent statement of policy on Standard setting per se. The role of the Railway Industry Safety Strategy Committee (RISSC) in identifying strategic issues in accordance with its terms of reference as outlined in *The Code* was not confirmed during the review.
28. *The Code* is not a policy, but is loosely perceived by interviewees as being policy.

Railtrack Line

29. RT Line is required to implement Railway Group Standards under the terms of the *Railtrack Railway Safety Case (RTRSC)*. The RT Line document *RT/LS/P/001 Railtrack Line Policy on Standards* mirrors the Standards setting process in S&SD. In addition to converting RGSs into RT Line Standards, RT Line also creates their own stand-alone RT Line Standards
30. A Line Standard as defined in para 6.1 of *RT/LS/P/001* covers more than safety documentation. For example it included instructions, technical Standards, inter-operability requirements, codes, guidelines, administrative instructions and work procedures. To some extent this is a legacy from British Rail. The effect of this is to weaken the perceived role of Standards in maintaining safety in respect of the infrastructure.
31. RT Line management is aware of the weakness in the RT Line Standards procedure caused by using the word Standard as a catch all for many different types of instruction. Project Release, which is scheduled for completion in 2003, is expected to address this issue (see section on Planning/Implementing).

Findings

32. **RT/LS/P/001 mirrors the S&SD RGS process. It sets out clear roles and responsibilities in the process. However it is mainly a procedural document.**
33. **In addition, RT/LS/P/001 also sets out the requirements for the monitoring of compliance with the Standards and their fitness for purpose.**
34. **The term Standard currently refers to a wide variety of documents. This can cause confusion and can trivialise the value of important Standards. RT Line have acknowledged this and expect Project Release to address the issues.**

East Anglia Zone

35. The 'policy' for the setting of Standards within East Anglia Zone is contained within the Zone's Safety Management System manual. This contains the procedures by which RGSs and Railtrack Line Standards appropriate to the Zone are implemented. The perception within the Zone is that the 'policy' aims to secure continuous improvement, ensure that legal obligations are met, that compliance with Standards is achieved and that those requirements are applied in a consistent, monitorable and auditable manner across the Zone.
36. The Zone follow the procedures within *RT/LS/P/001*. Elements of these procedures are supplemented by the Zone specific procedure ZP 2.1.6 *Management Process for Railway Group, Railtrack Line and Zone Specific Standards*.

Finding

37. **There are well documented procedures that are followed. However these are not a true documented policy.**

ORGANISATION - CONTROL

Key issue:

Is there an adequate management structure to reconcile potential conflicts and tensions in implementing the policy for setting Standards?

Railtrack

38. Responsibilities for the Standard setting process are detailed in job descriptions, safety responsibility statements and for some, in the *Railtrack*

Safety Case. Performance against these is reviewed during annual appraisals.

39. The responsibilities for Standard setting generally relate to the Standard setting process itself, but do not relate to compliance with a Standard. This issue is left to Safety and Management Systems Department in S&SD and compliance sections found elsewhere in the organisational hierarchy. The management arrangements by which Safety and Management Systems Department feed back into the Standard setting process are set down in S&SD Process Procedures.
40. The mechanism for resolving conflicts and tensions are controlled through the consultation process (see section on co-operation) and the process for non-compliances and derogations. The *Code* and its underpinning Standards were thorough and detailed and helped with transparency of the processes. Ultimate appeal to the Rail Regulator is an option, but has not been used to date.

Findings

41. **Responsibilities are laid down.**
42. **Conflicts are reduced through consultation.**
43. **The procedures are transparent.**
44. **Some interviewees felt the length of time taken to change a Standard could create a problem with compliance e.g. a change required to a RGS and its subordinate Line Standard could take up to two years.**

Safety & Standards Directorate

45. S&SD, RGS Department manages the RGS system. The control structure for RGSs is detailed in: *The Code*; GA/RT6001 *Railway Group Standards Change Procedures*; GA/RT6002 *Group Standards Authorised Before April 1994 - Translation of Roles and Terminology*; GA/RT6004 *Temporary Non Compliance with Railway Group Standards*; GA/RT6005 *Subject Committees*; and GA/RT6006 *Derogation's from Railway Group Standards*. These detail the responsibilities and relationships across the whole of the Railway Group. The management arrangements in place to undertake this role are detailed in the S&SD Management Systems Manual and its Process Procedures.
46. S&SD, RGS Department are in the process of developing and implementing a Controls Database which will capture all risk control measures contained within RGSs. This database should enable the implications of a change in the risk control measures in one RGS to be mapped against effects on other RGSs.

47. S&SD, RGS Department do not control how a RGS is implemented or how compliance is ensured. For example, it is not known which RT Line Standards implement which RGS. This is one function of S&SD Safety Management Systems Department who undertake this role during audits. Ad-hoc information is requested from SMS audits by Technical Principals to inform Standard changes; however this information is not used to inform the whole process i.e. it was not clear how this information was used in risk assessment.

Findings

48. **Responsibilities for Standard setting are laid down.**
49. **S&SD actively manage the RGS process and the Standards Code.**
50. **Transparent procedures are in place governing the Standard setting process.**
51. **Development of the Controls Database should ensure the mapping of risk control measures and help with the cross referencing of Standards.**
52. **Conflict is kept to a minimum by the consultation and non-compliance processes.**
53. **S&SD Railway Group Standards Department has no authority to check on implementation and compliance with RGSs by Railway Group members (undertaken by S&SD SMS Department). Consequently, intelligence on Standards from monitoring activities may not always feed back into the Standard setting process.**

Railtrack Line

54. The RT Line procedure for Standard setting is *RT/LS/P/001 Railtrack Line Policy on Standards*. This sets out the principal procedures and responsibilities for the creation, revision or deletion of RT Line Standards and for responding to RGSs. This process is managed by the Corporate Standards Department of the RT Line Assurance and Safety Directorate. Corporate Standards Department is supported by the Professional Heads (from within the Directorate of Asset Management) from each technical discipline and other professional areas. Support for monitoring and audit is provided by the Compliance Department also within the Assurance and Safety Directorate.

Findings

55. **There is a clear management structure, with roles and responsibilities outlined in RT/LS/P/001.**

- 56. **Corporate Standards Department act as a single point of contact in relation to Group and Line Standards.**
- 57. **Professional Heads of technical disciplines act as nominal owners of Group and Line Standards providing relevant technical judgements.**
- 58. **Potential conflicts are resolved through the involvement of stakeholders in consultation.**
- 59. **The process, RT/LS/P/001 is very detailed and structured. It is thought to be very bureaucratic and some interviewees stated that Zones have not always fully understood their responsibilities. Corporate Standards Dept have no authority to check on compliance with Line Standards. Information on compliance is not always received and acted upon to influence the Standard setting process.**

East Anglia Zone

- 60. The organisational arrangements within this Zone for Standard setting relate to *RT/LS/P001*. Only certain key elements have been directly translated into a Zone Standard, ZP2.1.6. *Management Process for Railway Group, Railtrack Line and Zone Specific Standards*. These are ownership, compliance, contract allocation and briefing. ZP2.1.6 allocates Railway Group and Railtrack Line Standards to nominated Standards owners, normally the Zone Professional Heads/Company Experts.
- 61. The introduction next year of a Zone Assurance Manual (ZAM) to replace the East Anglia Zone's Safety Management System will improve control as the procedures contained therein will apply across all seven Zones thereby introducing consistency across the organisation. The procedures will be authorised by the Railtrack Safety Group which will comprise the Assurance and Safety Managers at Zone and headquarters and be chaired by HQ Head of Safety and Risk Management. Supplementary Zonal procedures will be produced within each Zone to accommodate any local factors; in the case of East Anglia Zone, these local procedures will be produced by the Safety Review Group.
- 62. Conflict is resolved through the consultation processes described before

Findings

- 63. **There will be a more consistent approach across the seven Zones when the ZAM is implemented.**
- 64. **Through the consultation process Zones are able to challenge and influence change to Group and Line Standards by approaching S&SD Corporate Standards Department.**

65. **Roles and responsibilities on Standards within the Zone have not always been clearly defined. However, these issues are being addressed through new procedures e.g. ZP2.1.6, and posts which should provide focal points on Standards management issues.**

ORGANISING - COMPETENCE

Key issue:

Are there systems and arrangements to secure the competence of key players in the decision making process for Standard setting?

Railtrack

66. Competence requirements have been laid down in Job Descriptions, Safety Responsibility Statements, and for Professional Heads, in the *Railtrack Railway Safety Case*. These tended to be general competencies rather than detailed requirements for Standard setting.
67. All those interviewed appeared competent to fulfil their roles in the Standard setting processes. Competence is ensured through recruitment and training. Training needs are identified during appraisals carried out by line management. No resource constraints were identified in relation to training.
68. There is little reference in the Standards setting process to the competence of those who need to be consulted. However Technical Principals and Professional Heads can influence this process by including their own expert consultees in the process.
69. In general, Standards do not detail the competencies of those who need to implement them or the end user. Competence requirements are specified where particular technical or managerial requirements are deemed to be necessary e.g. non-destructive testing and safety critical roles.

Findings

70. **Competence requirements (mostly general) are set.**
71. **All staff appeared competent. This was ensured through selection and training. There was also a willingness to purchase any additional expertise needed.**
72. **There is little reference to competence of consultees.**

ORGANISING - CO-OPERATION

Key issue:

Are there adequate and appropriate arrangement to secure the trust, participation and involvement of all relevant parties both within Railtrack and TOC's and other stakeholders and mechanisms for resolving conflict?

Railtrack

73. Co-operation and communication processes are closely linked. The Railway Group structure encourages co-operation on safety issues through consultation and communication procedures (see influences illustrated in the Annex). This ensures a pooling of knowledge and experience at all levels of the organisation.
74. There appears to be little co-operation and consultation taking place with those who will actually undertake the work to which the Standard relates, including safety representatives.
75. The consultation process and non-compliance procedures enable differences to be resolved thereby minimising conflict. Appeal procedures are in place, but are rarely used.
76. In the time available it was only possible to see one TOC. A fuller appraisal of how the Standard setting process operates in respect of the Railway Group would require consultation across Group members.

Findings

77. **The Railway Group framework encourages co-operation through consultation. This extends to a wider audience as necessary.**
78. **The Railway Group ensures pooling of knowledge and experience.**
79. **Co-operation reduces conflict in the Standard setting process**
80. **There was little consultation with those undertaking the work including safety representatives.**

Safety & Standards Directorate

81. S&SD supports the consultation process within the Railway Group, as stipulated in the Code, by acting as its facilitator. S&SD's Railway Group Standards Department maintain an up-to date register of agreed points of contact for each Railway Group Member (listed in the *Railtrack Catalogue of*

Railway Group Standards). This register is used as the formal means of communication with consultees, via nominated document controllers. There is no direction on who or what type of employees should be consulted by the Railway Group Member.

82. The consultation process is not limited to the consultee register. S&SD frequently consults on a wider basis as it considers necessary, for example manufacturers, suppliers and contractors are often consulted. Technical Principals have informal networks of technical experts which are not generally recorded. This informal contact could be lost if the job holder leaves the organisation as it draws heavily on the corporate memory.
83. S&SD advises consultees of the outcome of their comments i.e. whether they have been included in the Standard or rejected and reasons why.
84. The widespread consultation is followed by a further opportunity for Railway Group Members to co-operate and consult on a Railway Group Standard. This is through the Subject Committees. These comprise of experts drawn from the Group Membership and chaired by a Technical Principal from S&SD. This pooling of knowledge and experience ensures that conflicts in the consultation process are given considered opinion and are not open to bias.
85. Unresolved conflicts can be referred through a series of appeal procedures starting at the Subject Committees and ending at the Rail Regulator (although the latter has never occurred).

Findings

86. **There are consultation processes which involve Railway Group Members, and others at the discretion of S&SD. This keeps conflict to a minimum. However there are procedure for dealing with unresolved conflicts.**
87. **There is no requirement for consultees to reply.**
88. **The timescales for the consultation process is generally fixed and does not take into account the risk or complexity of the issues involved or the number of Standards that have to be commented upon at any one time.**

Railtrack Line

89. RT Line has similar consultation processes to S&SD when creating Line Standards. They also support the Railway Group Standard consultation process by participation in consultation and membership of Subject Committees. Consultation on RGS and RTLS does not take into account the adequacy of consultation arrangements with the Zone or others.
90. The Corporate Standards Department act as a focal point for the dissemination of documents and the collation of responses via a Process

Manager within Railtrack Line. Drafting groups can include representatives from Zones and contractors.

91. There is a Standards Star Chamber, comprising of RT Line and Zone representatives, which was set up to review and make decisions on proposals for the development of new or changed Line Standards.

Findings

92. **Consultation takes place on RGSs and RTLs and is not limited to Zones; contractors can be included.**
93. **The Standards Star Chamber comprises of a mix of Standard setters and Standard implementors and provides a practical sense check on Standards i.e. can the Standard work, be implemented and is the level of prescription right.**
94. **Documents are sent, in the main, to documents controllers. There is then no subsequent check on the consultation process. However, all consultees are required to respond to the consultation process.**
95. **The consultation period is for as minimum of 28 days but there is provision for this to be extended when deemed appropriate.**

East Anglia Zone

96. This Zone supports the consultation process by participating in the RT Line Standards process, commenting on RGS (via RT HQ) and through membership of Subject Committees and their sub-committees.
97. There is a requirement to respond on consultation in the East Anglia Zone (including nil returns and the identification of who is best placed to comment).
98. There is inter-zonal co-operation which takes place on an ad-hoc basis.

Findings

99. **The Zone participates in the consultation process.**
100. **There is a nil return policy in the Zone on consultation.**

ORGANISING - COMMUNICATION

Key issue:

Are there effective arrangement to secure adequate information flows between all stakeholders within the Standard setting process?

Railtrack

101. The communications channels for Standard setting is well documented as referred to in previous sections (see also influences in the Annex). Various information on Standard flows within, from and to Railtrack plc. Although some of these are formalised, others are undertaken only on an ad-hoc basis i.e. Technical Principals and Professional Heads will consult with known experts both within and outside of the Railway Group. Reactive information e.g. Inquiry Report and accident data are used to inform Standards' change however the use of proactive information such as implementation and compliance levels is not always used as a trigger to inform the change process.

Findings

102. **There are good communication flows between all stakeholders.**
103. **Briefing notes are issued with Standards which outline the main changes and implications.**

Safety & Standards Directorate

104. The S&SD's Railway Group Standards Department have a register of consultees.
105. S&SD issue revised Standards to all Railway Group Members, and others as necessary, on a bi-monthly basis. At the same time they issue the *Railway Catalogue of Railway Group Standards* which lists all current Standards and the membership list of the Railway Group and Subject Committees. Additional copies of Standards and a CD-Rom of all current Standards are available at an extra cost.
106. New or revised Standards are issued with a briefing note detailing the Standard changes and their implications.
107. Information on Standard setting and change flows from and to S&SD via the consultation process (see section on co-operation).

108. Technical Principals receive and seek out on an ad-hoc basis sources of information for example, they initiate technical audits prior to the review of a Standard or following the issue of a new or changed Standard and consult with experts within the Zones and outside Railtrack to help influence their decisions on the changes needed.
109. S&SD maintain a Controls Database on proposals for any authorised non-compliances with RGSs. Outputs from the Database are issued on an ad-hoc basis to Technical Principals for potential use in Standards review and to S&SD SMS Department to assist auditing of Group Members.
110. Information flows within Railtrack appear to be left to the discretion of the Technical Heads.
111. Cross-referencing between Group Standards is not common place. For example, the new Standard .GM/RT2455 "*Freight Vehicle In-Service Inspection*" , did not refer to other Group Standards which needed to be enacted to ensure an adequate inspection regime. There is also little referencing in Standards to legislative requirements.

Findings

112. **Information on Standards is regularly disseminated by S&SD to the Railway Group, and others as necessary.**
113. **They maintain a database of non-compliance, the outputs being used by Technical Principals reactively to influence changes to Standards.**

Railtrack Line

114. Similar procedures to communicate information on Standards, strengths and weaknesses occur at RT Line as in the rest of Railtrack . For example, information on the implementation of Standards and technical developments is gathered by Professional Heads as part of their day to day meetings with the Zone and other experts.
115. Similarly RT Line has a database of authorised non-compliance with Standards. There is a second database which allows Zones to communicate with Professional Heads about compliance problems

Finding

116. **Corporate Standards publish a catalogue of Line Standards and a CD ROM.**

East Anglia Zone

117. Similar procedures to those already described for communicating information on Standards, strengths and weaknesses occur at this Zone.

Finding

118. **The Zone produces a catalogue of all Standards that apply to the Zone and their nominal owners.**

PLANNING

Key issue:

Are there adequate mechanisms for making appropriate plans for setting Standards and is the Standard setting process comprehensive and systematic, balancing the needs of all interested parties?

Railtrack

119. There are approximately 600 Railway Group Standards and over 400 Line Standards and many Zone procedures. Within the time scale of this review it was not possible to make a judgement on whether Standards had been set in appropriate areas of risk. Only the process and rationale for setting Standards was examined.
120. The majority of Standards were inherited in one form or another from British Rail (the '9000' Standards). S&SD and RT Line are rationalising the process of Standard setting. An overall strategy and programme for completing this work is still under development. The current practice of reviewing Standards is reactively led; professional experts and stakeholders suggest which Standards should be changed rather than a systematic identification of those Standards which offer the most significant improvement to safety.
121. Railtrack has no overarching plan for the progression and the appropriateness of the Standard setting process. However each of the three areas visited, S&SD, RT Line and East Anglia Zone have their own plans which are outlined below. These plans impinge on each other because of the Standard cascade process.
122. There was little evidence that risk assessments were being used systematically in the Standard setting process. Assessment of risks appeared to be left to the professional judgement and experience of Technical Principals and Professional Heads, with little reference to formal risk assessment tools/procedures. However within the *Railtrack Railway Safety Case* there was substantial reference to risk assessment but it was difficult to determine the level of safety performance being aimed for or how consistency in the process was achieved and maintained.

123. Safety Justifications are produced which demonstrate the need for a RGS. However, it was not clear how this ensured the controls reduced the risk to “as low as is reasonably practicable”.

Findings

124. **The strategic direction to the planning of the Standard setting process is still under development. However the potential exists to adopt a strategic approach as there are adequate resources, well documented procedures, and an inclusive process.**
125. **The procedures allow for stakeholders, through Subject Committees, the Standards Star Chamber and the consultation process to be involved in more proactive issues such as influencing the strategic plan. This does not happen at present.**
126. **It was not transparent how the Standard setting process aims to deliver safety to achieve the legal minimum or “so far as is reasonably practicable”.**

Safety & Standards Directorate

127. There is a five year plan to review all RGSs. Factors influencing the timetableing of the RGS review include the assessment of a proposal for change, the controls development programme and non-compliance statistics.
128. In addition to this plan, a Standards Unit Programme (SUP) is published. This captures the current workload of Standard changes and highlights all the stages and time scales for the Standard setting process. Once a Standard has been identified for change its priority within the programme is influenced by information provided by the Safety Strategy and Planning Department and the Industrial Safety Liaison Department. Monthly Standard Management Executive (SME) meetings are held which review the progression of this programme.
129. Each Standard is issued to a Project Manager who is responsible for progressing the changes. Their work is prioritised by the SUP and monitored by the Controller of Railway Group Standards and during the SME meeting. New and revised Group Standards are issued bimonthly. Each Standard is then issued to the relevant Technical Principal as the nominal owner.

Findings

130. **There is a 5-year plan to review all current RGSs.**

131. **The publication of the SUP ensures Railway Group members are aware of the current plans for change.**
132. **Resources appear to be adequate.**
133. **Links between Standards and the Railway Group Plan are not obvious, for example, Group Standard, *GC/RT/5201 Lineside Security*, and the aim to reduce trespass and vandalism did not appear to be linked.**
134. **There is no mention of the need to plan for change in the Standard setting process within *'The Railway Group Standards Code'*.**

Railtrack Line

135. Railtrack Line does not have a similar five year plan but they do intend to make changes to the Standard setting process. They recognise that too many documents are categorised as Standards. This causes confusion and difficulty in ensuring priorities amongst those that have to implement the Standards. The document restructuring initiative - Project Release aims to categorise all documents into three areas by 2003. The three categories are:
 - Line Standards - technical and safety;
 - A Company Manual - containing all business processes;
 - A Management Manual - outlining who does what, where, authorities etc.

It was unclear exactly how this would influence the process in the future.

136. In the meantime changes to a RGS can influence the immediate change(s) in the corresponding subordinate Line Standard(s). After 31 December 1999 it is intended that there will be at least one Line Standard to enact a Group Standard, (a Group Standard will no longer be issued directly to the Zones). This, linked with the cross referencing of Line Standards, should result in a stronger control of Line Standards, but this will also increase the total number of Standards.
137. The process of Standard setting is very similar to S&SD with Project Managers and Professional Heads who are responsible in many cases for preparing the business case and risk analysis required by the Standard setting process.

Findings

138. **There is no immediate strategic plan for Standard setting. Project Release is not expected to deliver until 2003 thus there remains a short to medium term concern about the variety of Standard documentation.**

139. **Corporate Standards manage the immediate change to RT Line Standards from Railway Group Standards. They want to mirror the goal setting approach in RGS.**
140. **After 31 December 1999 there will be at least one Line Standard to enact a Group Standard.**
141. **There are no Standards on safety management systems.**

East Anglia Zone

142. This Zone plans to replace its Safety Management System from 1 January 2000 with a Zone Assurance Manual produced by the Assurance & Safety Dept at Railtrack Line HQ. This will ensure consistency with other Zones. This manual will contain procedures, approved by the Railway Safety Group, to supplement Line Standards where necessary.
143. Zone participation in the stakeholder review process (outlined in *RT/LS/P/001*) provides an opportunity to plan for forthcoming Standards.
144. Timescales for the implementation of Standards dictate priorities. In cases where conflicting priorities arise, professional judgement determines the implementation timing. Funding was not seen as an obstacle to implementing Standards.

Finding

145. There will be a single Zone Assurance Manual which will help to ensure consistency in the application of Standards across the seven Zones.

MEASURING

Key issue:

Is there adequate and sufficient measurement of the planning and Standards setting process to ensure satisfactory outcomes at all appropriate stages in the process ?

Railtrack

146. Within each level, those departments charged with the responsibility for the management of Standards, appear to take adequate action to check compliance with the Standards setting procedures. But the adequacy and appropriateness of the intended outcome of the Standard is not checked. Equally important, there is no overall check on the scope of the current suite of Standards to ensure key areas of risk are controlled or to identify gaps and omissions.

147. Professional experts at each level acquire incident data, inquiry reports, audit findings etc. which they use to monitor their allocated Standards but this information does not appear to inform any formal risk assessment procedure.

Findings

148. **The procedures to progress Standards are verified at all stages.**
149. **It is of concern that the appropriateness of the Standards set are not formally measured. The process relies almost entirely on the networking and expertise of the individual experts.**

Safety and Standards Directorate

150. The Railway Group Standards Department does not monitor compliance of RGSs by Railway Group Members. Monitoring is carried out by other S&SD departments, in particular, Safety Management Systems Department. This only assures compliance with the Standard as written and may not be a true measure of the control of the risk.
151. Target dates for the implementation of Railway Group Standards are contained within the Standards themselves and apply across all Railway Group members. In general, Standards have a two month implementation period.

Findings

152. **The workload and performance of Standards Project Managers and the Standards Unit Programme are monitored, as a line management responsibility by the Controller of Railway Group Standards and during the SME meetings.**
153. **The Process Procedures by which the Railway Group Standards Department develop new or revised Standards contains staged checks, which are documented.**
154. **Technical Principals receive directly a range of (reactive) information e.g. audit reports, incident reports, Inquiry Reports, conference and research papers etc. from which to make judgements about the appropriateness of Standards identified for change.**
155. **There are effective measurements of the Standard setting process however it was not clear how this ensured the effective control of risk i.e. how does ensuring each stage of the process has been completed ensure all risks have been addressed.**
156. **The timescales for the implementation process are generally fixed.**

Railtrack Line

157. The Head of Corporate Standards has the responsibility for the development and publication of Railtrack Line Standards, and is responsible for managing Railtrack Line's input into the development of RGSs. Corporate Standards act as the focal point for proposals for changes to Standards received from within Railtrack Line.
158. The management arrangements in RT/LS/P/001 do not set out explicitly the arrangements for the monitoring of the Standards setting process within Railtrack Line; indeed it was reported that no measure or review of the fitness for purpose of the whole process had been carried out. RT/LS/P/001 focuses on the implementation of and compliance with these Standards but Corporate Standards take no active role in these activities. They are considered a line management function and are devolved to Railtrack Directors and Professional Heads/Company Experts within Railtrack Line.

Findings

159. **The procedures within Corporate Standards for progressing Standards contain staged checks to verify all stages have been completed.**
160. **The Professional Heads receive directly a range of (reactive) information e.g. audit reports, incident reports, Inquiry Reports, conference and research papers etc. from which they make decisions on the change to Standards.**
161. **Monitoring the use and application of Standards is a responsibility of Professional Heads/Company Experts (RT/LS/P/001 refers); however, this is left to their discretion to discharge in an informal way.**
162. **Professional Heads are also charged with the responsibility to monitor the 'fitness for purpose' of Standards. There is no formal protocol for monitoring (or reviewing) Standards. A main source of information is the outcome of topic audits and Railway Group Safety Plan audits carried out by the Railtrack Line Compliance department.**

East Anglia Zone

163. Within *Railtrack's Railway Safety Case, Volume 2* there are prime safety responsibilities on the Zone Director to, amongst others, "manage contractors by safety monitoring and audit to ensure maintenance of the infrastructure is carried out in accordance with Railtrack's safety Standards". An additional responsibility is "to ensure that the Zone operates in compliance with Railtrack's Railway Safety Case".

164. ZP2.1.6 sets out the Zone's arrangements for the management of mandatory Standards; in particular, it delegates the Zone Director's responsibility for managing compliance with Standards to nominated Standards owners (typically the Zone's Professional Heads/Company Experts).
165. The Zone's Infrastructure Contracts Manager (ICM) monitors implementation of Group Standards and/or Railtrack Line Standards by contractors (which are mandated on contractors through contract agreements).
166. As nominated Standard owners, Professional Heads at Zone level are responsible for checking compliance with Standards in their portfolio. This is achieved by end-product checks (EPCs) and management system checks. Findings are reported at the quarterly Zone management meetings. In accordance with RT/LS/P001, applications for authorised non-compliances with a requirement of RGS or RTLS are made to RT HQ Corporate Standards.
167. There is a responsibility on the Zone Director to ensure compliance with Standards and to make an annual declaration of compliance to RT HQ.

Findings

168. **End product checks and management system checks on contracts provide information on compliance with Group/Line Standards.**
169. **A Compliance Project conducted by the ICM department has helped to rationalise the process for the setting of Standards at Zone level, principally by allocating 'ownership' of Standards to personnel.**
170. **It is sometimes difficult for a Zone to determine compliance with a goal based Standard.**
171. **It is sometimes difficult for the Zone to determine when a formal application for non-compliance is needed. The Compliance Project should address this.**

REVIEW / AUDIT

Key issue:

Is there (a) adequate auditing of the Standard setting process; and b) adequate and sufficient performance review to ensure that lessons are learnt and appropriate adjustments are made to (i) plans, (ii) the Standards setting process, and (iii) Standards ?

Railtrack

172. Audits are carried out at various levels by S&SD, Assurance and Safety Department (at both RT Line and Zone), these focus on the compliance with Standards in connection with the Railway Safety Case and topic (technical) audits. There is little evidence of any systematic audit of the Standards setting process and of Standards.

Findings

173. **There is no systematic review of the Standard setting process.**
174. **Railtrack consider audits to also fulfil the role of measuring and review.**

Safety and Standards Directorate

175. RGSs are audited in two ways. Firstly, by an annual audit of a core of 20 RGSs as part of the Railtrack Railway Safety Case audit. These may be augmented by other Standards as necessary. Secondly, by an audit of a specific Standard requested by a Technical Principal either prior to a review or to check compliance after publication. The Railway Group Standards Department take no active role in auditing; this is done by the Safety Management Systems Department.
176. *The Railway Group Standards Code* is currently being reviewed in full consultation with Railway Group Members (in line with Section 11 of the Code).
177. The British Standards Institute undertake regular audits of the ISO 9002 Process Procedures. Closure meetings are held and remedial actions are acted on via the S&SD Compliance Manager. Recent audits have had very positive outcomes.

Findings

178. **Audits of RGSs are carried out and the findings e.g. non-compliance with the Standards, are sent to the relevant Technical Principal(s) to action in accordance with Process Procedures.**
179. **Technical Principals receive the outcome of audits and the change procedure for Standards is then reliant upon them to initiate as opposed to the auditor. There are no procedures which ensure action.**
180. **The Code is reviewed regularly.**
181. **A systematic programme for auditing RGSs, their compliance and “fitness for purpose” has recently been introduced.**

182. **Information from the Railway Group Standards Department's Controls Database and their Non-Compliance Database are used to inform but not drive the audit process.**

Railtrack Line

183. Technical audits of Standards implemented by Zones are instigated by Professional Heads, managed by Railtrack Compliance Section and carried out by bought in auditors. The Professional Head initiates the audit, sets the technical content, gives guidance on the audit protocol and assesses the results.

Findings

184. **There was a Corporate intention to improve the auditing process. This is to be achieved by using other sources of information on compliance e.g. Inquiry reports, Key performance Indicators (KPIs) to inform the process. It was indicated that there would be a reorganisation of the A&S Compliance Section in April 2000 to instigate the improvement process.**
185. **Audit findings are sent to Professional Heads, it is up to their judgement as to whether a revision is required. Therefore it is possible that actions will not be acted upon.**
186. **RT/LS/P/001 makes no reference to the requirement to review and audit the Standard setting process.**
187. **Professional Heads aim to review Standards within their portfolio routinely; however, no defined interval appeared to be set down.**

East Anglia Zone

188. The East Anglia Zone is audited on an annual basis via the Railtrack Railway Safety Case; this audit examines the process for the management of Standards within the Zone and trails 6-7 Standards.
189. Technical audits are requested by Professional Heads at RT Line headquarters which focus on the Zone's compliance with RGSs and Railtrack Line Standards. Corrective actions placed on the Zone are managed to conclusion by the ICM Compliance Manager.
190. The Compliance Manager will be drafting a Zone Procedure covering the audit process; this should help to improve awareness in the Zone of audit arrangements.

Findings

191. **The Zone Safety Management System is reviewed on an annual basis.**

ANNEX 1

Procedures	Standards	Influences
<p>The Railway Group Standards Code Railway Group Standards GA/RT6001, GA/RT6002, GA/RT6004, GA/RT6005, GA/RT6006 Railtrack Safety & Standards Directorate Management Systems Manual QM01 and Process Procedures Railway Group Plan</p>	<p>Railway Group Standards (S & SD)</p>	<p>S & SD (Project Managers, Technical Principals) Subject Committees Consultation with Rail Group Memebers</p>
<p>The Railway Group Standards Code Railway Group Standards GA/RT6001, GA/RT6002, GA/RT6004, GA/RT6005, GA/RT6006 RT/LS/P/001 'Railtrack Line Policy on Standards' Standards Star Chamber Management Arrangement</p>	<p>Railtrack Line Standards (Corporate Standards)</p>	<p>Corporate Standards (Standards Managers, Professional Heads Standards Star Chamber Line Subject Committees Zone Discipline experts Consultation with Contractors Audit from S &SD</p>
<p>RT/LS/P/001 'Railtrack Line Policy on Standards' Zonal Procedure 2.1.6 'Management Process for Railway Group, Railtrack Line and Zone Specific Standards'</p>	<p>East Anglia Zone Standards (Procedures)</p>	<p>Corporate Standards Professional Heads Audit from RTLine HQ and from S & SD</p>

APPENDIX 2

CONTROLLING ACCESS OF TRAIN OPERATING COMPANIES

ACCESS OF TRAIN OPERATING COMPANIES TO RAILTRACK INFRASTRUCTURE

AUDIT SCOPE

1. In determining the scope of this audit it was considered essential to audit the broader aspects of controlling the access of TOCs to Railtrack Infrastructure, including looking at the review, acceptance, monitoring and compliance requirements as detailed in the Railways (Safety Case) Regulations 1994.
2. This audit therefore looked at the processes associated with the initial RSC review and acceptance process whereby the TOC first gains access to Railtrack Infrastructure, the subsequent three yearly review process and the processes associated with "Material" and "Non Material" changes to RSCs. Additionally, the monitoring and ad hoc checking of RSC compliance by Railtrack as required by the regulations and Railtrack's own RTSC were audited. The role of the Licence or Franchise Agreements was not explored but other mechanisms of control available to Railtrack for the control of access of TOCs, e.g. Track Access Agreements (TAAs), were considered.
3. Finally, the audit sought to establish the policy of Railtrack towards non-compliant TOCs and any associated policy of escalation of compliance enforcement up to and including the possible exclusion of a TOC from Railtrack Infrastructure.
4. In considering the control of access of TOCs to the infrastructure key staff in the following parts of Railtrack's organisation were interviewed:
 - Safety and Standards Directorate (S&SD);
 - Railtrack Line operations directorate, including staff in the Assurance and Safety Directorate;
 - Railtrack Zones.
5. Additionally, views from a TOC were obtained and relevant documents and records were examined.
6. The audit applied the HSG65 model to assess Railtrack's arrangements for controlling the access of TOCs. This appendix details findings on Railtrack's management arrangements for controlling access of TOCs and findings about the robustness of Railtrack's own management systems.

A BRIEF DESCRIPTION OF THE RAILWAYS (SAFETY CASE) REGULATIONS 1994

7. The current regulatory framework under which the access of Train Operating Companies (TOCs) to the railway infrastructure is controlled, is detailed within the Railways (Safety Case) Regulations 1994 made under the Health and Safety at Work Etc. Act 1974 .
8. Under the Regulations the safety case of Railtrack was first accepted by the Health and Safety Executive. Railtrack then became the “Infrastructure Controller” and as such was responsible for accepting the safety cases of the Train Operating Companies (Regulations 3 and 4).
9. Railway Infrastructure means the fixed assets used for the operation of a railway including its permanent way and plant used for signalling.
10. No train operator is allowed to operate on Railtrack Infrastructure until its safety case has been accepted by Railtrack, the infrastructure controller (Regulation 4).
11. The Safety and Standards Directorate (S&SD) of Railtrack carry out the acceptance of TOC safety cases.. Any new TOC Railway Safety Case (RSC) must be sent to Railtrack S&SD. The Controller, Safety Management Systems, within Railtrack S&SD then appoints a panel consisting of a Chairman, Process Manager, Specialist Members and an Independent Assessor. The specialist members normally come from within S&SD where experts in railway operations, engineering and maintenance are available. There is also Lead Zone representation on the panel.
12. The panel will review the submitted RSC, asking further information from the responsible TOC as required.
13. As a minimum, the RSC of a TOC should provide details to comply with the requirements of Schedule 1 of the Railway Safety Case Regulations 1994. These include:
 - a description of the TOC’s Safety Management System (SMS) for controlling the risks they import onto the network; and
 - their arrangements and procedures which will, together with the arrangements and procedures contained in Railtrack’s Railway Safety Case (RTSC) and those of other TOCs, enable Railtrack to meet its obligations as Infrastructure Controller.
14. To ensure system safety and inter-operability across such a wide and multifaceted operation as the railways, Railtrack established the Railway Group Standards (RGSs). A TOC is required to comply with applicable RGSs and this is a requirement for the acceptance of any TOC RSC. This wide

ranging duty of co-operation is a requirement of Regulation 8 of RSC Regulations 1994.

15. TOCs are required carry out their operation in conformity with their accepted RSC (Regulation 7).
16. The responsibility of Railtrack to assess the validity of the TOC RSC extends to most aspects of the running of trains on Railtrack infrastructure, but only in so far as they have the potential to introduce risk onto the Railtrack Controlled Infrastructure.
17. This responsibility does not extend to safety arrangements wholly inside trains and arrangements inside depots except where those arrangements, such as driver competence and approved maintenance regimes, have the potential to bring risk onto the Railtrack Controlled Infrastructure.
18. When the RSC is accepted, Railtrack will inform the TOC and HSE.
19. TOC RSCs are considered to be "living documents" in that they reflect the daily operation and management of risks by the TOC and as such should be amended to reflect any changes and subject to regular review to ensure that they remain valid. Depending on the extent of the change the revision can be considered "Material", for a significant change or "Non material" for less significant changes. "Material changes" to a TOC RSC must be submitted to Railtrack as the Infrastructure Controller and acceptance of the revision received (Regulation 6(2)). "Material" and "Non material" changes are not precisely defined within the Regulations but an understanding between Railtrack and the TOC of what constitutes each type of change can be detailed within the RSC itself (Regulation 6 (2)). Additionally TOCs are required to carry out a review of the contents of their RSC at least every three years to ensure that it remains an accurate representation of the TOCs operation and then submit the results of that review and any associated changes to Railtrack as the Infrastructure Controller (Regulation 6(3)).
20. It should also be noted that in addition to operating trains, TOCs are responsible for the operation of certain stations on the network for which a RSC is also required and must be accepted.
21. At stations that are the responsibility of Railtrack, TOCs may be responsible for some activities such as train despatch and other safety arrangements.
22. Under the RSC Regulations 1994, having accepted a TOCs RSC Railtrack, as infrastructure Controller, then becomes responsible for carrying out "auditing, monitoring and ad hoc checking of the Train Operator's compliance with its RSC" (RTRSC23 Vol 1 5/7/99), (RSC Regulations (1994) Reg. 7). Regulations 3 and 8 of the Railways (Safety Case) Regulations 1994 enable the necessary access and co-operation required from TOCs to enable Railtrack as Infrastructure Controller to carry out this monitoring and require

TOCs to comply with any “reasonable request” of the Infrastructure Controller regarding any aspect of their operation that is likely to affect the performance of the health and safety duties of the Infrastructure Controller.

POLICY

Key Issue:

Is there an effective policy within Railtrack for controlling access of TOCs by safety case assessment, and effective management arrangements to make it work?

23. The auditors looked to find:

- Railtrack’s overall policy towards allowing access by TOCs to the network;
- what Railtrack required in an accepted RSC;
- whether Railtrack’s policy ensured that TOCs complied with their RSCs;
- Railtrack’s policy towards TOCs which did not comply with their RSCs;
- Railtrack’s policy towards removing a TOC which was non-compliant with its RSC from the network.

Findings

24. Railtrack has no single statement of its overall policy on controlling access of TOCs to the network.

25. However, from commitments made in the RTSC, and its duties under the RSC Regulations 1994, it appeared that Railtrack’s overall policy contained the following key elements:

- each TOC is required to have an accepted RSC before it can have access to the network;
- each TOC must continue to comply with its RSC and therefore all applicable RGSs;
- each TOC’s RSC must continue to accurately reflect the day to day operation of the TOC, and it must be amended when there are material changes to the operation of the TOC;
- each TOC is expected to take action to remedy any failures identified by monitoring and audit to comply with their RSCs;

- each TOC must negotiate a Track Access Agreement (TAA) which contractually requires an accepted RSC before the other conditions of the TAA can operate.
26. Railtrack is committed to a policy of “intolerance of failure to comply with legislation, formal procedures and commitments” and compliance is required by the Regulations.
 27. Additionally, each TOC is required to have a licence and to obtain a franchise; these are granted by ORR and OPRAF (Shadow SRA) and are not the responsibility of Railtrack. It is recognised that these requirements have an influence over initial access to the network and their removal would affect continued access to the network.
 28. Railtrack staff were unclear how ORR, OPRAF (Shadow SRA), and HSE impact on Railtrack’s policies on TOC access to the network. In particular nobody could explain the sequence and interrelationships between RSC assessment and the various other permissions required (i.e. TAAs, licences and franchises) and the emphasis placed on safety in the decision making processes for these. The remit of this audit did not allow these permissions to be explored further.
 29. Railtrack had set up control and monitoring processes aimed at meeting the five elements of policy described above . More detail on the working and efficacy of the processes can be found in other sections of this Appendix.
 30. The five elements of policy could create conflict between Railtrack and the TOCs. The TAA creates a commercial supplier/customer relationship, whilst the RSC acceptance and compliance monitoring creates a ‘supervisory’ relationship between Railtrack and the TOCs. Senior managers were generally aware of this possible conflict and there was some evidence that Railtrack’s safety supervisory role had not been allowed to be overridden by its supplier/customer relationship with the TOCs. For example, decisions on short notice engineering work were made on the basis of the engineering and safety implications and not the commercial costs likely to be incurred by Railtrack. Overall, Railtrack managed this conflict well. There was a high commitment to safety from all those interviewed.
 31. Prior to privatisation, Railtrack established S&SD as an ‘independent’ part of its organisation. One of its functions is to carry out the process of assessment and acceptance of TOC RSCs as required by the 1994 RSC Regs. Within S&SD there was a recognition of the importance of operating independently and that this independence was robustly defended and visibly maintained.
 32. Since the initial acceptance process at privatisation, S&SD had adopted a policy of ensuring that RSC content and acceptance criteria were made clear and available.

33. The policy on the level of detail in RSCs had changed and this has resulted in variation in content of RSCs since the Regulations were introduced. Railtrack consider that it can be difficult to find the correct balance of detail in any safety case regime. History shows that the detail required in safety cases tends to alter over time as the regime matures. However, in our view TOC RSCs should take more account of the increased risk associated with increasing the frequency of train services. There is more detail on this aspect in the planning and implementing section of this Appendix.
34. In order to check that TOCs comply with their accepted RSC, Railtrack S&SD have a policy to carry out annual audits of TOC RSC compliance, with more frequent audits if required. Railtrack also carry out monitoring and checking of TOCs' safety performance within the Railtrack Zones. As a matter of policy, this zonal monitoring is generally conducted away from the property of the TOC. Railtrack are aiming to standardise and extend the scope of the monitoring of TOCs through publication of new procedures in the Zone Assurance Manual (ZAM).
35. In keeping with Railtrack's policy of an "intolerance of failure", non-compliances identified through audit are highlighted to the responsible TOC and an action plan agreed for achieving compliance. S&SD have recently introduced a more robust policy towards monitoring TOC progress against action plans but this has yet to be fully tested. It was also Railtrack's policy that non-compliances identified through day to day Zone monitoring were raised directly with the TOC for remedial action.
36. Railtrack recognises in its own RTSC that safe operation of the Infrastructure is a joint effort involving all who use the Infrastructure, including TOCs. Railtrack therefore has a policy of close co-operation with TOCs and others in, for example, the development of safety plans.
37. We sought to establish the policy of Railtrack towards a non-compliant TOC that was unwilling or unable to respond to requests from Railtrack to comply with the requirements of its RSC. This policy had not yet been formalised. Railtrack S&SD had however developed an informal policy of using any available leverage it had within its own responsibilities to encourage TOCs to meet their RSC commitments and to complete any outstanding actions. For example, S&SD would consider withholding acceptance of material changes to TOC RSCs until outstanding actions had been completed.
38. Railtrack S&SD had recently proposed an escalation policy for ensuring that TOCs meet actions arising from audits regarding RSC compliance. These proposals have not yet been subject to Board discussion.
39. S&SD was hindered in developing their policy because it was not clear to them how much power the Railway (Safety Case) Regulations 1994 gave Railtrack to force TOCs to comply with their RSCs and requests for actions following audits. The position has been clarified recently following dialogue

with HSE and a TOC expressed the opinion that Railtrack definitely had a “policing role” towards their compliance with their RSC provided it was conducted in credible manner.

40. Railtrack had given consideration to an individual case to an escalation of actions towards a non-compliant TOC which was causing serious concerns. Apart from S&SD’s initial consideration of an escalation policy (described above), there was no other evidence that senior management, as a result of this example or as matter of course, had considered establishing a formal policy for enforcing TOC compliance with their RSCs, up to and including the ultimate sanction of removal from the network.
41. Senior managers were aware of the difficulties and indicated that, although they believed that removal of a TOC from the network was legally and theoretically possible, this would have implications beyond Railtrack’s own safety and commercial interests. For example, if a TOC was excluded from the Railtrack infrastructure then its trains would not run and therefore there could be an increase in road traffic with potentially greater significance for public safety. It appeared that any formal policy for enforcing TOC compliance with their RSCs, up to and including the ultimate sanction of removal from the network, would need to be developed by Railtrack in conjunction with OPRAF (Shadow SRA), ORR, HSE, DETR and Government in general.

Principal Findings

42. **Through its policy on RSC assessment and acceptance Railtrack has strong control over initial access to the network by TOCs.**
43. **In their dealings with TOCs, Railtrack manage the conflict between supplier/commercial and safety enforcement roles diligently.**
44. **Railtrack has not considered corporately its own escalation policy, up to and including the ultimate sanction of removal from the infrastructure, to force non-compliant TOCs to comply with their RSCs.**
45. **Railtrack exercises a supervisory function towards Railtrack’s customers through its RSC assessment, acceptance and auditing processes. However, it exercises only limited powers of compliance enforcement against TOCs because of its interpretation of the Regulations.**
46. **In the absence of a clear policy for excluding TOCs from Railtrack infrastructure, Railtrack, through its TOC auditing and monitoring activities, primarily aims to control compliance of TOCs with their RSCs and not their actual access to the infrastructure.**

47. **Any such policy for excluding TOCs would need a wider consideration of the issues involved than Railtrack alone can provide.**

ORGANISING - CONTROL

Key Issue:

Is there an adequate management structure for implementing the policy for controlling access of train operating companies to the rail infrastructure?

48. The following issues were explored:
- whether there was a management structure with defined authorities and responsibilities for the control of access of TOCs;
 - whether those with these responsibilities understood what they were expected to do and how they would be held accountable;
 - how safety performance of the TOCs was identified by Railtrack and how they corrected poor performance;
 - how issues of conflict between the varying interests of the business were resolved with the TOCs.

Findings

49. Railtrack has a well defined organisational structure which is described in their RTSC. This includes reference to the roles and responsibilities of key post holders. Everyone interviewed had a formal job description with assigned safety responsibilities, where appropriate. There is a performance appraisal system and safety is a significant feature in the annual review of an individual's performance; there was some evidence that good safety performance was rewarded. Generally individuals had a clear understanding of their personal roles and responsibilities, those of the Directorate they worked in and its relationships with other Directorates.
50. S&SD play a major role in the processes for controlling access of TOCs to the infrastructure in that they manage the assessment, acceptance, review and change processes and the compliance audits of TOC RSCs. Documented procedures have been established for each of the processes and these have been audited and certified against ISO 9002. It is these processes that provide strong control of initial access to the network but they are less rigorous in controlling TOCs' activities once access has been granted.
51. S&SD have developed and published acceptance criteria for the assessment of TOC RSC applications and have provided advice to applicants in their

'Guidance on RSC for acceptance by Railtrack'. The acceptance criteria are based on Schedule 1 of the RSC Regs.

52. Whilst S&SD have processes for dealing with material changes to the TOC RSCs, the definition of a material change, although based on the guidance to the RSC Regs, is open to interpretation. Railtrack had recently issued a Guidance Note on the submission of revisions to RSCs. The processes for dealing with material changes do not appear to be linked to those for changes to the Track Access Agreements. As a result it is possible that access may be granted contractually without an accepted material change to the RSC being in place.
53. The management of the statutory requirement placed on TOCs for a three yearly review of RSCs by S&SD is less well structured than other processes and relies quite heavily upon the TOCs to meet their statutory duty and on the initiative of individuals within S&SD. The process in place is an example of good practice which is not part of the documented systems in S&SD.
54. S&SD are not required by the Regulations to re-accept TOC RSCs at the three yearly review stage. Therefore there is no opportunity for them to evaluate the past safety performance or the findings from their audits to inform the review as they only receive notification that the review has taken place. Therefore, Railtrack perceives that it does not have the opportunity to make judgements on a TOC's safety performance and bring pressure to bear on poor performers at this stage.
55. S&SD undertake audits of TOCs against a published protocol to assess TOC compliance with their accepted RSC. The protocol was developed independently from, and well before, the latest published RSC acceptance criteria and as a result the two documents are not closely aligned. This weakness has already been recognised by S&SD and plans are in place to ensure the two documents become mutually supportive. S&SD also carry out audits to check fitness for purpose and compliance with RGSs, however the TOC visited as part of the review did not recall ever having been subject to this type of audit.
56. Railtrack has been structured to give S&SD organisational independence and this is reflected in their interaction with Railtrack Line and in their relations with TOCs. There was some evidence that this independence may have led to barriers in exchanging information e.g. the sharing of intelligence between S&SD and commercial departments concerning amendments to TAAs and RSCs. It may also reinforce the view, expressed in one Zone, that the responsibility for the monitoring of TOCs lies with S&SD alone.
57. There was some evidence that the safety performance of TOCs is regarded as an issue for S&SD to oversee rather than Railtrack Line. Some of those interviewed believed that all dealings with TOCs on safety were primarily the

responsibility of S&SD and that Railtrack Line should play only a secondary role.

58. The RTSC assigns responsibility for monitoring the day to day safety performance of TOCs to the Zones within Railtrack Line. Staff in Zones generally accepted responsibility for the day the day monitoring of the safety performance of TOCs but the level of monitoring activity was found to be fairly limited in scope (see Monitoring). There is a lead Zone system to co-ordinate Railtrack Line dealings with TOCs and each Zone has a Train Operation Interface Manager (TOIM) to act as the central contact on operational matters.
59. Commercially, access of TOCs to the infrastructure is controlled via Track Access Agreements (TAAs). Account Executives are appointed to be responsible for individual TOCs and negotiate the contractual details of the TAA and supplementary agreements when changes are made to the TAA. These agreements are ultimately approved by ORR. In these negotiations there appears to be little consideration given to the past safety performance of the individual TOC although apparently there had been recent moves for better co-ordination between Commercial Department and S&SD to improve this. The finalisation of TAAs is linked to the acceptance of TOC rolling stock via Rolling Stock Acceptance Board certificates. TAAs include reference to Suspension and Termination Notices which are formal arrangements that can be used to raise contractual disagreement between TOCs and Railtrack. The circumstances under which these notices could be used for resolution of safety concerns does not appear to have been clearly defined and agreed within Railtrack.
60. People who were interviewed felt that Railtrack had limited power over TOCs in gaining improvements in safety performance. Regulation 3 of the RSC Regs empowers Railtrack to make 'reasonable requests' in requiring the TOCs to comply with the commitments made in their accepted RSC. This had not been pursued or exploited to any great extent in Railtrack's dealings with TOCs, although opportunities had been taken by S&SD to use the material change acceptance process as a lever to gain improvements in individual TOC's performance. It appeared that little consideration had been given to the sanctions, including the possibility of exclusion from the network, which should be taken against a systemically non-compliant operator. There was evidence that an escalation strategy was being developed by S&SD to assist them in ensuring improved compliance across the TOCs. This strategy was largely targeted at improving compliance and not overall control of access. In summary, the absence of an escalation policy supported by clear criteria, results in Railtrack exercising only limited control over the TOC once the RSC had been accepted.
61. No-one within Railtrack was responsible for formulating an overall picture of a TOC's safety performance and for pursuing corrective action against poor performers. As a result it was difficult to establish how Railtrack could come

to overall conclusions about TOC compliance with their RSC and make judgements about the actions needed to deal with non-compliant TOCs. The RTSC states that "Account Executives...have overall general responsibility for all aspects of the relationship with the customer" but in practice they provide primarily a focus for contractual arrangements between Railtrack and TOCs i.e. the role of the Account Executives in the negotiation of Track and Route Access Agreements, and have very little involvement in safety issues.

62. The people interviewed felt that balancing the commercial and safety pressures was not a difficult issue. Most saw safety and operational performance as complimentary, with safety paramount i.e. improvements in safety performance would usually result in benefits for operational performance and vice versa.
63. There was no evidence of pressure being put on Zones to maximise the use of the infrastructure to the detriment of safety. On the contrary, examples were given where they had decided against the increased use of the infrastructure as this would have been to the detriment of Railtrack's business e.g. Railtrack were willing to restrict speed into a mainline station even though it resulted in a reduction in capacity.
64. There is no separate budget for safety within the Zones but numerous examples were given where Railtrack staff were willing to use any other available budgets for safety issues, even though this was against strict budgetary controls e.g. the use of performance improvement budgets to improve the arrangements for pedestrians crossing tracks in one location, where the performance benefit was negligible and the motivation was primarily safety.

Principal Findings

65. **Railtrack have a well defined organisational structure which includes job descriptions, assigned safety responsibilities and a performance appraisal system.**
66. **The balance between the commercial and safety pressures in the industry was not an issue for staff within Railtrack; most saw safety and operational performance as complimentary, with safety paramount in their approach.**
67. **The control Railtrack exercises over TOCs is predominantly focused on the control of initial access and is less focused on controlling TOCs' day to day activities once access has been granted. The absence of an escalation policy supported by clear criteria results in Railtrack exercising only limited control over the TOC once the RSC had been accepted.**

68. **The processes for dealing with material changes to TOC RSCs do not appear to be linked to those for changes to the Track Access Agreements. As a result it is possible that access may be granted contractually without an accepted material change to the RSC being in place.**
69. **Regulations do not allow Railtrack the opportunity to make judgements on a TOC's safety performance at the statutory 3 year review of the TOC's RSC and they are therefore unable to bring pressure to bear on poor performers at this stage.**
70. **TAA's include reference to Suspension and Termination Notices which are formal arrangements which can be used to raise contractual disagreements between TOC's and Railtrack. The circumstances under which these notices could be used for resolution of safety concerns does not appear to have been clearly defined and agreed within Railtrack.**
71. **No-one within Railtrack was responsible for formulating an overall picture of a TOC's safety performance and for pursuing corrective action against poor performers.**

ORGANISING - CO-OPERATION

Key Issue:

Are there adequate and appropriate arrangements to secure the trust, participation and involvement of all relevant parties in the processes for controlling access of TOCs to the infrastructure?

72. The auditors were particularly interested in:
 - the work of any joint committees and how information is shared;
 - the involvement of relevant parties in decision making, action planning, risk assessment, accident investigation, rules and procedures and whether this involvement was promoted and encouraged;
 - how the safety concerns of relevant parties were raised and dealt with.

Findings

73. The Railway Group contributes to the development and maintenance of all RGSs and S&SD prepares a Group safety plan to which all members are expected to contribute through a series of consultation exercises.

74. Railtrack has a system for consulting with relevant parties on RGSs and other issues of mutual interest i.e. the Green Paper system, which was, for example, used to consult TOCs on the acceptance criteria for RSCs.
75. ExCo meets monthly and involves all the Zone Directors and the Operations Directors for Railtrack Line. Whilst issues involving TOCs e.g. SPADs, are discussed at these meetings, it appears that the safety performance of TOCs specifically is not a standing agenda item.
76. TOCs are advised and consulted on the remit of S&SD audits and work together with S&SD to formulate action plans. S&SD provide a 'fact pack' to assist in the creation, review and amendment of TOC RSCs and also provide advice and guidance on what is to be considered as a material change and hence requires revision of the RSC.
77. Railtrack has recently carried out a 'customer' satisfaction survey and it appears a high level of satisfaction is achieved. The TOC visited as part of the review recognised that their aspirations for safety were closely linked to those of the Zone and that they generally worked well together; they were keen to emphasise that they did not see their operational relationships as "too cosy or friendly".
78. Railtrack Line operate a system of Lead Zones for individual TOCs based on the TOC's primary operating area. The Lead Zone acts as central focus for contacts between Railtrack and the TOC. In addition, the Account Executives within the Zones act as a central focus for contractual and operational matters with all TOCs within the Zone. The TOIM provides a day to day interface with all TOCs within a Zone at the TOC train crew level to facilitate compliance with the RSC. The TOIM interviewed also uses the Traction and Train Crew Forum to encourage the sharing of best practice between TOCs.
79. There is a Train Operators Safety Group on which Railtrack and the safety managers of all TOCs are represented and there have been some joint initiatives between the Zones and TOCs e.g. joint emergency exercises and poster campaigns.
80. Zones also chair Performance Improvement Group and Route Management Group meetings with TOCs to discuss improvements to operational performance. We understand safety implications are sometimes discussed and may be used to prioritise actions.
81. There was a lot of evidence of good co-operation within Railtrack and between Railtrack and TOCs. There was generally a willingness to share information and best practice on safety, and there was evidence of best practice recently being shared between Zones in the preparation of new procedures for the monitoring of TOCs. However there was little evidence that this was a result of any systematic process but was rather as a result of the initiative of individuals. All those interviewed said that there were good

relationships between the Zones and TOCs at most if not all levels in the organisations. In many cases, investigations were conducted jointly, although there was some evidence that TOCs may not be invited to be involved in some investigations of interest to them.

82. One person commented that he felt that the liability/compensation arrangements between Railtrack and TOCs acted as a barrier to improved co-operation in some instances e.g. the exchange of information for incident investigations.
83. Railtrack operate and maintain a number of databases which TOCs have ready access to e.g. Safety Management Information System (SMIS) and TRUST.
84. In one Zone there are regular Safety Interface Meetings (SIMs) between Railtrack Line and each TOC. SIMs are used for monitoring the close out of actions from S&SD audits of TOCs and recommendations from inquiries and investigations. However, these are not agenda items and it appears that little discussion actually takes place. There was evidence that the agenda for SIMs appears to be largely driven by Railtrack and there was some evidence of a 'blame culture' towards TOCs. Views were expressed that these meetings tend to be a 'one way street for information' and concerns raised by TOCs were slow to be resolved e.g. reports of gates being left open allowing unauthorised access to track side taking many weeks to correct. Concerns raised by staff within the TOCs can be entered on to SMIS but these are not necessarily discussed at SIM. However, individuals receive a personal response when an issue they have raised has been dealt with. One Zone also operates a safety committee to which the MDs of all the TOCs, contractors, Freight Operating Companies and Station Operators are invited.

Principal Findings

85. **Co-operation within Railtrack and between Railtrack and TOCs was generally good. Information and best practice on safety was being shared.**
86. **The safety performance of TOCs is not a specific standing agenda item on many of Railtrack's safety meetings e.g. ExCo, SIM.**
87. **There are indications that the agenda for SIMs in Zones is largely driven by Railtrack and there was some evidence that this fosters a 'blame culture' towards the TOCs.**

ORGANISING - COMMUNICATION

Key Issue:

Are there effective arrangements to secure adequate information flows within and between Railtrack and TOCs in relation to controlling access to the infrastructure?

88. The auditors were interested in the following issues:

- the acquisition and dissemination of safety information within Railtrack and to TOCs and how this is achieved;
- how the information on the safety performance of TOCs is gathered and used;
- how this information is turned into intelligence on the operation of TOCs and how are stakeholders kept informed;
- promotion of safety;
- the general communication channels within Railtrack and between Railtrack and TOCs.

Findings

89. Generally there were good working relations and communications between post holders within Railtrack and TOCs. Many of the individuals spoken to had a common background in British Rail and were known to each other. The concern therefore is whether these good communications are a result of the individuals in post rather than from the mechanisms put into place by the organisation.
90. S&SD have copies of all TOC RSCs, and we were pleased to find that Railtrack had provided a copy of their RTSC to TOCs.
91. Extensive use is made within Railtrack of modern communications such as pagers and e-mail. There was evidence of informal information exchanges on intelligence related to TOCs within S&SD. Railtrack also operate and maintain a range of electronic databases for the collation of information from formal inquiries, investigations and from day to day monitoring of the operational and safety performance of TOCs.
92. SMIS is maintained by Railtrack and is accessible to all Railway Group members for the input of mandatory data and for access by TOCs to specific records. Entries to SMIS are sometimes verified against written reports and other sources but this verification is not part of the formal documented procedures of S&SD. S&SD provide information from SMIS to the Train

Operators Safety Group on safety performance for their quarterly meetings. SMIS is currently provided free to TOCs and training in its use has been provided. SMIS can be interrogated to produce special topic reports and regular safety performance reports. However, it was noted that no routine report from SMIS is requested by Senior Management within Railtrack regarding the safety performance of TOCs. SMIS also allows the production of RIDDOR reports as an incentive for TOCs to input data.

93. Different Directorates and Zones also operated and maintained a variety of databases e.g. COMPASS, TRUST, FRAME, DEMON. Railtrack Line also maintains the National Control Log. There are other more specialised databases such as that recording the recommendations from formal inquiries and investigations. However, these databases are mainly operated independently from others with very little evidence that information contained in them is shared. Two of the Zones understood that proposals had been made to adopt COMPASS across the network but Railtrack had no plans to take these proposals forward. Some databases were difficult to interrogate for intelligence on the safety performance of a particular TOC. S&SD maintain files which contain information on the safety performance of each TOC which is used in planning audits and follow-up and in the acceptance of RSCs, but there was limited information in the one file referred to during the audit.
94. Railtrack produces a quarterly safety performance report which is circulated to all Railway Group members to provide information on safety performance against the objectives set in the Railway Group Safety Plan. A monthly Safety Intelligence Report is produced which provides information on each of the Zones performance against laid down key performance indicators (KPIs). This is also circulated to Railway Group members.
95. There was daily contact between the Zone and TOCs at a number of organisational levels, and monthly meetings where safety is discussed were held between the Zones and TOCs at Director/Managing Director level.
96. Overall there were individual pockets of very good information regarding the safety performance of TOCs but these were not being used to best effect. The various records and databases have different purposes and as a result, there was no single point of reference within Railtrack which had all the information on the safety performance of a particular TOC.
97. The issue of how ORR and OPRAF (sSRA) kept themselves informed on the safety performance of TOCs was not explored but there was no evidence that requirements had been placed on Railtrack to provide relevant information.

Principal Findings

98. **SMIS is accessible to all Railway Group members.**

99. **No routine report from SMIS is requested by senior management within Railtrack regarding the safety performance of TOCs specifically.**
100. **There are individual pockets of very good information regarding the safety performance of TOCs but these are not being used to best effect.**
101. **There is no single point of reference within Railtrack where all the information on the safety performance of a particular TOC is available.**
102. **There was no evidence that requirements had been placed on Railtrack to provide relevant information to ORR and OPRAF (SRA) on the safety performance of TOCs.**

ORGANISING - COMPETENCE

Key Issue:

Are there systems and arrangements to secure competence of those involved in controlling access, including assessing safety cases, and any subsequent monitoring and audit of safety case compliance.

103. The auditors considered:
 - how safety competences were identified for key positions;
 - what systems there were to ensure adequate safety training of those involved in controlling access of TOCs;
 - how training needs were identified i.e. on recruitment, transfer or as a refresher;
 - the arrangements for structured assessment of competence;
 - the adequacy of safety advice.

Findings

104. The majority of people interviewed had a breadth of experience in the rail industry and were aware of the associated risks. This experience of the rail industry was primarily gained as part of British Rail when infrastructure and train operations were controlled by a single organisation. Others brought experience from other high hazard industries and it was apparent that their skills were being used appropriately within the organisation.
105. As a result of privatisation and the fragmentation of the rail industry, Railtrack considered itself to be a relatively new organisation that was still developing the skills required to deal with its current operating environment, including its interfaces with train operators.

106. Parts of Railtrack had recently undergone a fundamental review of their organisational structure and had undertaken a skills analysis as part of this business re-engineering process (C-Change). As a result, the key competences for posts were identified and recorded in individuals' job descriptions. Safety responsibilities were also assigned. There was some evidence that the analysis of individual training needs was linked to these key competences. However, there did not appear to be any systematic review of the competences identified by C-Change and many people interviewed had not had their key competences updated, despite having developed additional skills in order to meet specific work objectives.
107. There was one example of an individual who had been put into post with little supervision over the subsequent development of his skills. Although training needs had been identified these had not been pursued and no formal assessment had been undertaken to confirm the necessary skills had been acquired. S&SD was seen as the primary source of safety advice within Railtrack and the people spoken to within the Directorate appeared knowledgeable and experienced in safety and quality systems. Generally there was a willingness within the organisation to seek outside advice when gaps in the skills within the organisation were identified.
108. Auditors within S&SD had Lead Auditor status and many had obtained professional qualifications in safety, such as NEBOSH¹ Diploma and Registered Safety Practitioner status. Auditors had apparently also recently received training on the introduction of the latest version of the audit protocol.
109. S&SD employ a panel system for the assessment of RSCs and draw upon appropriate technical skills from within the organisation to undertake the assessments. It is understood that independent outside expertise is occasionally used on these panels.
110. Railtrack Line also has its own safety professionals to provide day to day advice and support. There is a dedicated department at Railtrack headquarters (A&SD) and each Zone also has an appointed A&S Manager.
111. Some staff at Zone level believe that they are becoming less competent in the day to day operation of trains and rolling stock because they are no longer involved in these activities. In one Zone a TOIM had recently been recruited from a TOC to bring in relevant expertise. One production manager has introduced training of his staff to try to preserve their competence in 'train matters'. It was generally recognised that the maintenance of these skills could be important in the future, particularly in maintaining the credibility of Railtrack monitoring activities at Zone level.
112. Account Executives do not consider the safety performance of a TOC during their negotiations of TAAs. Account Executives generally have a commercial background and possibly have some experience of railway operations but

¹ National Examination Board for Occupational Safety and Health

would have to rely on others for appropriate safety advice. Account Executives are not provided with the necessary safety information and skills to consider the safety performance of the TOCs in their negotiations of TAAs.

113. There were several examples where good practices in Railtrack relied heavily on the personal initiative, knowledge and experience of individuals rather than the requirements of the safety management system. There was also evidence in some cases that the training of staff was the result of an individual line manager's initiative rather than any systematic assessment of the organisation's needs. It was unclear how these good practices were being picked up and incorporated into the system.

Principal Findings

114. **Key competences and safety responsibilities for some posts have been identified and recorded in individual's job descriptions.**
115. **Since C-Change there had not been any systematic review of individual's key competences although additional skills had been acquired to meet specific work objectives.**
116. **There was a willingness within the organisation to seek outside advice when gaps in the skills within the organisation were identified.**
117. **Railtrack are in danger of losing their expertise in train operations and this could impact on their ability to manage the infrastructure and the credibility of their monitoring of TOCs.**
118. **Account Executives are not provided with the necessary safety information and skills to consider the safety performance of the TOCs in their negotiations of TAAs.**
119. **Some of the good practices in Railtrack were attributable to the personal initiative, knowledge and experience of individuals rather than the requirements of the safety management system. These good practices were not being picked up and incorporated into the system.**

PLANNING AND IMPLEMENTING

Key Issue:

Are there adequate mechanisms for making appropriate plans for controlling access, in particular for safety case assessment, monitoring and audit of safety case compliance? Is there an effective process for controlling access, including safety case assessment?

120. The auditors were interested in:

- the existence and adequacy of safety plans;
- how plans were devised and implemented;
- how priorities were determined and set, including those for assessment, monitoring and auditing of TOC RSCs;
- how risk assessments were used in the processes for acceptance and revision of TOC RSCs;
- how safety performance standards were developed and used.

Findings

121. There was no overall strategy for controlling access of TOCs, however there were plans for safety improvements to the infrastructure and for certain management processes important to controlling access of TOCs e.g. RSC assessment, acceptance and compliance audits.
122. Railtrack are intimately involved in the preparation of the Railway Group Safety Plan (RGSP). The planning process involves representatives of all members of the Railway Group and is a top-down/bottom-up iterative process. The RGSP is developed through consultation and is supported by the individual plans prepared by Group members. The RGSP sets objectives for the Group to meet and provides limited detail on how these objectives are to be achieved.
123. While the development of the plan within Railtrack involves both HQ and the Zones, the plans for the TOCs are developed completely independently. It is understood that the individual plans that go to make up the RGSP have recently been reviewed by S&SD and were found to be incapable of delivering the overall RGSP. Additionally, the RGSP is a 10 year plan, although some of the TOCs have less than 4 years left to run on their franchises. There must be a question whether the plan can be implemented if it is based on commitments by members who may not be involved for the whole 10 year period.
124. The TOC plans are expected to be targeted at achieving the overall RGSP. Responsibility for implementation of TOC plans rests with each TOC. It was unclear who within the Railway Group has been made responsible for monitoring overall progress against the plans. Whilst Zones have the opportunity to monitor progress of the TOC plans in the SIM, apparently little discussion on this actually takes place. Additionally, Zones appear to have little influence over how the TOC delivers its plan. Information on TOCs' progress with their plans is therefore unavailable to Railtrack in formulating any overall assessment of a TOC's safety performance.

125. S&SD had well developed plans for the assessment and acceptance of TOC RSCs and the audit of TOC compliance with its commitments. Acceptance criteria for TOC RSCs and an audit protocol for compliance had been established. They also prepared plans for 'fit for purpose' audits against RGSs.
126. S&SD plans call for an audit of each TOC's compliance with its RSC at least once every year and allow for consultation with the relevant TOC on the remit for the audit and the preparation of action plans. S&SD have used an informal system for prioritisation of their audit plans for TOCs but they are developing a system for better prioritisation of these audits based on the complexity and risk of TOC operations, together with intelligence on their past safety performance. S&SD plans for audit of TOCs include follow up activity to ensure action plans are being progressed, with a higher level of activity associated with poor performing TOCs. The follow up arrangements had recently been improved to ensure progression through to completion in all TOCs but the effectiveness of the changes had not yet been fully tested. It was noted that S&SD did not feel constrained by any financial requirements when deciding audit plans.
127. S&SD plan their audits of compliance with RGSs at formal planning meetings. These audits are prioritised based on a qualitative assessment of the risks associated with non compliance with the RGSs. Some attempt is made to identify developing trends in the safety performance of TOCs in deciding who to include in the audit programme. However, these developing trends are not communicated to TOCs to assist them in planning their own monitoring activities.
128. Railtrack had recognised the need to rationalise and integrate the plans for their audits so as to avoid overlaps, e.g. one contractor had been subjected to 7 audits by Railtrack in a 6 month period. One database listed over 500 Railtrack on going audits.
129. Plans for dealing with the statutory three yearly review of RSCs were less well developed and the only system found for anticipating receipt of notifications was an informal arrangement developed by an individual. The process in place is an example of good practice which is not part of the documented systems in S&SD.
130. A process exists within S&SD for the management of material changes to TOC RSCs. This is a reactive process reliant on notification from TOCs and is not linked in any systematic way to the process for the agreement of amendments to the TAA. It was a matter of concern that there was a possibility that a TOC can make a significant change to its operations without having a revision of its RSC accepted. It is understood that one TOC had increased its operations on a particular route by 50% and that this introduced significant new risks to the network. There had been amendments to the TAA but no change to the TOC RSC because the increase had not been

considered a material change. However, an assessment of the risks carried out by Railtrack in collaboration with the TOC had necessitated significant new control measures being introduced on the route. It is a weakness that an issue which in our view would be a material change was not reflected in the TOC's RSC. The Guidance note on submitting material revisions to RSCs published recently by Railtrack would support this view.

131. Remits are prepared for Formal Inquiries and the Formal Inquiries Manager should see remits for investigations the Zones undertake. It is our understanding that an RGS sets timescales for undertaking formal inquiries and investigations and for agreeing actions but that in reality these are rarely met, and in one case agreement of actions has been outstanding for many years. Railtrack had recognised the problems relating to timescales and discussed these in the Green Paper "The future of Accident Investigation in the Railway Industry (May 1999).
132. Zones plan for the monitoring of TOCs' safety performance but this monitoring is predominantly based on the examination of incidents e.g. SPADs, with some active monitoring of trains speeds. Improvements to the monitoring of TOCs' safety performance had been discussed by the Production Managers Group in July 1999. New procedures were to be included in the ZAM which increase the scope of active monitoring. Railtrack had identified that additional resources would be needed by Zones to implement the additional monitoring requirements. The revised proposals represent an improvement but concerns remain that the frequency of active checks is not proportionate to risk (e.g. to the size of the fleet, route length and complexity of operation etc.) and is not sufficient to build an accurate picture of TOCs' safety performance.
133. Whilst S&SD involves Lead Zones and Railtrack HQ in the compliance audit process, in Railtrack's overall planning there was no evidence of a cohesive mechanism for the analysis of all the available information on a particular TOC and for using it in identifying and prioritising subsequent action.
134. Performance standards had recently been developed for the day to day monitoring of TOCs' safety performance and apparently these are to be incorporated into the new ZAM which will be used across all seven Zones.
135. There were other performance standards but these were primarily targeted at measuring operational performance i.e. minutes delays etc.

Principal Findings

136. **There is no overall strategy for controlling access of TOCs, however there were plans for safety improvements to the infrastructure and for certain management processes important to controlling access of TOCs.**

137. The RGSP is developed through consultation with TOCs but the timescale for delivery of the RGSP can exceed the franchise period for some TOCs.
138. S&SD plans extend to include follow up activity to ensure action plans arising from audits are progressed and implemented. The follow up arrangements had recently been improved to ensure progression through to completion but the results of the changes had not yet been fully tested.

MEASURING

Key issue:

Is there adequate and sufficient monitoring and measurement of the processes for controlling access of TOCs to the infrastructure, in particular: progress with plans; the safety case assessment process, and Railtrack and TOC's safety performance, particularly their compliance with safety cases?

139. The auditors looked to find:
- what were the arrangements for monitoring, measurement and checking carried out by Railtrack;
 - what aspects of TOC activities were subject to monitoring, measurement and checking by Railtrack;
 - what use was made of Railtrack's monitoring, measurement and checking of TOC performance;
 - whether Railtrack's monitoring, measurement and checking was prioritised and balanced effectively between proactive monitoring (i.e. before any incident) or reactive (i.e. in response to an incident).
 - whether the monitoring, measurement and checking by Railtrack was sufficient, and suitably managed, to enable Railtrack to make decisions on controlling access by TOCs.

Findings

140. Monitoring, measurement and checking by Railtrack that relates to control of access of TOCs is primarily carried out by two parts of the company: S&SD and the Zones. This section looks at each in turn.

S&SD based monitoring, measuring and checking

141. S&SD monitor TOCs' compliance with their accepted RSC through audits. Overall, the audit regime is based on the policy of annual audit of each TOC,

supplemented by additional audits if there are any concerns over the activities of a TOC. This is proactive monitoring.

142. S&SD audits were conducted using a written protocol which is supplied to the TOCs. Audits were focused at either TOC safety management systems, as described in the TOC's own RSC and at compliance with applicable RGSs, which the TOC is committed, through its RSC, to meeting.
143. The audit process was examined from determining the audit programme, devising individual audit remits through to delivery of findings, recommendations, agreement of action plans and follow up on actions.
144. S&SD maintained an audit programme which was documented, planned and satisfactorily managed. RSC compliance audits are carried out annually as a minimum. However, the prioritisation of other audits within the programme was based primarily on "feelings from intelligence" rather than being based on identified risks. This is a weakness in the overall planning process for the monitoring of TOC performance through S&SD audits. S&SD were aware of this weakness and had begun to develop a risk based prioritisation system built on the complexity, intensity of services being provided by the TOCs and previous safety record of the TOC. S&SD plan to use the developing Controls Database, Risk Model and Safety Intelligence Centre in future to support the existing processes.
145. The process for devising individual audit remits was good. It involved different disciplines from within S&SD, input from the Zones and the TOC being audited. Prior to the audit, there was a well structured process of briefing and preparation which included the auditors and staff in the TOC.
146. Among the strengths of the audit process was the policy of keeping a balance between particular auditors being involved in a number of audits of the same TOC to maintain familiarity with the operation, and rotation of auditors to maintain impartiality and spread best practice across TOCs. There was also evidence of targeting of auditors with specialist skills and knowledge to particular audits.
147. The individual auditors interviewed were trained and competent in their role and were committed to their task.
148. At the end of each audit a report was produced for the TOC detailing non-compliances against specific legislation and RGSs. This is sent directly to the Managing Director (MD) of the TOC. This focus directly to the MD of the TOC is a strength within the overall process. However, from the TOC perspective sometimes reports were difficult to understand, with actions hard to identify and priorities unclear. The format of the reports had been changed recently to improve consistency and give more detail on the findings of the audit. It is made clear whether the TOC is compliant against particular requirements e.g. Regulations or RGS. However there is little comment

made on the underlying causes of non-compliances and only brief mention in the report of the effectiveness of the TOC safety management systems. There are apparently proposals to use the temporary non-compliance procedure against RGSs to highlight to TOC MDs the importance attached by S&SD to the non-compliances.

149. The TOC is required to produce an action plan to address the non-compliances and this is presented to, discussed with, and then agreed with S&SD.
150. Having agreed the action plan with the TOC, some responsibility for monitoring implementation of that plan was transferred to the appropriate Zone. At Zone level follow up activity was generally weak, due in some instances to a lack of ownership. Any follow up that was done was through the Safety Interface Meeting with the TOC, and this meeting did not include such follow up as a standing agenda item. Zones were prepared to admit that this was a weakness in the overall process.
151. Despite this weakness in Railtrack's monitoring of the TOC's implementation of audit recommendations, there was evidence from the TOC visited that action plans were completed. This was in part due to the TOC recognising its own legal responsibilities to comply with its RSC, rather than in response to follow up monitoring by Railtrack. There were some cases where the same non-compliances had been recorded in the previous year's audit of a TOC. S&SD was aware of these weaknesses in the process and had recently improved their follow up processes to ensure progression of all actions through to completion. The effectiveness of the changes had not yet been fully tested.
152. The audit process as a whole, is a well considered and managed process, with the crucial exception of confirming the implementation of audit action plans by the TOC. Therefore, in this regard, it is unclear how Railtrack can demonstrate that it meets its safety policy commitment of an "intolerance of failure", because the confirmation of implementation of action plans is not robust. It is not robust because action plans are passed to the Zones where they are not formally tracked, and any subsequent action by S&SD to confirm compliance is not sufficiently timely.
153. The primary focus of this audit activity was towards identifying non-compliance and taking action to bring TOCs into compliance with their RSCs. There was little evidence that the information gathered from these audits was being used to identify underlying failures in the safety management system of the TOC. The TOC was confused as to the actions that were required in the S&SD audit report.
154. There was no evidence that the information gathered from these audits was fed into a process that questioned the right of continued access to the infrastructure by particular TOCs.

Zone based monitoring, measuring and checking

155. Zones carried out monitoring, checking and performance measuring of TOCs operating on Railtrack infrastructure. They also measured the performance of their own operation and this could, as a by product, provide information on the performance of TOCs as well. This monitoring was largely reactive.
156. For the purposes of this report, the information gathered by the Zones can be divided into two types:
- performance of train services over the infrastructure, which is measured primarily in terms of punctuality or “minutes lost”;
 - safety performance, for example speed checks on trains, SPADs, and RGS compliance by TOCs’ and Railtrack’s own staff.
157. These two types of information are very closely related. For example, a SPAD has direct safety implications but also effects performance because trains will be delayed whilst the incident is dealt with.
158. Day to day monitoring of TOC safety performance is carried out by Zones, for example, speed checking and train despatch by TOC staff at stations. The aspects of TOC operation covered by this monitoring varied across the Zones. The Zones have identified this inconsistency and have recently started to develop new procedures for inclusion in the ZAM detailing the TOC activities to be monitored by all Zones in the future, and the frequency of observation. In devising this new list Railtrack has extended monitoring by Zones to such issues as monitoring of driver duties from within the train cab. This broader based monitoring is to be welcomed but more needs to be done.
159. The findings of the current monitoring were raised at the monthly Safety Interface meetings with the particular TOCs and remedial actions could be agreed, where appropriate.
160. This process of day to day monitoring in Zones was focused towards “end-product” RGS compliance rather than safety management system and RSC compliance of the TOC. This is best explained by an example. A speeding driver may be observed, but the process of checking drivers’ speed in isolation does not allow the underlying root causes of that driver’s speeding to be deduced and corrected. These root causes could lie within the management arrangements of the TOC, such as inadequate arrangements for driver training on a route, or poor systems of supervision. Equally, if no drivers from a particular TOC were found speeding, it would be wrong to assume that it must be complying with its RSC commitments because the TOC could employ experienced and conscientious drivers who obey speed limits, despite poor training or management supervision.

161. There were conflicting views between senior staff in different Zones about the role of the Zones in using the information gathered from monitoring activities. Some thought they were only responsible for confirming that applicable RGSs were being met, and that S&SD were responsible for ensuring TOC compliance with its RCS. This perception was reinforced by the limited information gathered by the Zones on TOC safety performance. Other senior staff considered that they were responsible for using identified RGS non-compliance as a route to alerting themselves and S&SD to possible RCS non-compliance.
162. In addition to the monitoring of TOC safety performance directly (through the “non-intrusive” monitoring described above), Zones also monitor their own performance and that of their staff. This monitoring provides further information on the safety performance of TOCs as a by product. For example, the monitoring of signal telephone communication between Zone signallers and TOC train crew provides the Zone with information on the performance of its own staff and, coincidentally, those of the TOC.
163. Generally, the results of this monitoring were also raised at the monthly Safety Interface meetings with the particular TOCs where remedial actions can be agreed.
164. Staff within the Zone were tasked with producing 4 weekly “Safety Information Reports (SIR). These are a summary of information collected by the Zone from a number of sources. The report focuses on certain key performance indicators (KPIs). While the list of KPIs is extensive, with some giving information that does relate to the safety performance of TOCs (e.g. the numbers of SPADs) none of the KPIs focus directly on the safety performance of TOCs or the effectiveness of Railtrack’s own role in enforcing compliance by TOCs with their own RSCs.
165. Another source of monitoring information available to the Zones on the performance of TOCs is that gathered from the investigation of accidents or incidents. Depending on the severity of the incident there are a number of clearly defined investigation processes within Railtrack. All these investigations produce recommendations for action by Railtrack and/or the TOCs, as appropriate. It was a strength that an investigation involving one TOC and one Zone could lead to recommendations being sent to all Zones and all TOCs for action.
166. Set timescales exist for the completion of an investigation and subsequent acceptance of the associated recommendations by the safety review group. However, these timescales for completion and acceptance of recommendations were rarely met. The problems relating to timescales had been recognised and discussed in the Green Paper “The future of Accident Investigation in the Railway Industry” (May 1999).

167. Recommendations arising out of these investigations were placed onto a central database managed within Railtrack Line Assurance and Safety Directorate.
168. Some tracking of actions placed on Railtrack Line occurs up to and including the acceptance of the recommendations. There is no tracking through the central database by A&SD of the implementation of actions by Zones or TOCs.
169. There was no evidence of any trend analysis of the information in the central database to identify common issues in terms of types of incident and recommendations for action. The central database was poorly structured to provide any trend analysis at all. For example, it was not possible to identify incidents and recommendations associated with a particular TOC, nor to determine if the recommended actions had been completed.
170. On occasions it was not clear within the wording of the recommendations, what action was required by the TOC or Zone to satisfy the recommendation. There was a concern expressed to us that as a result of this sometimes little or no genuine action resulted from an investigation.
171. In summary, although there was a process that ensured investigations were done and recommendations were made, accepted and widely communicated to those involved within the industry, it was found again that recommendations and actions arising from them were not properly monitored to ensure their final implementation.
172. Looking at the whole process of monitoring carried out by Railtrack S&SD and Zones, directed towards TOC performance, the following conclusions were drawn:
 - the need to carry out monitoring of TOCs in order to satisfy Railtrack's RTSC commitments has been recognised;
 - processes have therefore been established for monitoring TOCs at different levels within the company;
 - Railtrack has already identified certain weaknesses in these monitoring processes and is taking action to try and overcome them.
173. However, there is little tracking to confirm implementation of actions by TOCs whether these arise from audit, day to day monitoring or incident investigation. Also, all of the monitoring information is not collated into a central place within Railtrack where a picture of a TOC's total safety performance and RSC compliance can be drawn.

Principal Findings

174. **Railtrack have recognised the need to monitor the compliance of TOCs with their RSCs and have implemented processes to achieve this, primarily through audits.**
175. **The monitoring processes of both Zones and S&SD were undermined by the failure to establish effective processes to ensure that actions were implemented by the TOCs.**
176. **Railtrack's monitoring concentrates on reactive aspects of TOC safety performance and there is a lack of trend analysis of that information.**
177. **All of the safety performance information on a TOC is not collated into a central place within Railtrack where a picture of a TOC's total safety performance and RSC compliance can be drawn,**

AUDITING

Key Issue:

Is there adequate auditing of the management arrangements for controlling access of TOCs to the infrastructure?

178. The auditors were interested in:
 - whether the management arrangements for controlling access of TOCs to the infrastructure were subject to audit;
 - the types of audits that were undertaken;
 - the methodology used, including sample and content;
 - the selection of auditors and their competence;
 - the standards or benchmarks upon which judgements would be made.

Findings

179. The S&SD processes, including those for the assessment, acceptance, review and change to TOC RSCs and for the compliance audits of TOCs have been independently audited and checked by BSI as part of the Directorate's ongoing registration under ISO 9002. This is a quality management systems audit and checks S&SD compliance with its own documentation i.e. predominantly answering 'are they doing things right?' rather than considering 'are they doing the right things?'.

180. S&SD had recently carried out an audit of Railtrack Line to assess compliance with the high level senior commitments in the Railtrack RSC. Apparently this was the first audit of this type since privatisation. A new protocol was devised for this audit and S&SD arranged for independent validation of the methodology. The audit was restricted in its scope in that it did not extend to considering the activities for monitoring of the day to day safety performance of TOCs.
181. S&SD also undertake other audits of Railtrack Line activities such as the fit for purpose audits of RGSs, compliance with RGSs and technical audits of problem areas with particular RGSs.
182. A&SD undertake Railway Safety Rating System (RSRS) audits in conjunction with the A&S managers in Zones on Railtrack Line activities. There is a desire to move away from this type of audit. It has been recognised within A&SD that the RSRS system encourages improvements targeted at increasing overall ratings, rather than improvements to the safety management system for maximum effect. Zone Directors have salary incentives linked to the RSRS rating they achieve in their Zone. Concerns were raised by some people interviewed that the RSRS audit system was being incorrectly applied in that auditors may not always be properly trained and that the protocol may not always be properly applied. The RSRS system includes a component on the Zone's relationship with TOCs and covers their role in RSC assessment, their interface with operators, how they monitor compliance, their role in audits and follow-up of corrective actions.
183. However, the monitoring of TOCs is a relatively small element within the RSRS audit and it is not clear how the quality of the monitoring arrangements is judged.
184. A&SD have planned a wide range of audits for this year covering a broad scope of activities on the network. As discussed earlier, it had been recognised that the number of planned audits needed to be rationalised, with integration where possible. They had planned a desk top audit of TOC involvement in accident investigation and formal inquiries for August 1999 but the records indicated that this audit had not yet been started.

Principal Findings

185. **S&SD's processes for the assessment, acceptance, change, review and audit of TOCs' RSCs have been independently audited and registered to ISO 9002.**
186. **There has been little auditing activity of the processes in Railtrack Line which relate to the control of access of TOCs to the infrastructure.**

REVIEWING

Key Issue:

Is there adequate and sufficient performance review to ensure that lessons learned are effectively put into practice to improve the arrangements for control of access of TOCs to the infrastructure?

187. The auditors were looking to see how line management reviews overall performance and the effectiveness of the management system for controlling the access of TOCs. In particular :
- how the management system relating to the control of access TOCs was reviewed;
 - the review of performance indicators;
 - how remedial actions were reviewed through to conclusion.

Findings

188. As far as could be determined, Railtrack do not undertake a formal review of the overall safety performance of TOCs. The information gathering and analysis systems used in the organisation have not been designed to provide the data that would be needed to make decisions on TOCs' overall safety performance.
189. The RSC Regulations require TOC RSCs to be reviewed every 3 years but re-acceptance of the case by Railtrack is not required. The review is generally undertaken by the TOC and notification that the review has been undertaken sent to Railtrack. Railtrack are not required, and do not have the opportunity, to reflect on the TOC's compliance with their RSC or its past safety performance as part of any re-acceptance of the reviewed RSC. This is a significant weakness in the control Railtrack is able to exercise over TOCs.
190. Evidence of review activity was found within Railtrack which covered a range of issues including safety performance. S&SD had recently started to 'risk rank' TOCs using the intelligence available to them to prioritise their audit programme. They have also undertaken a review of their criteria for RSC acceptance and are aware that the criteria does not closely align with the audit protocol. There was some evidence that Zones were looking for examples of best practice for incorporation in to the ZAM e.g. in preparing the new standard for monitoring of TOCs' safety performance.
191. There was a major review and reorganisation of the safety management arrangements within Railtrack which was undertaken 18 months ago when the roles and activities of S&SD, A&SD, and A&S managers in Zones were evaluated and responsibilities assigned.

192. The 'close out' of inquiries and investigations involving TOCs was considered to be when the necessary actions had been agreed, not when completion of the action had been confirmed, as expected. There was little co-ordination of the monitoring of close out of actions. In addition, some recommendations from formal inquiries, held some time ago, had still not been fully implemented by all TOCs. There was little evidence to demonstrate that Railtrack were reviewing TOC progress with actions and recommendations from formal inquiries. Railtrack were unable to demonstrate to us that actions placed on TOCs had been tracked through to completion.
193. Although records of recommendations from formal inquiries and investigations were being kept they were not being reviewed to identify trends in immediate or underlying causes or common features.
194. As discussed earlier, TOCs produce their own plans to support the RGSP. There was little evidence that Railtrack reviews TOC achievements against these plans. It is understood that a recent review of all the plans had identified that there was not a good fit between them in that the sum of the parts could not deliver the overall Group plan.
195. Railtrack have developed a range of KPIs which they use to monitor the overall performance on the network. Quarterly reports including performance against KPIs were reviewed by ExCo and progress with Zones' improvements in performance was monitored. The KPIs seen were primarily activity based and did not appear to measure the quality of these activities. The indicators appeared to be focused on their own performance and any measure of a TOC's performance appeared to be incidental. In our view the KPIs chosen were not helpful to the organisation in assessing how effective any corrective action has been.
196. TOCs receive quarterly and monthly reports of the KPIs. The TOC visited found the information provided of only limited use and have asked not to be provided with certain parts of the reports.
197. Staff in Railtrack have difficulty when monitoring trends shown by the KPIs in establishing why any indicated improvement had taken place. This meant staff had little confidence that these improvements would be maintained in the future.

Principal Finding

198. **Railtrack do not undertake a formal review of the overall safety performance of TOCs. Information gathering and analysis systems used in the organisation have not been designed to provide the data that would be needed to make decisions on TOCs overall safety performance.**

APPENDIX 3

CONTROL OF THE INFRASTRUCTURE: CASE STUDIES

LINESIDE SECURITY - AN EXAMPLE OF STANDARDS IN PRACTICE

Background

1. Trespass and vandalism is a significant hazard on the railway; it is ranked as the most significant hazard within the RTSC. Reducing deaths and injuries from trespass and vandalism is a key objective within the Railway Group and Railtrack Line plans for 1999. Railtrack have a number of trespass and vandalism improvement initiatives planned or underway at the moment some of which relate to lineside security.

Relevant Standard

2. Railtrack recognise the importance of trespass and vandalism and Railtrack Group Standard, "GC/RT5201" deals with the issue. The Standard requires that, "hazards relating to unwanted intrusions and unauthorised access to all sections of the infrastructure, including stations, bridges and depots shall be identified and the risks assessed". The risks to be considered as part of the assessment are those from:
 - moving rail vehicles to persons with unauthorised access,
 - electrification systems to persons with unauthorised access,
 - large animals to moving rail vehicles,
 - vandals to moving rail vehicles (objects obstructing gauge, dropped from bridges etc), and
 - vandals to the infrastructure (including train control systems).
3. Factors to be considered when assessing the magnitude of the risks are listed in the Standard together with the range of security measures which should be considered for the control of risk.
4. Records are to be maintained to demonstrate that risks are as low as reasonably practicable and where security measures are adopted a specification and maintenance schedule is to be provided. The hazards applicable at each location are to be monitored and where changes are identified the risks should be reassessed and where necessary improved control measures implemented.

5. Suitable records should be maintained and physical inspections are to be carried out at suitable frequencies to check on derogation before preventive measures fail. Systems should also be provided to ensure that any necessary remedial action is carried out as soon as reasonably practicable and suitable records should be maintained of defects identified together with a programme of remedial action.

Findings

6. A variety of approaches were adopted in the Zones visited. Neither of the Zones were in compliance with the Group Standard and had "temporary non compliances" (TNCs) against them because they had not yet risk assessed all their fencing. The reasons for this were not entirely clear but in part there was a perception that the Standard was not realistic given existing resources and that activity was better concentrated at known problem areas. However there was a great deal of activity taking place in both Zones involving a wide variety of Railtrack personnel and their contractors as well as other companies such as TOCs and the British Transport Police.
7. Responsibility for implementation within the Zones is spread across a number of sections; track engineers, area delivery groups (ADG), and corporate affairs in relation to educating the public. Track engineers have responsibility for checking the fencing whilst carrying out track inspections. There was a favourable comment in one Zone about an "off track steward", who had been appointed to deal with this less technically challenging area leaving the track engineers to concentrate on the track. In one Zone, the delegated authority given to ADGs and of their success in dealing with particular problem areas based on their local intelligence was noted. However the business case for improvements to secure funding used "delay" and it was uncertain whether this will automatically cover safety issues. A play organised by one Zone and attended by a large number of school children aimed at educating pupils on the dangers associated with trespass and vandalism on the railway.

Conclusions

8. This example raises a number of questions about the use of Standards and resources.
9. It seems that the information used in the RTSC assessment has not been effectively used to inform the Standard.
10. The structure and wording of the Standard also seems inappropriate to achieve the best results. The Standard calls for risk assessment which is already a legal requirement. Although good guidance is given on the factors to be considered in assessing risks no guidance is given to assessors on the criteria or parameters which form acceptable minimum appropriate measures. As the issue is of national significance and similar problems and challenges can be anticipated across all Zones it seems that it would be cost effective to

provide examples of minimum standards for common or frequently encountered situations.

11. The use of a "loose" goal setting Standard to achieve consistent control of a significant risk seems inappropriate. Similarly the use of TNCs in the implementation of a Standard for a significant risk also seems unusual. In this case it is not clear how the overall position regarding compliance with the Standard can be assessed.
12. The resources to secure compliance with this Standard within a reasonable time are either inadequate or the Standard has been pitched at the wrong level or drafted in the wrong way to ensure effective implementation within a reasonable time. This indicates that the design and use of goal setting Standards warrants further examination as does the consideration of the resources necessary to implement a Standard.

INFRASTRUCTURE IMPROVEMENTS

Introduction

13. The auditors looked for evidence that the systems for infrastructure improvements gave due weight to the need for safety improvements.

Findings

14. The Station Regeneration Project was intended, amongst other things to rectify defects within stations. Surveys were carried out to categorise the defects and to cost remedial action. It was generally accepted that excessive stepping distances presented a risk at the train/platform interface. However it appeared that non-standard platform gauging (i.e. excessive stepping distances) was not included in the original project scope. No clear rationale for the exclusion was forthcoming even though there is widespread non-compliance with relevant Standards.
15. There was guidance produced to clarify when platform gauging should take place - e.g. when more than 30% of a platform was to be rebuilt (or in response to an Improvement Notice). In addition there were some good initiatives which recognise the risks at the train platform interface including some examples of platforms being regauged even though they fell outside of the above guidance.
16. In the case of renewal projects, there was evidence that although maintenance contractors were party to decisions to renew assets, there were cases where decisions to defer renewals were taken without reference to the contractor. Often this was accompanied by a need to increase the level of maintenance activity to keep the asset functioning within acceptable limits. Deferring work agreed as necessary aggravates the situation. There were some comments from contractors in Stewardship Reports which suggested

their concerns over the condition of certain assets e.g. "...concern over potential for serious wrong side failures." However it was said to us that safety was never compromised by a deferral. In the limited time available this complex and important matter could not be pursued further.

17. The Area Delivery Groups (ADG) were popular with staff because delegated authority allowed them to deal with local issues more effectively. However repeated reminders were made to us that the focus was on performance and to obtain funding the Groups have to produce a business case based on performance gain - minutes delayed. Business cases produced in this way could favour some routes and would not necessarily be based on the safety need. Assurances were given that when safety concerns were raised, they were addressed and there were examples of safety related work sponsored by ADGs such as cable burying.

Conclusion

18. There were a number of examples of infrastructure improvements taking place which included safety related issues. But the impression was that it relied on local knowledge and expertise to identify a safety need. There was little evidence that a rigorous and consistent process was applied when considering how to prioritise funding for competing and/or conflicting proposals and that safety was afforded equal weight to other aspects

END PRODUCT CHECKS - EPCs

Introduction

19. End Product Checks are hardware inspections and procedural checks of a statistically significant sample of important parts of the infrastructure and the process is covered by Line Standards. Items checked are assessed as either passing or failing the check. The quantity of checking can be varied depending on the results of the sample checks undertaken. It is intended that the results of the checks on the sample should be representative of the state of those parts of the infrastructure covered by EPC, as a whole. The EPC system, which was introduced in response to an element of HMRI's "10 Key Actions." is a significant part of Railtrack's active monitoring system and has been added to the existing monitoring arrangements

Findings

20. There was a substantial amount of activity on the EPC system in the Zones. Checks were carried out against an annual plan, progress with which was being regularly monitored. In general the planned number of checks were being made, with some local shortfalls. The pass and fail rates were also monitored. These varied from less than 1% to 40% which is a surprising variation. Remedial actions were monitored by the Infrastructure Contracts organisation and corrective actions (CARs and Contract Instructions) issued

by the Infrastructure Contracts Manager. It is concerning that Railtrack's monitoring systems did not effectively improve such failures within prompt timescales.

21. In practice many checkers found it more effective to deal with the issues at the time of the check. Whilst CAR's are issued to deal with management system failures there are many instances where contract instructions are issued to deal with issues which the checker does not consider are 'system wide'.
22. A considerable number of remedial actions were found to be outstanding. The owner of one CAR which was 6 months old was interviewed and he felt that the process for close out was too involved. Although the close out of CAR's (but not Contract Instructions) is the subject of KPI measurement clearly more could be done to improve the above situation. It was also said that a contractor was doing fewer checks because they knew Railtrack would check anyway via the EPC system.
23. There was also a perception in the Zones that some of the checks were little more than a number counting activity (e.g. pandrol clips) and the view was expressed, over and over again, that the preoccupation with achieving the number of checks required in the plan was inappropriate in most circumstances and that more attention should be focused on quality rather than quantity. There was also criticism of the overlap between the EPC system and other monitoring activities in relation to level crossings for example. In addition it was far from clear to us that Railtrack extracted the best use from the vast amount of data the system generates e.g. monitoring information was not collated to provide a full picture of a particular contractor's performance.
24. It was generally felt by the Zones that the EPC system provides useful information on the condition of the infrastructure as well as an indicator of the general maintenance standards. Managers felt it had served the company well and the system had been improved. Staff felt the system could be further improved by:
 - taking into account the practical experience of the users of the system and by introducing more scope for managers to use their engineering judgement,
 - ensuring the checks take account of changes to standards and procedures.

APPENDIX 4

SAFETY RESPONSIBILITIES OF RAILTRACK LINE

- management, control and signalling of the infrastructure to ensure the safe movement of trains;
- management and safe operation (including emergency planning and evacuation) of any stations operated by Railtrack;
- management of contractors by selection, safety monitoring and audit to ensure maintenance and renewal of the infrastructure is carried out in accordance with the required safety standards;
- safety management check of the activities of a train or station operator to the extent that they affect the safety of the infrastructure and/or the safe movement of trains;
- ensuring outside parties carrying out works which may affect the infrastructure do not import unacceptable risk;
- the management of safety for all major changes to the infrastructure;
- ensuring independent check procedures are in place for the design of all works affecting the infrastructure;
- negotiation and agreement of contracts with operators to provide them with a safe, efficient and cost effective service;
- stewardship of infrastructure assets to ensure they remain fit for purpose at all times and taking whatever action may be necessary to ensure the safety of all users of the infrastructure;
- train planning and time tabling;
- creation, exercising and subsequent implementation when necessary of contingency and emergency plans in conjunction with train operating and infrastructure maintenance companies;
- investigation of basic cause of any accidents, incidents and failures which have affected the integrity of the infrastructure and the implementation of any necessary follow up action;
- keeping of statutory records and certificates and their presentation to the regulatory authorities as required;

- ensuring that the business operates in compliance with the Railtrack Railway Safety Case;
- monitoring that train and station operators operate in compliance with their railway safety cases;
- route acceptance of new and modified traction and rolling stock.

APPENDIX 5

LICENCE CONDITION 3: RAILWAYS GROUP STANDARDS

1. Directorate of Safety and Standards

The licence holder shall establish and maintain within its organisation a directorate to be responsible for safety and standards. The Directorate shall have no commercial functions or responsibilities other than those relating to safety and standards and its head shall be responsible and report directly to the chairman of the board of directors of the licence holder. The licence holder shall ensure that at all times the Directorate shall have funds which are sufficient for the proper carrying out of its functions.

2. Railway Group Standards Code

The licence holder shall:

- (a) procure that the Directorate in consultation with participating railway operators likely to be materially affected shall prepare a Railways Group Standards Code in accordance with this Condition;
- (b) subject to paragraph 8, comply with the provisions of the Railway Group Standards Code; and
- (c) comply with any Railway Group Standards authorised under the Code so far as applicable to licensed activities.

3. Purposes

The Railways Group Standards Code shall be a code prepared by the Directorate whose purpose is to ensure the safe operation of the licence holder's network and railway assets used or to be used on or in connection with the licence holder's network ("the Purpose") having due regard to the need:

- (a) to promote the use and development of the licence holder's network;
- (b) to promote efficiency and economy on the part of the licence holder and other persons providing railway services on or in connection with the licence holder's network;
- (c) to promote competition in the provision of such railway services;
- (d) to impose on the licence holder and other persons providing such railway services the minimum restrictions which are consistent with the Purpose; and
- (e) to enable the licence holder and such other persons to plan the future of their businesses with a reasonable degree of assurance.

4. **Contents**

The Railway Group Standards Code shall:

- (a) authorise the Railway Group Standards in force on 31 March 1994;
- (b) establish a set of procedures for the grant or refusal of authorisations of new Railway Group Standards or the amendment or abolition of existing Railway Group Standards which:
 - (i) provide for a fair and balanced representation and participation in such procedures by experienced and competent persons from all classes of participating railway operators likely to be materially affected;
 - (ii) provide for proposals for relevant authorisations to be fully and fairly considered (other than any which are trivial or vexatious), and for full and proper consultation with the Health and Safety Executive;
 - (iii) provide for any participating railway operator aggrieved in any material respect by a decision of the Directorate to have the matter reconsidered by the Directorate, and thereafter, if dissatisfied with the results of such reconsideration, to have the matter referred to the Regulator for determination after consultation with the Health and Safety Executive;
 - (iv) provide for the recovery of a fair proportion of the costs of any determination whether or not to grant a relevant authorisation from any participating railway operator which has proposed such authorisation, whether or not the proposal in question shall have been successful; and
- (c) require the Directorate, where it has reasonable grounds for considering that any revision of a Railway Group Standard is required, to propose such a revision and pursue it in accordance with the procedure referred to in sub-paragraph (b).

5. **Publication**

The licence holder shall:

- (a) publish the Railway Group Standards Code and any modification there to in such form or manner and with such frequency as the Regulator may require;
- (b) provide a copy of the Railway Group Standards Code and any modifications hereto to every licence holder, the Franchising Director, the Health and Safety Executive and the Regulator;

- (c) publish a catalogue of current Railway Group Standards authorised under the Railway Group Standards Code;
- (d) provide a copy of the Railway Group Standards Code and any Railway Group Standard authorised or proposed to be authorised under the Railway Group Standards Code and of the catalogue referred to in the sub-paragraph (c) to any person requesting a copy. The licence holder may charge for the provision of copies under this sub-paragraph provided that such charge shall not exceed any amount the Regulator may specify.

6. Records of compliance

The licence holder shall maintain such records concerning its compliance with the Railway Group Standards Code as the Regulator may reasonably require.

7. Assistance for participating railway operators

The licence holder shall procure that the Directorate shall establish, maintain and operate such procedures as shall be sufficient to ensure that any participating railway operator which has applied to the Directorate for the purposes of this paragraph shall be provided with such information, advice and assistance (excluding training) as may reasonably be required to determine the application of any Railway Group Standard to that operator or to railway assets of which it is or proposes to be the operator. The licence holder may charge a fee for any such information, advice or assistance. Any such fee shall not exceed an amount which in, in the opinion of the Regulator, reasonable.

8. Derogations

The licence holder may, in so far as the Regulator consents, be relieved of its obligation to comply with the Railway Group Standards Code in respect of parts of the licence holder's network.

9. Interpretation

In this Condition:

- | | |
|----------------------------------|--|
| "Directorate" | means the directorate responsible for safety and standards established pursuant to paragraph 1; |
| "participating railway operator" | means a person: <ul style="list-style-type: none"> (i) who is licence holder; or (ii) who has applied to be a licence holder and whose application has not been withdrawn or rejected. |

“Railway Group Standards”

means:

- (i) technical standards with which railway assets or equipment used on or as part of railway assets must conform; and
- (ii) operating procedures with which the operators of railway assets must comply; and

“relevant authorisation”

means authorisation of a new Railway Group Standard or the modification or abolition of an existing Railway Group Standard.

APPENDIX 6

RESPONSIBILITIES OF RAILTRACK'S SAFETY AND STANDARDS DIRECTORATE

- determining, consulting and gaining Railtrack Board support for safety policies applicable to the overall control of safety risk on the infrastructure and monitoring their delivery;
- preparing, consulting and gaining Railtrack Board endorsement of an annual Railway Group Safety Plan which will contain risk-based objectives to be met by Railtrack Line, and train and station operators;
- managing the process by which mandatory Railway Group Standards are produced, revised, accepted, authorised and issued;
- acceptance of safety cases presented to it by train and station operators under the Railways (Safety Case) Regulations 1994, and the validation of ongoing material revisions;
- auditing compliance with Railtrack's own Railway Safety Case internally and by Railtrack Line and its contractors;
- auditing train and station operators' compliance with their Railway Safety Cases;
- auditing compliance of all parties with Railway Group Standards;
- monitoring the efficacy of Railway Group Standards;
- receiving specified safety performance information to determine the efficiency of risk control measures, plus development and agreement to implement of appropriate action plans;
- approval of vehicle conformance and acceptance bodies which certify rolling stock as compliant with Railway Group Standards;
- appointment of Independent Chairman for inquiries into major incidents;
- monitoring the implementation of inquiry recommendations and enforcement notices.

APPENDIX 7

OUTLINE CONTENTS OF A TYPICAL SAFETY INTELLIGENT REPORT (SIR), - BASED ON EXCO SIR 5 OCTOBER 1999

Section 1 - Executive Summary - highlighting key issues.

Section 2.1 - Safety KPIs - corporate performance against plans and targets.
This section includes:

- Chart 1 - showing a corporate proactive KPI performance for 1999/2000 - performance against plan and target;
- Chart 2 - corporate reactive KPI performance for 1999/2000 - year to date performance against last year (1998/99), and target;
- Chart 3 - directorate proactive KPI performance 1999/2000;
- Chart 4 - zone reactive KPI performance 1999/2000 - year to date performance;
- Chart A - accident investigation KPI 5;
- Chart B - contractor corrective action requests 1999/2000;
- Chart C - all accidental equivalent fatalities (per million train miles);
- Chart 4 - significant train accidents per million train miles - 1975 to date;
- an annex containing a chart comparing zone performance against proactive safety performance indicators (KPIs);
- a chart showing relative zone performance against reactive safety performance indicators.

The section ends with a description of the current proactive and reactive KPIs.

Section 2.2 - environmental performance indicators (EPIs). This section includes a number of charts and tables including

- An overview of proactive corporate environmental indicators;
- Chart EPI1 - reactive environmental incidents;
- Chart EPI3 - reactive approaches from authorities;
- Chart EPI4 - proactive progress against Environmental Plan 1999/2000;

- Chart EPI5 - proactive staff trained;
- Chart EPI8 - reactive legal notices/prosecutions.

A chart showing zonal performance against environmental indicators. The section concludes with a summary of the current environmental performance indicators and targets.

Section 3 is entitled "report" and contains updates on progress with a range of issues. Sections include:

- Safety and risk management. This includes sections on the TPWS project progress report, update on HMRI ten key actions, update on HMRI inspection of SPAD management systems;
- Contractor and workforce safety. This contains reports on the new contractor assurance framework and project sentinel;
- Railway safety case and compliance - nothing reported this month;
- Corporate standards. This includes information on the development of the new Rule Book and project RELEASE amongst other things;
- Environment;
- Acceptance issues which deals with such things as track and rolling stock issues;
- Compliance issues;
- Progress on previous SIR recommendations. This includes 3 appendices which deal with:
 - the 1998 RSRS/technical audit CAR summary report,
 - the 1999 RSRS/technical audit CAR summary report, and
 - ExCo actions progress report.

Appendix A provides a summary of progress with the HMRI 10 key actions. This relates to directorate self-checks and main contractors 10 key action returns which were being analysed at that time.

The report expresses concern over the nature of the replies and the degree of non-compliance which is being unearthed. The following quote is taken from Appendix A.

"If the returns are correct, (there is little reason for any contractor to falsely report this lack of compliance), it begs the question of how Railtrack's monitoring regime, in all its forms, has allowed this to pass unnoticed for so long. The company needs to address its monitoring regime in order that all contracts, (not just IMC) are subject to regular HQ review to ensure that this situation is not perpetuated".

The appendix concludes with a comment that on completion of the reporting returns Railtrack will have a fairly comprehensive view of what needs to be done to bring the industry into compliance.

APPENDIX 8

RAILTRACK'S PROACTIVE AND REACTIVE SAFETY KEY PERFORMANCE INDICATORS (KPIs) INSTRUCTIONS FOR COMPILATION 1999/2000

PART A: PROACTIVE SAFETY KPIs

SAFETY MANAGEMENT SYSTEM (SMS) COMPONENT No. 1 LEADERSHIP AND ADMINISTRATION

1.1 Management Support - Safety Tours

Number and % of locations visited in Safety Tours carried out by the Director or nominated Senior Managers, compared to Plan.

Target: 100% of Plan, using cumulative actual number carried out compared with cumulative planned number.

Purpose: to measure the extent of the Directors' commitment to undertake safety tours throughout their area of responsibility.

SMS COMPONENT No. 2 Human Factors

2.1 Human Factors - Signaller and Crossing Keeper Competence

To measure the progression of the continuous assessment of signallers and crossing keepers against that planned.

Target: 100% of plan measured quarterly.

Purpose: to ensure that measurement of signallers and crossing keepers competency is planned and that achievement matches the plan.

2.2 Human Factors - Job Orientation

No. and % of new staff/transferees receiving local job orientation within 7 working days of commencing employment or transferring to their permanent work place.

Target: 100% of numbers recruited or transferred. The target is calculated on a period basis.

Purpose: to measure the timeliness of local job orientation.

SMS COMPONENT No. 3 Planned Inspections

3. No. and % of the planned safety inspections that took place compared to the number scheduled.

Target: 95% of Plan, using cumulative actual numbers compared with cumulative scheduled number.

Purpose: to indicate the extent to which planned inspections are being carried out.

SMS COMPONENT No. 4 Risk Assessment

4.1 User Worked Level Crossings, Bridleway Crossings

There will be two KPIs:

4.1A No of crossings in category A status (and % of total no of category A crossings) which have been risk assessed.

4.1B No, and % of total no of category A crossings requiring improved risk controls that have been implemented.

Targets:

4.1A All Category A crossings are to be assessed by 31 December 1999.

4.1B All Category A crossings that require identified additional controls, shall have been modified by 31 December 2001.

Purpose: to indicate compliance with the timescales for implementation detailed within RT/LS/P/026.

4.2 Risk Control at Automated Level Crossings

No and % of total number of Automated Level Crossings within the Zone where the fatality risk level to a regular road vehicle user is better than 1 in 100,000, or the existing risk level has been demonstrated to be as Low as Reasonably Practical.

Target: target is 100% completion by 31 March 2000.

Purpose: to indicate whether the risk change management of automated level crossings is being undertaken.

SMS COMPONENT No. 5 Accident Investigation

5. **No. and % of selected HSE reportable accidents/incidents which have been adequately investigated and concluded in each period, compared to the total number of active cases ie investigations of such events in progress at start of period plus any new events occurring in the period.**

Target: a minimum of 75% of all incidents in progress at the beginning of the period plus new events occurring to have been adequately investigated and concluded in each period.

Purpose: to indicate whether accidents and incidents are being investigated appropriately in accordance with Railway Group Standards.

"Adequate investigation" includes:

- investigated in accordance with GO/RT3434/3

SMS COMPONENT No. 7 Emergency Planning & Preparedness

7. **Number and % of tests (which includes table top exercises) of the emergency plans undertaken, compared to the Plan of those scheduled in advance.**

Target: 100% of Schedule, using commutative actual number compared with the cumulative number scheduled.

Purpose: to indicate the number of test planned each year and whether they have been completed.

SMS COMPONENT No. 8 Safety Critical Work

8.1 Safety Critical Work - Drug Testing

Number and % random drugs tests on Railtrack Safety Critical post holders and key safety post holders actually carried out compared to those notified by the computer to be undertaken in the period.

Target: 90% of computer requests, using cumulative numbers completed, compared with cumulative numbers requested by the computer.

Purpose: to demonstrate that by the end of each year that Railtrack has discharged its responsibility to carry out random drug tests on at least 5% of its Safety Critical Post holders.

8.2 Safety Critical Work - Periodic Medicals

No. and % periodic medicals carried out on Safety Critical post holders, compared to the number scheduled to be carried out in the period concerned.

Target: 100% of schedule, using cumulative numbers carried out, compared with cumulative numbers scheduled.

Purpose: to demonstrate that on going medical surveillance of Safety Critical staff is timely and on-going.

SMS COMPONENT No. 10 Infrastructure Projects

10.1 Handback Certificates

No. and % of handback certificates overdue compared to the total number of certificates that were returned or due to be returned in the period.

Target: No certificates are overdue in the period ie 90% not overdue, calculated on a period basis.

Purpose: to demonstrate compliance with handback in accordance with the Line Standards (clause 5.5.3 of RT/D/P/033).

SMS COMPONENT No. 13 Audit Arrangements

13. No. and % audits completed in the period concerned, compared to the number scheduled for completion in the annual integrated audit plan for the Directorate concerned.

Target: 100% of Plan. Target calculated on a cumulative basis.

Purpose: to indicate whether the on going integrated audit plan is progressing satisfactorily.

SMS COMPONENT No. 15 Communications

15.1 Internal Communications - Safety Briefing

No. and % of total staff in the Directorate briefed in a quarterly cycle, compared to the total number of staff.

Target: 90% of scheduled number to be briefed. Target calculated on a quarterly basis.

Purpose: to measure the number of staff who have received scheduled internal safety briefings.

15.2 External communications with Operators, Contractors, etc

No. and % safety meetings (with TOCs, Station Operators or Contractors as defined in Railtrack's RSC) which have been held, compared to those scheduled.

Target: 100% of Schedule, using cumulative numbers of meetings held, compared with cumulative numbers scheduled.

Purpose: to indicate whether external safety meetings are being held with TOCs, Station Operators and Contractors as required in Railtrack's RSC.

SMS COMPONENT No. 18 Contractors

18.1 Overdue Corrective Action Requests (CARs)

No. and % of corrective action requests on contractors which are overdue, compared to the absolute number of active CARs ie those in existence at the beginning of the period concerned, plus those issued during the period.

Target: 100% of CARs that are active are not overdue. This target is calculated on a period basis.

Purpose: to indicate that contractor deficiencies are being corrected, within the timescales specified for each CAR.

SMS COMPONENT No. 18 Contractor Safety

18.2 Possession Checks

The number of possession/protection checks carried out each period compared to those scheduled for the period.

Targets: 100% of those scheduled, using cumulative actual number compared with the cumulative number scheduled.

Purpose: to indicate the extent to which contractor safety associated with Rule Book T(ii) and T(iii) is being monitored.

PART B: REACTIVE SAFETY KPIS

IA Numbers of All Accidental Equivalent Fatalities per Million Train Miles.

Target: no worse than 0.57 per million train miles. The target is based on the Railtrack objective to halve this rate over the next ten years, and is the basis used by S&SD for monitoring overall railway performance.

Purpose: to measure overall personal harm arising on the railway, during a period of organisational change.

IB Possession Irregularities

Number of irregularities within possessions compared to the total number of possessions taken.

Target: Each Zone will agree their own targets with Director, Assurance & Safety.

Purpose: monitor irregularities within possessions to ensure that action is taken to maintain and improve safety.

SAFETY PLAN OBJECTIVE NO 3: PUBLIC SAFETY

3A Numbers of Accidental Fatalities due to trespass or vandalism per 100 route kms.

Target: Each Zone will agree their own targets with Director, Assurance & Safety.

Purpose: monitor the extent of loss due to trespass and vandalism on Railtrack's Controlled Infrastructure to ensure that effective action is being taken to maintain and improve safety.

SAFETY PLAN OBJECTIVE No 4 - WORKFORCE SAFETY

4A Safety Critical Work - Control of exceedances to working time pattern

Number of individual working time patterns exceedances compared to the total number of Railtrack Safety Critical postholders in the period concerned (expressed as rate per Safety Critical postholders)

Target: 0.2 per Safety Critical postholders. Target calculated on a period basis. (NB This is the minimum target level and each Zone may set a more stringent target from period 1 1999/2000).

Purpose: to indicate that working time patterns for Railtrack SCW postholders are adequately controlled.

4B Contractors Safety

Target: Better than previous year's Zone rate per 1 million hours worked measured on a cumulative basis. This means the cumulative rate for 1999/2000 is compared with the cumulative rate achieved in 1998/1999 (at the average level for 1998/1999 and not the year to date).

Purpose: monitor the rate of Contractor RIDDOR accidents to ensure that action is taken to continuously improve contractor safety.

5A Number of Significant Train Accidents per million train miles.

Target: within confidence limits of previous year's zone rate per million train miles, measured on a cumulative basis. This means the cumulative rate in 1998/99 is compared with the cumulative rate for 1997/98 (at average level for 1997/98 and not year to date). Nationally 1997/98 was the lowest level ever achieved.

Purpose: to monitor key incidents which are publicly reported each year by HMRI, to ensure early awareness of public's likely reaction, and to ensure action is taken to maintain and improve safety.

5B Number of "Serious" SPADs per 1,000 signals

Target: Each Zone will agree their own targets with Director, Assurance & Safety.

Purpose: to monitor key 'high profile' incidents to ensure action is taken to maintain and improve safety.

5C Number of Technical (Category B) SPADs per 1,000 signals

Target: the % reduction set by each Zone in accordance with Action 5.3.2 of Railtrack Line 1999/2000 Safety Plan. All Zone targets are monitored on a cumulative basis, as they are targets relating to the whole year.

Purpose: to monitor such incidents to ensure action is taken to maintain and improve safety.

APPENDIX 9

RAILWAY GROUP SAFETY PLAN 1999/2000

1. LONG TERM RISK MANAGEMENT STRATEGY FOR THE RAILWAY GROUP

- 1a - The Railway Group will aim to half the annual number of accidental equivalent fatalities per million train miles by 2009.
- 1b - During 1999/2000, Railway Group members will review their change management processes to ensure that they are suitable and robust.
- 1c - The Railway Group will ensure that identification of potential safety improvements is an integral part of the planning of schemes for new and renewed railway equipment, so that every opportunity is taken to introduce reasonably practicable safety improvements.

2 PASSENGER SAFETY AND SECURITY

- 2a - The Railway Group will aim to ensure that the risk of accidental passenger fatality will be no greater than one in 100 million passenger journeys (MPJ) per annum by 2009.
- 2b - The Railway Group will aim to ensure that the risk of accidental passenger major injury will be no greater than one in 7.5 million passenger journeys by 2009.
- 2c - During 1999/2000 Railway Group members and the BT Police will collaborate to develop and implement strategies to reduce the incidence of assault and robbery on the railway.

3 PUBLIC SAFETY

- 3a - The Railway Group will aim to ensure that the risk of accidental fatality to members of the public will be no greater than 0.63 per million UK population by 2009.
- 3b - Reasonably practicable schemes will continue to be implemented with the aim of ensuring that automated level crossings expose the individual occupants of road vehicles to a risk of fatality no greater than one in 100,000 regular users per annum by the year 2000.
- 3c - All user-worked level crossings will be risk-assessed using a standard methodology and reasonably practicable controls introduced where necessary by 2004.

- 3d - During 1999/2000, Railway Group members and the BT Police will develop and implement schemes to reduce the incidence of trespass on the railway.

4 WORKFORCE SAFETY

- 4a - The Railway Group will aim to ensure that the risk of accidental fatality to any group of workers on Railtrack-controlled infrastructure and stations will be no greater than one in 20,000 per annum by 2009 and the risk of accidental major injury no greater than one in 750 by 2009.
- 4b - The competence standards applied to all workers shall be reviewed and competence assurance systems enhanced during 1999/2000.
- 4c - The communications protocol will be implemented and adopted by safety critical staff during 1999/2000.

5 CATASTROPHIC RISKS

- 5a - Railway Group members will continue to implement reasonably practicable means to reduce the events with a potential to cause catastrophic consequences.
- 5b - Railway Group members will continue to collaborate in the progressive implementation of reasonably practicable means to reduce the numbers of Signals Passed At Danger (SPADs) and mitigate the effects of those that occur.
- 5c - During 1999/2000, Railway Group members and the BT Police will develop and implement schemes to reduce the incidence of vandalism on the railway.

APPENDIX 10

SUMMARY OF RAILTRACK ZONE RSRS AUDIT SCORES FOR ELEMENTS 3, 5 AND 9.

Source:RSRS audit reports completed late 1998 and early 1999

Zone		1	2	3	4	5	6	7
Active Monitoring Elements								
RSRS Element Score	Max Score							
3.1 Planned General Inspections	140	117	125	127	117	140	63	100
3.2 Follow up system	115	50	80	85	80	115	15	80
3.3 Inspection Report analysis	50	0	25	0	0	50	0	0
3.4 Critical Parts/items	100	0	0	0	0	0	0	0
3.5 Preventative Maintenance	120	80	100	90	90	70	70	100
3.6 Special system inspections	40	10	36	37	40	32	14	27
3.7 Pre-use equipment inspections	50	0	35	11	42	0	30	33
3.8 Alternate sub - standard condition reporting system	40	30	40	30	30	0	30	40
3.9 Compliance requirements	50	0	0	0	20	0	0	0
Total Element 3 Score	705	287	441	380	419	407	222	380
9.1 Safety management system	150	75	135	105	130	150	55	80
Reactive Monitoring Elements								
RSRS Element Score	Max Score							
5.1 Accident/Incident Investigation system	300	225	263	216	233	257	193	218
5.2 Management participation	45	39	45	3	45	39	12	45
5.3 Major and high potential accident/incidents	70	70	70	55	70	0	0	55
5.4 Remedial action and follow up	120	80	105	35	65	105	70	105
5.5 Incident (near miss), reporting and investigation	60	35	55	45	55	50	10	50
5.6 Accident/incident report maintenance	70	70	70	70	70	70	70	70
Total Element 5 score	665	519	608	424	538	521	355	543

9.2 Consequence measurements	140	75	107	4	15	100	75	65
9.3 Cause and control analysis	170	74	122.5	6	129.5	113	10	108
Zone		1	2	3	4	5	6	7
Reactive Monitoring Elements								
RSRS Element Score	Max Score							
9.4 Property damage/process loss identification and analysis	100	30	50	0	65	75	10	50
9.5 Incident (near miss), analysis	60	0	35	10	55	60	15	10
9.6 Problem solving project teams	70	0	35	50	45	57	50	50
9.7 Perception surveys	100	0	0	0	0	0	0	0
Total Element 9 Score less 9.1	640	179	349.55	70	309.5	405	160	283

APPENDIX 11

GLOSSARY OF TERMS

ADG	Area Delivery Group
A&SD	Assurance & Safety Directorate
BR	British Rail
CAR	Corrective Action Report
CD	Compact Disc
CDP	Continuous Professional Development
CIRAS	Confidential Incident Reporting System
COMPASS	Combined Performance & Safety System
EA	East Anglia (Zone)
EPC	End Product Checks
FOC	Freight Operating Company
HMRI	Her Majesty's Railway Inspectorate
HSC	Health & Safety Commission
HSE	Health & Safety Executive
HQ	Head Quarters
ICM	Infrastructure Contracts Manager
ISRS	International Safety Rating System
KPI	Key Performance Indicator
LNE	London & North East (Zone)
MIM	Management Information Manager
OPRAF	Office of Passenger & Rail Franchising
ORR	Office of Rail Regulator
PICOP	Principal Controller of Operations
POPMAR	Policy, Organising, Planning, Monitoring, Audit, Review
RAR	Railtrack Asset Register
RGM	Railway Group Members
RGS	Railway Group Standards
RGSP	Railway Group Safety Plan
RISSC	Railway Industry Safety & Strategy Committee
ROSCO	Rolling Stock Leasing Company
RSC	Railway Safety Case
RSRS	Railway Safety Rating System
RT	Railtrack
RTSC	Railtrack Safety Case
RTLS	Railtrack Line Standards
SAB	Safety Advisory Board
SEHC	Safety, Environment & Health Committee (non executive)
SIM	Safety Interface Meeting
SIR	Safety Intelligence Report
SMART	Specific, Measurable, Attainable, Realistic & Timebound
SMC	Safety Management Committee
SME	Standards Management Executive
SMIS	Safety Management Information System
SMS	Safety Management System
SPAD	Signal Passed at Danger

S&SD	Safety & Standards Directorate
sSRA	shadow Strategic Rail Authority
SUP	Standards
TAA	Track Access Agreement
TOC	Train Operating Company
TOIM	Train Operations Interface Manager
TNC	Temporary Non-Compliance
ZAM	Zone Assurance Manual

