Responsibility for the regulation of health and safety on the railways was transferred from the Health and Safety Commission (HSC) and Health and Safety Executive (HSE) to the Office of Rail Regulation (ORR) on 1 April 2006.

This document was originally produced by HSC/E but responsibility for the subject/work area in the document has now moved to ORR.

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HSC
Health & Safety Commission

THE SOUTHALL RAIL ACCIDENT

INQUIRY REPORT:

Summary of Progress at February 2002

Southall Rail Accident Inquiry Report:

Summary of Progress at February 2002

The HSC published Professor John Uff's report of his Inquiry into the Southall Rail Accident on 24 February 2000. We have now reached the end of the two-year period set for meeting the recommendations.

The HSC recognises that the rail industry has made significant efforts to meet the requirements set out in the Southall Action Plan. Clear progress has been made on all the recommendations and key proposals are implemented, notably rules to ensure trains do not operate if vital safety systems including AWS are not working.

Professor Uff's Report identified many important issues of safety on the railways, some of which have been taken further forward by Lord Cullen's recommendations following the Ladbroke Grove Rail Inquiry. These included adequate training and competence assessment of staff, effective safety management systems, ensuring vital safety systems are working, proper control of contractors and the need to find different ways of working together in a privatised rail industry. Future progress reports from the HSC will be in themed reports which will aid in identification and tracking progress on all four reports.

Professor Uff made 93 specific recommendations, grouped into 12 categories. Over the two years, since the Southall Rail Accident Inquiry report was published, significant progress has been made on each of the 12 categories of issues identified by Professor Uff for action. Action on most of the recommendations (84) is now regarded as complete. On nine recommendations action continues and will be taken forward in further work. Where action is continuing this is generally because subsequent recommendations in the Ladbroke Grove Rail Inquiry reports have modified the required action, or the action taken has led on to or identified further work streams, or because the timescales originally proposed have not proved realistic.

Driver Training (Recommendations 1-9)

Arrangements for driver training have been improved in line with the proposals in the report. All parties support the CIRAS confidential reporting scheme which works well. Action continues (Recommendations 3-4) on the development of ways of making best use of simulators in

training schemes. The licensing of drivers is being pursued in accordance with recommendations in the LGRI 2 reports to that timetable.

Operating Rules (Recommendations 10-15)

Key proposals in this category have been implemented with AWS now designated as equipment that must be operating if the train is to enter or remain in service. A new Railway Group Standard designates which equipment is essential to the running of the train. Work on revising the Rule Book (Recommendation 10) is taking longer than originally expected but remains a high priority for the industry.

Fault Reporting (Recommendations 16-23)

Fault reporting procedures have been reviewed and improved, with appropriate procedures for receiving and making an automatic record of verbal reports in control centres. The review of the Safety Critical Works Regulations has been overtaken by a need for a wider review in the light of the LGRI 2 report recommendations. However, companies have reviewed their controllers' posts to ensure staff are trained and competent, whether or not they have decided to treat them as safety critical, achieving the requirements of recommendation 20.

Fleet Maintenance (Recommendations 24-33)

The maintenance procedures that are the subject of these recommendations have been improved, with regular monitoring of the workload of maintenance staff. An ATOC has developed a Code of Practice relevant to these recommendations. Work has also been undertaken in conjunction with the TPWS System Authority to identify suspect AWS components and arrange replacement during TPWS fitment.

Infra Structure Maintenance (Recommendations 34-36)

While the improvements proposed in relation to the alignment and sighting of signals have been achieved, these recommendations have been largely overtaken by more detailed recommendations in the LGRI 1 report. A work stream to ensure contractors comply with standards links with the LGRI 2 recommendations.

Regulation (Recommendations 37-42)

Recommendations in this field are discharged.

Vehicle Design (Recommendations 42-56)

The issue of vehicle design requires a longer term approach and ATOC have carried forward action with a 2 to 3 year programme to review and revise standards (Recommendations 44, 45, 47). Safety briefings and safety procedures have been improved in line with the recommendations but further work continues (Recommendations 48, 52, 53) to implement alongside relevant the LGRI 1 recommendations. The HSC agreed that on-train data recorders should be retrofitted to existing cabs by 2005, as mandated in the Railway Group Standard (Recommendations 55, 56).

Research and Development Recommendations 57-64)

Significant progress has been made in the promotion of research and development, in particular with the development of the Railway Safety research programme.

Automatic Train Protection (Recommendation 65-68)

The recommendations in the report largely relate to existing GB-ATP systems, which are being maintained in full operation. The recommendations in the Joint Inquiry on Train Protection Systems report have extended and added to the proposals in the report.

General Safety Issues (Recommendation 69-72)

The recommendations have been taken forward, with the role of senior managers being strengthened. Recommendations in LGRI 2, in particular the establishment of the Railway Industry Safety body (RISB), will extend action to improve safety culture.

Accident Investigation and Inquiries (Recommendations 73-85)

The action proposed in the report has been carried forward as envisaged, but the establishment of the Rail Accident Investigation body envisaged by LGRI 2 will overtake the accident investigation procedures.

Post-accident Procedures (Recommendations 86-93)

The revision of procedures proposed in the report has been taken forward and completed. Railtrack is continuing a new work stream to provide for the best and quickest way of isolating track following an incident.

Whilst the Commission recognises much has been achieved, it is crucial that efforts continue to ensure continuing safety improvement. Important as it is to implement recommendations - we have stressed our intent to make sure this happens - it is not the end of the process. The safety improvements which were identified as necessary and led to the recommendations have to be achieved, consolidated and, where possible, improved upon by incorporating them into established safety systems.

The HSC has been considering the most appropriate way to report future progress on implementation of Public Inquiry reports. This will be the last report that concentrates solely on the recommendations arising from the Southall Rail Accident Inquiry report. Single progress reports on the Joint Inquiry into Train Protection Systems and Lord Cullen's LGRI Part 2 Report will be published shortly. From autumn 2002, HSC will periodically publish one progress report covering all the inquiry reports. We believe presenting the information in this format will help everyone involved to gain a better appreciation of the overall safety benefits being delivered as well as sharpening the focus on key issues. HSC/E will continue to track action on each recommendation, to ensure that none are overlooked.

Health and Safety Commission
April 2002

GLOSSARY

ACoP	Approved Code of Practice
ACPO	Association of Chief Police Officers
ACPOS	Association of Chief Police Officers, Scotland
ALARP	As Low as Reasonably Practicable
ARS	Automatic Route Setting
ATOC	Association of Train Operating Companies
ATP	Automatic Train Protection
AWS	Automatic Warning System
BTP	British Transport Police
CIRAS	Confidential Incident Reporting and Analysis System
CSR	Cab Secure Radio
CRUCC	Central Rail User's Consultative Committee (now Rail Passengers' Council – RPC)
DERA	Defence Evaluation and Research Agency
DETR	Department of the Environment, Transport and the Regions (now Dept of Transport, Local Government and the Regions (DTLR) incorporates the previous Department of Transport DTp)
DOO	Driver Only Operation
ERTMS	European Rail Traffic Management System
EWS	English Welsh and Scottish (freight operator)
FOC	Freight Operating Company
GNER	Great North Eastern Railway
GWT	Great Western Train Company
HMRI	Her Majesty's Railway Inspectorate (part of HSE)
HRA	Heritage Railway Association
HSC	Health and Safety Commission
HSE	Health and Safety Executive
IMC	Infrastructure Maintenance Company
IECC	Integrated Electronic Control Centre
LRM	Layout Risk Method

NRS	AWS maintenance contractors
NSTF	National Safety Task Force
NVQ	National Vocational Qualification
OHL	Overhead Line
ORR	Office of the Rail Regulator
OTDR	On train data recorders
RAIB	Railway Accident Investigation Body
Railway Group	Group comprising Railtrack and holders of Railway Safety Cases (known as Members).
RGS	Railway Group Standard
RIAC	Railway Industry Advisory Committee
RISB	Rail Industry Safety Body
RITC	Railway Industry Training Council
RII	Rail Industry Inquiry
RIO	Rail Incident Officer (Railtrack)
R&D	Research and development
ROSCO	Rolling Stock Company
Railway Safety (RS)	A not-for-profit, wholly owned subsiduary of Railtrack Group plc, limited by guarantee. Took over many function of Railtrack S&SD but expanded role to focus on safety.
RSRP	Railway Safety Research Programme
RSC	Railway Safety Case (formal statement of competence)
RT	Railtrack
SCWR	Safety Critical Work Regulations 1994
SMIS	Safety Management Information System
SPADs	Signals passed at danger
SRA	Strategic Rail Authority (prevoiusly shadow)
Track Access Conditions	Agreement for track use between Railtrack and operator
Traction and Rolling Stock Council	Council for ATOC voluntary Traction and Rolling Stock scheme to enable operators to share best practice and pool resources to address issues in this area.
TOC	Train Operating Company
TU	Trades Union
TPWS	Train Protection and Warning System

Driver Training (1 – 9)

Recommendation 1: Driver behaviour research and data collection

All parties in the rail industry should cooperate in the collection of evidence to support reliable research into human behaviour studies relating to driver performance. Railtrack should coordinate this work and TOCs incorporate the results into training programmes (paras 1.25, 7.16, 16.2).

RT, ATOC **Now-12 months**

Action Plan:

Action 1:

Railtrack S&SD (***now Railway Safety***) will present to the HSC a summary of the current industry 'baseline' position, an agreed programme for the dissemination of good practice, and priority work areas for the future research and development with a detailed action plan for implementation/taking this work forward. (Relates also to Recommendation 62).

By when: the end of August 2000.

Action 2:

Individual Train Operating Companies (TOCs) to consider output from Railtrack work and incorporate output as appropriate into training programmes; advise HSC on progress.

By when: the end of February 2001.

Action 3:

HSC has agreed to create a further Working Group of its ***Railway Industry Advisory Committee*** to cover human factors issues and that this group should monitor and advise HSC on industry progress.

By when: Annual progress report to HSC.

Progress Report (February 2002):

Action 1: A seminar was held on 12 April 2000 to look at current knowledge on driver behaviour and to agree 'baseline' position for industry. The seminar report and proceedings have been distributed and further seminars are planned twice a year to facilitate dissemination of information and good practice Railway Safety manages an industry-wide research programme funded by the SRA; this includes work streams on SPAD mitigation, human factors, and fatigue studies which will seek to develop understanding in these areas.

A catalogue of railway related human factors research was published in September 2000. Publication stimulated great interest and the identification of much additional

research work. A third edition of the Human Factors Research CD-ROM will be produced by Railway Safety during 2002.

The report of the DERA study concerning visual and mental acuity was published in September 2000. Further work identified by this study will be incorporated into the SRA-funded railway safety research programme. The report was subsequently distributed to train operators. Railway Safety is currently considering whether further work will be necessary to support this initiative.

A report concerning specially monitored driver systems and the collection of behavioural evidence has been received and the information used in drafting a code of practice relating to train driving (GO/RC/3551); this is currently out for consultation.

The project to study drivers' eye movements was completed in January 2002 and is under peer review. A foreword will then be written detailing Railway Safety's view on any recommendations made in the report and how these will be taken forward.

Work is ongoing to identify what is required from an approach to human reliability assessment with an aim to increase consistency in rail industry use.

A project to identify the relative importance of factors that influence driver inattention on the approach to signals is underway. RS is evaluating the findings.

Following commencement of the project to assess the impact of shift work and fatigue on safety critical workers, a pilot of the data collection instrument (previously used with aircraft maintenance workers) was undertaken. This initial work indicated that the proposed approach/instrument was not suitable and a bespoke approach was required. As a consequence, the remit for the research is being redrafted prior to restarting the work.

Action 2 TOCs confirmed that they are willing to incorporate results in driver training programmes as appropriate and have begun to do so. Good practice guidance has been disseminated via the National SPAD Focus Group.

Action 3: The RIAC Human Factors Working Group has been established and held a series of meetings and workshops.

HSC considers that industry has carried out useful work in important areas, adequate to regard the recommendations as completed. HSC is aware there is still work to be done to ensure these developments are effectively put into practice. Further progress in these areas will continue as part of developments to ensure implementation of the Ladbroke Grove Rail Inquiry Report Part 1 Recommendation 19 and Joint Inquiry Recommendation 33.

Driver Training

Recommendation 2: Collection of data on driving

Evidence should include that to be provided by CIRAS and from On-Train Data Recorders used to monitor driver behaviour. ASLEF in particular should give their full support to such an initiative (paras 14.23, 14.25, 15.15, 16.3). **RT**, **ASLEF** **Now – 12 mths**

Action Plan

Action 1:

Individual TOCs to submit a progress report to HSC confirming their active participation in providing human factors data to Railtrack and enrollment of driver in Confidential Incident Reporting and Analysis System (CIRAS).

Action 2

ATOC to set up a system to identify good practice on how driver behaviour is to be monitored using On train data recorders (OTDRs). Progress report to be submitted to the HSC.

By when: the end of August 2000.

Progress Report (February 2002):

Action 1**:** TOCs have all confirmed that safety critical staff are enrolled in CIRAS**.** Many review reports regularly at safety management meetings and participation in regional review groups.

TOCs have OTDRs fitted in some of their rolling stock; most are using information gained and providing it to Railtrack as required.

Action 2: ATOC Guidance Note on the use of data from on-train data recorders has been produced and issued to all ATOC members. Many TOCs have confirmed action to incorporate this into company instructions.

All safety critical workers are enrolled in CIRAS, some companies have also enrolled those who, while not safety critical, have an important impact on safety . ATOC has issued guidance and there are arrangements for fitting OTDRs to all trains by 2005. HSC regards action on this recommendation completed.

Driver Training

Recommendations 3, 4, 5: Use of simulators and training for driving in abnormal conditions

3 Simulators should be introduced for driver training and for the observance of driver behaviour (para 16.3).

ATOC **Now–12months**

4 Driver training should include driving in abnormal situations permitted by the Rules and specifically driving with AWS isolated to the extent so permitted, including the use of simulators (para 16.4)

ATOC **Now- 12 months**

5 Testing of driver competence and knowledge of Rules should be extended to cover application of the Rules to practical situations, including all abnormal driving situations permitted by the Rules (para 16.4).

ATOC **Ongoing**

Action Plan:

Action 1: ***ATOC*** will report on progress with the work to the HSC.

Action 2 ***Individual IMCs*** to report progress to HSC.

By when: End of August 2000 and 6-monthly thereafter.

Progress Report (February 2002):

Action 1: ATOC and railway safety have sponsored a training and assessment needs analysis; they are now considering the report and its recommendations. Several TOCs are cooperating to develop systems eg FGW, Railtrack, Heathrow Express and Thames Trains for route learning, FGW is also developing a driving assessment and training simulation facility – first delivery due summer 2002. Those TOCs which are part of the National Express group are cooperating – the specification has been agreed with the equipment to be managed by Central Trains and benefits to be evaluated by other TOCs. Virgin has 3 simulators installed; EWS commissioned its facility in November 2001 and uses it for new trainees and those needing reskilling post-incident. Chiltern Trains will introduce a simulator facility as part of a purpose-built training facility, to be completed in 2004. Connex has 6 simulators to be installed between May and July 2002 plus various software facilities; any spare capacity may be used by other TOCs.

Action 2: The Infrastructure Liaison Group commissioned work to establish the feasibility of simulation for train use outside of possession. A report was published in May 2001; policy on simulation for OTMM operations was agreed in July 2001 and will be promulgated in an ACoP. Balfour Beatty has evaluated a trial of a laptop computer system and is seeking to jointly develop such laptop based packages.

Further work is continuing on the development of computer simulation facilities for driver training (Recommendations 3 and 4) but TOCs have completed the work to brief on driving in adverse conditions (Recommendation 5). Further work will link to recommendations in the LGRI 1 report, once again to ensure all recommendations are being covered as intended.

Driver Training

Recommendation 6: Fault reporting

Drivers should be encouraged to report all actual or suspected faults, whether through formal fault reporting procedures or through CIRAS (paras 14.26, 16.4).

ATOC **Ongoing**

Action Plan:

Individual TOCs will review their briefing arrangements and procedures for ensuring that faults are reported and appropriate close out action taken to rectify the fault(s) (including faults which lie within the control of the IC). Notify the HSC that this has been done.

(links to recommendations 16,17,18)

By when: the end of August 2000

Progress Report (February 2002):

TOCs have confirmed necessary briefing action has taken place with rebriefing where necessary. This has been reinforced through audits and feedback systems. Some TOCs have had independent safety case audits by Railway Safety; HSE (HMRI) has also been reviewing driver training as part of a three-year special inspection programme. There are still some concerns from TUs about how comprehensive this work has been, but this will be considered as part of the other follow up work we have noted HSE is to undertake.

HSC accepts adequate action has been taken to regard this recommendation as completed.

Note: All agreed that equipment faults should be reported through formal reporting systems. CIRAS or its equivalents under development should not be used for this purpose; they are separate confidential reporting vehicles for raising safety concerns which would not be expected via the normal reporting route.

Driver Training

Recommendations 7, 8: National driver qualification and transfer of records

7 Railtrack together with ATOC should establish a national qualification and accreditation system for drivers including centrally held records to be available to the current employer (paras 5.5, 16.5).
8 Railtrack and ATOC should monitor the transfer of drivers between operators and the numbers of drivers trained by each TOC and consider whether there are any safety implications involved (paras 5.5, 16.5).
RT, ATOC **6 – 24 mths**

Action Plan:

Action 1:

Railtrack S&SD to confirm to HSC progress on incorporating the Code of Practice into Group Standards.

By when: the end of August 2000.

Action 2

HSC will consult on whether a legal requirement to transfer driver records is necessary.

Progress Report (February 2002):

Action 1: The ATOC codes (including transfer of records) are completed and to be complied with by the TOCs. Railway Safety is working to incorporate these into Railway Group Standards (RGS), planned for issue in October 2002. The draft RGS (GO/RT 3251) is currently out for consultation.

Action 2: HSC will consider requirements related to the transfer of driver records in the light of recommendations from the Ladbroke Grove Rail Inquiry (Cullen 2) Report about national licensing for drivers, which will be pursued to the timescale in the Cullen 2 report.

HSE's Directorate of Railway Policy intends to review the Railway (Safety Critical Work) Regulations 1994, particularly in the light of recommendations in the LGRI 2 report. It will also progress with DfEE and the SRA initiatives to promote the use of NVQs and other recognised national qualifications.

Therefore there will be considerable work to take forward the Cullen 2 agenda, and this will develop and encompass the developments raised in this recommendation. HSC accepts that adequate action has been undertaken to regard these recommendations as completed, as far as this Inquiry concerned.

Driver Training

Recommendation 9: Driver's Working Hours

Current Rules governing drivers' permitted daily and weekly working hours should be reviewed in the light of current research into human behaviour (para 5.9).
RT **Now – 12 mths**

Action Plan:

ATOC and Railtrack S&SD to report on their work related to driver fatigue. A subset of the DERA contract will be a review and literature search on the particular susceptibilities of drivers returning from leave breaks. ***IMC's*** will identify the relevance of this review for their own drivers outside of possessions and commission further work as necessary. ***Railtrack S&SD and ATOC*** will consult unions on research. Trades Unions agree to support and cooperate with the work. Report on progress to HSC.

By when: the end of February 2001.

Progress Report (February 2002):

A position paper concerning the impact of shift work and fatigue on safety was produced and distributed to the Railway Group in November 2000. Following commencement of the project to assess the impact of shift work and fatigue on safety critical workers, a pilot of the data collection instrument (which had been previously used with aircraft maintenance workers) was undertaken. This initial work indicated that the proposed approach/instrumentation was not suitable and a bespoke approach was required. As a consequence the remit for the research is currently being redrafted with a hope that work will begin again in the next few months.

These workstreams are now part of the Railway Safety Research Programme (RSRP). RSRP includes workstreams on SPAD mitigation, human factors and fatigue studies which will confirm developing understanding in these areas. Industry plans to carry forward this work taking account of LGRI and Joint Inquiry recommendations.

IMCs will consider the relevance of research to their operations as it emerges and take necessary action.

DTI, DTLR and HSE are to implement the Working Time Directive as it affects transport workers; DTI plans to consult on proposals in Autumn 2002. HSE will consider the need to review the ACOP related to hours of work associated with the Railway (Safety Critical Work) Regulations in association with this work.

HSC accepts that adequate action has been undertaken to regard this recommendation as completed. Further work will form part of the LGRI 1 agenda.

Operating Rules 10 - 15

Recommendations 10, 11, 12: Rule Book and Railway Group Standards

10 Railtrack must ensure that Rules and Group Standards applicable to operators, including drivers, are clear and unambiguous. In particular, Railtrack should urgently complete the review of operating Rules to ensure they are workable in the privatised, fragmented industry (para 16.6).
RT **Now – 6 mths**

11 The use of more than one document (whether Rules, Group Standards or otherwise) to cover a single operational issue should be avoided, save where proper reasons exist for use of multiple sources (para 15.9).
RT **Now – 12 mths**

12 All train-borne safety equipment should be clearly designated as to whether or not it is vital to the continued running of the train (para 15.11).
RT **Now - 6 mths**

Action Plan:

Action (covers recommendations 10,11,12)

Railtrack S&SD to report progress to HSC.

By when: the end of 2000 and 6-monthly thereafter.

Progress Report (February 2002):

Work on the Rule Book Review Project continues. An industry conference was held on 16 July 2001 to review progress on the Rule Book Review Project. It has become apparent that the industry is unable to support the level of resource necessary to complete validation of the revised Rule Book in time for a December 2002 implementation. The conference concluded that the project must continue to be given high priority with a revised latest implementation date of December 2003. The additional time will facilitate the removal of any ambiguities and inconsistencies that may exist in the present version. Railway Safety is increasing the available resource to deliver the project, but the project must be progressed to a timescale that industry can support.

All issues regarding train borne safety equipment were resolved by the publication of GO/RT 3437 and GO/RC 3537 (Recommendation 12).

Work on to meet recommendation 10 (taking account of the guidance in 11) is ongoing; recommendations 11 and 12 can be regarded as completed.

Operating Rules

Recommendation 13: AWS designation as vital on-train safety system

AWS is to be regarded as vital to the continued running of the train (para 15.11).
RT **Now - 6 mths**

Action Plan:

Railtrack S&SD to confirm industry acceptance and issue of revised RG standard (likely October 2000) to HSC.

By when: the end of 2000.

Progress Report (February 2002):

Railway Safety has issued GO/RT 3437 designating all equipment vital to the running of the train and requiring TOCs to prepare contingency plans.

HSC accepts action taken is adequate to regard the recommendation as completed.

Note: Railtrack will continue to keep under review all sections of track (used by passenger trains) which are not fitted with AWS infrastructure equipment and install it if it becomes reasonably practicable to do so.

Operating Rules

Recommendation 14 : Action if AWS etc fails

Clear procedures for steps to be taken on failure of any train-borne safety equipment should apply nationally, subject only to such company variation as is fully justified (para 15.11).
RT **Now - 6 mths**

Action Plan:

Railtrack S&SD to revise the rules by October 2000 and confirm the work is complete to the HSC.

By when: the end of 2000.

Progress Report (February 2002):

Railway Safety confirms that this action is complete: GO/RT 3437 issued.

HSC accepts that this recommendation can be regarded as completed.

Operating Rules

Recommendation 15: Rule Book Compliance

All parties must emphasise the need to comply with the Rule Book and must not condone departures (para 7.9).
RT, ATOC

Action Plan:

Railtrack S&SD will confirm to HSC that guidance on briefing on revised rules has been reviewed and revised where appropriate.

By when: the end of August 2000.

Progress Report (February 2002):

(as Feb 2001) The Rule Book project is charged with exploring other practical methods to improve implementation and compliance with revised rules. One proposal is that only urgent changes will be notified through regular operating notices to highlight their importance. Since 1998, all new or revised standards issued by Railway Safety are accompanied by a briefing note which can be used by the duty holder to brief their staff. Such notes were included with the RGS on defective on-train equipment.

HSC accepts that adequate action has been undertaken to regard this recommendation as completed.

Note: the need to comply with the Rule Book is already a statutory obligation on all Railway Group members and any non-compliance should be dealt with by the employing company. The work carried out by Du Pont on industry's safety management systems will assist in the development of a compliance culture within the industry.

Fault Reporting 16 - 23

Recommendations 16, 17, 18 : Fault Reporting by all staff

16 Railtrack and TOCs must impress on drivers and other staff the need to use formal fault reporting procedures where the Rules so provide, and that the duty to report a fault must be performed personally and the report delivered to the person or body identified in the Rules, and not to any other person or body (paras 7.9, 16.11).
RT, ATOC **Ongoing**

17 Fault reporting procedures should be reviewed and made as simple and convenient to use as practically possible. They should include provision for an acknowledgement and an explanation if relevant (para 16.11).
RT, ATOC **Ongoing**

18 Failure to provide forms, defect repair books or other means of reporting faults should be regarded as a disciplinary offence (para 16.11).
RT, ATOC **Ongoing**

Action Plan :

Action 1 (covers recommendation 16,17,18).

Railtrack and individual TOCs to review and revise, as appropriate, fault reporting procedures seeking enhanced consistency and clarity. As part of this review there will be an examination of the arrangements made to facilitate the reporting of faults and to take action if those systems are not used.

Action 2

Railtrack S&SD and individual TOCs will undertake audits to ensure systems work effectively and take appropriate action where failures are identified.

Confirm to HSC that revised procedures have been issued and implemented.

By when: Progress report by the end of August 2000; confirm completion of work by the end of 2000.

(Links also with Recommendation 6)

Progress Report (February 2002):

Action 1: All Railtrack Zones have re-briefed their staff on the need to report faults promptly via the procedures laid down in the Rule Book. Many of these procedures require reporting to Railtrack signallers and/or Operations Control who in turn have clear processes for reporting to Infrastructure Fault Control, Train Operators etc as necessary. Railtrack undertook a review of its arrangements for asset management and this review included within its scope action to ensure that processes for reporting of safety critical infrastructure faults were clear and robust.

GE/RT 8250 (Safety Performance Monitoring and Defect Reporting of Rail Vehicles, Plant and Machinery) was published in June 2001. This refines requirements for safety performance monitoring, reporting, recording, analysing and taking corrective action following safety-related defects, incidents and accidents affecting rail vehicles and plant and machinery. GE/RT 8047 (Reporting of Safety Related Information) was published in June 2001 and mandates requirements for the reporting of safety related information.

TOCs confirmed that they have taken action to complete the work. This includes rebriefing, review of procedures, revision of fault report books and auditing systems. TOC action complete.

Action 2**:** The operation of fault reporting systems is being developed as part of railway safety case compliance but has yet to be incorporated fully as part of HSE's field intervention. TOCs have confirmed that they will take action, include disciplinary action where appropriate, if staff are not cooperating. Most TOCs confirmed rebriefing to emphasise correct procedures; many reported reviews with some consequent changes agreed; some included audits planned.

HSC accepts that adequate action has been taken to regard these recommendations as completed.

Note: whilst the review should consider what disciplinary action on individuals and organisations is appropriate (Recommendation 18), "disciplinary action" is taken in its widest sense and must have regard to contractual arrangements.

Fault Reporting

Recommendation 19 : Recording verbal reports

Appropriate procedures for receiving and making an automatic record of verbal reports should exist in all control centres, similar to the facilities installed by GWT in 1998 (Para 9.14).

RT, ATOC **Now – 12 mths**

Action Plan:

Action 1:

Individual passenger and freight operators to confirm to HSC that voice recording equipment for train operations has been installed.

By when: the end of February 2001.

Action 2:

IMC's to each report to HSC on why voice recording is or is not appropriate for their operations.

By when: the end of August 2000.

Progress Report (February 2002):

Action 1: TOCs and FOCs have confirmed installation of voice recording for control room communications.

Action 2: IMCs have installed voice recording facilities at their control centres where this is practicable. They report practical problems in recording calls to on-call managers where these are made from mobile 'phone to mobile 'phone. This may need to be raised as an issue for the RAIB to consider once it is established.

HSC considers action taken as adequate to regard the recommendation as completed.

Fault Reporting

Recommendation 20 : Training for controllers

Level and quality of training for information controllers should be reviewed (para 9.15).

RT, ATOC **Now – 12 mths**

Action Plan:

Action 1:

ATOC will facilitate discussions to identify good practice for TOC staff and report to HSC on progress.

Action 2:

Railtrack Line will review the RITC standards for corporate use and report progress to HSC.

By when: the end of August 2000 and at 6-monthly intervals until completed.

Progress Report (February 2002):

Action 1: The ATOC Guidance Note "Competence Management of Safety-related Controllers" has been produced and issued to all ATOC Members.

Action 2: Railtrack now regards its operational controllers as Safety Critical Workers . A competence standard has been developed for all Railtrack operational controllers and this is being implemented . All controllers have been issued with a competency assessment workbook and all have completed at least one element. Assessors are in the process of submitting their portfolios as part of the process and these are being verified by external verifiers. Controllers within the National Control Centre were overlooked initially but are now included wthin the assessment process.

HSE's guidance on "Developing and Maintaining Staff Competence" which forms part of RSPG Part 3 section A was published in March 2002.

HSC considers action taken as adequate to regard the recommendation as completed.

Fault Reporting

Recommendation 21 : Status of Information Controllers

Controllers' posts in Railtrack and TOCs should be designated as "safety-critical" as defined in the Railways (Safety Critical Works) Regulations 1994 (para 9.15).
RT, ATOC **Now – 12 mths**

Action Plan:

HSE will clarify the designation of controller posts in consultation with stakeholders (including TUs) and RIAC; and, if necessary, consider issuing further guidance or amending the Regulations.

By when: the end of August 2000.

Progress Report (February 2002):

HSC considered advice from RIAC that information controllers posts' did not come within the current definition of "safety critical". The HSC accepted the advice and noted that introduction to the RIAC guidance on the regulations would be annotated to reflect Professor Uff's recommendations and the HSC's decision. Dutyholders have been reminded of the general requirements that all staff must be trained and competent to undertake their jobs.

This recommendation has been overtaken by the need for a fundamental review of the regulations in the light of the Cullen 2 report and will be dealt with on the timescale in the Cullen 2 report.

Fault Reporting

Recommendations 22, 23 : Fault databases

22 Fault data bases (including RAVERS) should ensure that repeat faults are logged and that a 28-day history of defects is available to managers and maintenance staff (para 16.9).
ATOC **Now – 12 mths**

23 Databases should be programmed to determine and highlight statistically significant trends in faults reported and to display such information to managers and maintenance staff (para 16.9).
ATOC **Now - 12 mths**

Action Plan:

Action:

The Traction and Rolling Stock (T&RS) Council will identify existing best practice within the industry and what more needs to be done. The T&RS Council to report progress to HSC with proposals for who undertakes any further work identified.

By when: the end of August 2000.

Progress Report (February 2002) :

Review of current fault databases completed and report produced. (January 2001)

The review reports that a variety of systems are now used; whilst most systems have facilities to log faults (and repeat faults) and produce trend reports, the ability to share data nationally is being compromised by industry moves to "stand alone" systems.

Further recommendations include :

1. A System Steering Group is being established to implement the review's recommendations (Planned for February 2001)

2. Short term recommendation is to use RAVERS defect reporting/component tracking facilities.

3. Best practice is probably to adopt an EWS approach by using the RAVERS Graphical User Interface as the interface between user and system. All faults are input by central control and interrogated on a regular basis by engineering staff.

4. Production of ATOC Code of Practice for reporting and trend analysis; a draft was issued in August 2001 for consultation.

HSC regards action taken as adequate to regard this recommendation as completed.

Fleet Maintenance **24 - 33**

Recommendation 24 : Competence Management System for Maintenance Staff

GWT should maintain full records of competencies for all maintenance staff as required by job descriptions and safety responsibility statements (paras 6.8, 15.6).
GWT **6 - 24 mths**

Action Plan:

Action 1:

GWT to confirm development of a competence management system.

Action 2

Railtrack S&SD to review the outcome of any work for its potential implications for RG standards.

Action 3

Individual TOCs, ROSCOs and contractors to prepare to comply with any new or altered RG standards if adopted. Report progress to HSC.

By when: the end of August 2000.

Progress Report (February 2002):

Action 1, 2, 3: Industry claim that actions completed by February 2001

GWT has developed an altered competence management system. Maintenance staff competence assessments were carried out between Nov '99 and May '00 and will be ongoing. The process was recognised as industry best practice by Railtrack S&SD following the March 2000 RSC compliance audit.

Railway Safety has reviewed the relevant RGS and concluded that it adequately covers the requirement for vehicle maintenance plans to include staff competencies. Requirement is audited as part of the Railway Safety Case audit process.

The impact of this work will be looked at as part of field activities in HSE. While HSC considers the action adequate to regard the recommendation as completed, its impact in practice is crucial.

Fleet Maintenance

Recommendation 25 : Monitor Workload of Maintenance Staff

GWT should regularly monitor the workload of all maintenance staff (para 15.6).
GWT **Ongoing**

Action Plan:

Action:

GWT and all TOC's to confirm to HSC that it has systems in place to ensure compliance for directly employed staff.

By when: the end of August 2000.

Progress Report (February 2002):

GWT have completed this work, and other TOCs have confirmed in writing to HSE that they have taken/are taking action to ensure that workloads match the staff resource available. Most undertake at least annual reviews, some using external consultants. One mentioned employing extra staff following a review. Others require monitoring of workloads as part of the contract with their maintenance contractor.

HSC considers action taken is adequate to regard the recommendation as completed.

Fleet Maintenance

Recommendations 26, 27, 28, 29: Maintenance systems and testing

26 A current and detailed list of items required to be inspected for each examination should be prepared for and used by maintenance teams (paras 6.8, 15.6).

ATOC,ROSCO **Now-6mths**

27 Documentation for the A-Exam should require ATP reset and self-test (para 6.8).

ATOC, ROSCO **Now - 6 mths**

28 Maintenance staff should be provided with a flowchart to show the derivation of all sources of repair work, to include RAVERS (with check on repeat items) and appropriate structure for Request, Repair Book and Maintenance Control items (para 15.6).

ATOC, ROSCO **Now - 12 mths**

29 Maintenance procedures should require checking of the history of reported defects, including repeat faults, and the taking of appropriate action (paras 6.14, 15.6).

ATOC, ROSCO **Now–12 months**

Action Plan:

Action:

The T&RS Council, involving ROSCOs' participation, will produce a statement of good practice; progress report to HSC.

By when: the end of August 2000.

Progress Report (February 2002):

see report under Recommendation 22/23. Action regarded as completed.

Fleet Maintenance

Recommendation 30: AWS Testing

An improved AWS test box, capable of detecting faults not revealed by the magnet test, should be provided as standard issue at all maintenance depots (paras 6.11, 9.22, 15.6).

ATOC, ROSCO **Now - 6 mths**

Action Plan:

Action:

Individual TOCs to comply with this recommendation by August 2000. (Many are already compliant).

Individual TOCs to confirm to HSC use of or plans for use of a suitable test box.

By when: the end of August 2000.

Progress Report (February 2002):

All TOCs or their maintenance contractors are using improved AWS testing boxes. The provision of AWS/TPWS test equipment is also being provided as part of the TPWS fitment programme.

HSC considers action taken is adequate to regard the recommendations as completed.

Fleet Maintenance

Recommendations 31, 32, 33: Preventative Maintenance

31 Efforts should be concentrated on ensuring that AWS and other train-borne safety equipment does not fail in service through preventable causes. This should include regular replacements of equipment, maintenance of full service records and provision for full traceability of repairable parts and components (para 15.8).
ATOC, RAILPART, NRS **Now - 6 mths**

32 Contractual ownership and other rights in AWS equipment must be clarified and defined (paras 15.7, 16.21).
ROSCO **6 - 24 mths**

33 ATOC and Railtrack should monitor the supply of new AWS parts and components to ensure continued availability on an indefinite basis, including the introduction of improved components (para 15.7).
ATOC,ROSCO,RAILPART **Ongoing**

Action Plan:

Action:

ATOC is already working to draw up good practice guidance on improving AWS reliability.

ATOC will work with HSE to set up an industry working party involving Railpart and NRS to look at tracking and monitoring systems and contractual ownership issues. The review should take account of all other forms of train protection systems and includes clarification of the responsibility for the performance of the system and for the interaction between the track and train borne elements of the system. ***ATOC*** will provide a progress report and identify a programme to see action through to completion.

By when: the end of August 2000.

Note: Aspects related to system authorities covered under recommendations 58,59. The reference is appropriate to Railpart, rather than Railtrack, as it relates to train-borne equipment.

Progress Report (February 2002):

Industry AWS Steering Group established. (ATOC, ROSCOs, Railpart and Suppliers). TPWS System Authority now established which encompasses AWS within its terms of reference to enable AWS to be effectively managed through the SA.

ATOC Code of Practice for AWS Component Life produced. TOCs and ATOC maintain a database that holds details of components considered as suspect. Many of these components will be changed as a matter of course during the TPWS installation programme.

The TPWS System Authority together with the suppliers monitor the availability of components to ensure continuity of supply or make alternative arrangements eg the NRS solid-state receiver, approved by HSE (HMRI).

HSE is aware that there are some continuing problems related to wrong side failures of equipment but this is being actioned as part of the TPWS fitment programme monitored by HSE.

HSC considers that adequate action has been undertaken to regard the recommendations as completed.

Infrastructure Maintenance 34 - 36

Recommendations 34, 35, 36 : Signal Systems and Contractual Arrangements

34 Railtrack should ensure that the alignment and sighting of signals is confirmed at the time of commissioning, both from the signal and from the track, and appropriate records made, including photographs (paras 3.16, 16.14).
RT **Now - 12 mths**

35 Railtrack should ensure that checks on alignment and sighting of signals are made at least annually, and at a greater frequency to be determined on the basis of errors found (paras 3.16, 16.14).
RT **Now - 6 mths**

36 Railtrack should review all maintenance contracts to ensure that all parties are aware of what checks are included and which excluded (paras 3.16, 16.14).
RT **6 - 24 mths**

Action Plan:

Action:

Railtrack Line to provide HSC with a detailed progress report on arrangements developed and programmed to satisfy recommendations in full.

By when : the end of August 2000

Progress Report (February 2002):

The Signaling Technical Advice Note was issued in October 2000. This sets requirements for the alignment of colour light signals in response to Railway Group Standard GK/RT0037. A Signal Maintenance Specification has also been issued in support of SIGTAN 032. Railtrack believes this action fully discharges Professor Uff's recommendation 34.

Regarding recommendation 36, Railtrack has reviewed its maintenance contracts and is satisfied that they specify the standards which apply to maintenance. Maintenance inspections are set out in group and line standards quoted in the contracts. Regular guidance on the inclusion of new and changed standards is issued from HQ. Asset Maintenance Director has reviewed the Standards for asset maintenance to ensure that they incorporate the necessary checks.

A review by Railtrack post-Hatfield found contractors to be non-compliant with the standard in significant ways and the follow-up 14 point plan required contractors to review the standards to establish exactly where they were non-compliant. This has been done and documentation passed to Railtrack detailing costs and schedules to become compliant and submitted to the relevant Railtrack management for agreement. It is likely to take until mid-2003 for all contractors to become compliant with maintenance standards; however, awareness of maintenance requirements and shortfalls are at a high level.

HSC regards this further work to bring contractors into full compliance is regarded as a separate workstream; the original recommendation is regarded as completed.

Additional work will be needed to implement general recommendations about contractors in Cullen 2.

Regulation 37 - 42

Recommendation 37 : Risk Assessment of regulation policy change

Railtrack should ensure that any further proposed change of regulation policy is preceded by a risk assessment (para 4.6, 16.15).
RT **6 - 24 mths**

Action Plan:

Action:
Railtrack accepts this recommendation and will discuss with Regulators any proposed changes affecting safety.

By when: Ongoing.

Progress Report (February 2002):

Railtrack reports that so far it has not been necessary to amend the Level 1 Regulating Statement. Therefore, the need for assessing the risk of proposed changes has not arisen. However, the ongoing requirement to risk assess any changes in Level 1 statements will be incorporated in the Railtrack procedure on risk assessment of timetable change at the next revision.

HSC regards this recommendation as completed.

Regulation

Recommendations 38, 39 : Track Access Condition : Safety first

38 There should be a review of Condition H11 of the Track Access Conditions which should make clear that no regulating decision is to be made on the basis of protecting commercial interests. Safety and security must be paramount considerations (paras 4.13, 7.6, 16.16).
RT, ORR **6 - 24 mths**

39 Railtrack should review their Level 1 Policy Statement in the light of any amendment to Condition H11 (para 6.16).
RT **6 - 24 mths**

Action Plan:

Railtrack Line to confirm progress on revision of condition H11 of the Track Access agreement to HSC.

By when: the end of August 2000.

Progress Report (February 2002):

Revision of Track Access Condition H11 completed.

Railtrack has concluded from this review that the amendments to Condition H11 do not necessitate any further revision of the Level 1 Regulating Statement.

HSC regards these recommendations as completed.

Regulation

Recommendation 40: **Policy Statement on risk analysis**

40 More Level 2 and 3 Policy Statements should be introduced having due regard to any relevant risk analysis (para 6.16).
RT **6 - 24 mths**

Action Plan:

Action:

Railtrack Line will propose and support further Level 2 or 3 statements only where risk analysis and/or appropriate experienced professional judgement indicate that this is a sensible course of action in any particular case. Progress report to HSC on whether this has found to be needed; otherwise action ongoing.

By when: the end of February 2001.

Progress Report (February 2002):

No need for further Level 2 and 3 Policy Statements has been identified since the August 2000 update. Railtrack consider such a need is unlikely to arise in the foreseeable future. Railtrack therefore believes that it has fully discharged its responsibility to give this recommendation proper consideration.

HSC regards this recommendations as completed.

Regulation

Recommendation 41: Operation of Automatic Route Setting Signaling Railtrack should review the operation of ARS to consider whether more green signals should be booked ahead of higher speed trains, and generally whether the speed and length of trains is adequately taken into account (para 16.16).
RT **6 - 24 mths**

Action Plan:

Action:

Railtrack Line to review and make recommendations and to report to HSC on progress.

By when: the end of August 2000.

Progress Report (February 2002):

Future actions concerning the operation of ARS at Slough were discussed at a meeting on 5 January 2001 and resulting work is intended to be complete in time for the introduction of the May 2002 Great Western Zone timetable.

HSC considers that the review required has been undertaken and regards the recommendation as completed.

Regulation

Recommendation 42: Layout Risk Models
Any further review of LRM should take into account Dr Murphy's risk analysis (para 16.16).
RT **6 - 24 mths**

Action Plan:

Action:

Railtrack S&SD to review the Layout Risk Model (LRM), the review to include taking account of Dr Murphy's risk analysis (this is nearly complete).

By when: the end of August 2000.

Progress Report (February 2002):

Dr Murphy's work is being taken into account in considering the way forward with the layout risk method. Wider issues of risk associated with layouts, timetables and service levels are clearly material to SPAD management.

HSC regards this recommendation as completed as far as this inquiry is concerned; any further action will be taken in relation to recommendation 32 of the Joint Inquiry Report.

Vehicle Design 43 - 56

Recommendation 43 : Research on Effect of Speed

HMRI should keep under long-term review the effect of speed on numbers of casualties in rail accidents (para 11.7).
HMRI **Ongoing**

Action Plan:

Action:

HSE to report on state of knowledge following completion of research contract.

By when: the end of August 2000.

Progress Report (February 2002):

The report of the research by Professor Andrew W Evans (sponsored by HSE) was published on 29 March 2001. This analysed assembled details of 59 fatal incidents involving loaded or empty passenger trains plus 15 non-passenger train incidents which have occurred over the past 34 years and found

- Taking all accidents together, the long term trend in mean fatalities per accident has been almost flat;
- Notwithstanding the high speeds at Ladbroke Grove and Hatfield, there is only a slightly upward trend over time in the mean impact speeds of passenger trains;
- For passenger stock incidents there is a statistically significant relationship between the mean number of fatalities and impact speed; mean fatalities may be regarded as rising in proportion to speed, with constants of proportionality that are different for multiple units and locomotive hauled stock.
- The relationship between the number of fatalities and train speed is not at all close because the actual number of fatalities in accidents is very variable.
- The author's preferred method of projecting mean fatalities per incident gives an overall average, currently 4.0 fatalities per incident, including non-passenger trains. Favourable factors are the improved crashworthiness of vehicles; unfavourable are the increased number of multiple units.

Some work has already been undertaken eg Mark 1 rolling stock modeling and crash testing reported in HSE's 1998/99 Annual Report on Railway Safety and work following the Ladbroke Grove crash. Further work has been undertaken by ROSCOs as part of development work for modifying Mark 1 rolling stock.

HSC regards this recommendation as completed; however, after each incident, it is HSE's normal practice to consider issues related to rolling stock crash worthiness.

Vehicle Design

Recommendations 44, 45, 46, 47 : Review of Carriage Design and Emergency Evacuation

44 A review should be carried out by ATOC, with input from all interested bodies, on the ways in which internal safety features may be modified and standardised to provide the best practicable means of emergency exit under accident conditions, including vehicles lying on their side, to include the provision of emergency lighting and standardised public announcements (paras 11.11, 11.12, 11.13).
ATOC **6 - 24 mths**

45 The review should consider dates and means for the introduction of identified improvements to existing stock (para 11.2, 15.16).
ATOC **6 - 24 mths**

46 A single body should be empowered to specify common standards for safety features in the interior of passenger vehicles and to identify and approve types of vehicles and/or operators to which particular standards are to apply (paras 11.6, 16.18).

ATOC **6- 24 mths**

47 The design of coaches should be such that internal doors can be easily opened in a crash situation, in darkness and irrespective of the attitude of the vehicle; and that hammers intended for breaking windows can be easily located in the same conditions (paras 11.11, 11.12).
ATOC **6 - 24 mths**

Action Plan:

Action (covers recommendations 44,45,46,47):

ATOC will, with support from Railtrack, ROSCOs, HSE, TUs, rolling stock manufacturers, RITC, CRUCC and passenger groups, organise a seminar to:

(i) review the current situation with regard to crash survivability, methods of evacuation, safety information, design standards and staff training including existing draft standards

(ii) agree a programme for the dissemination of good practice, priority work areas and a detailed action plan for implementing/taking this work forward.

The Seminar will be held before the end of August 2000 and a report made by ATOC to the HSC including a future programme of work.

By when: the end of August 2000.

Progress Report (February 2002):

ATOC Vehicle Standards Group (AVSG) established, following the seminar. ATOC/Railway Safety (with AEA) has completed a review of 17,000 documents to identify those applicable to vehicle interior safety.

The first standard AV/ST 9001 (Vehicle Interior Crashworthiness) has been produced and was published in February 2002. The purpose of this document is to assimilate

existing measures regarding vehicle interior crashworthiness from a number of sources into one comprehensive document. It enables the measures to be issued in a controlled manner and to be updated by the findings of research.

Other documents in development are:

AV/ST 9002 Emergency Egress – Provision of equipment and Escape Routes;

AV/ST 9003 Emergency Egress – Provision of Training;

AV/ST 9004 Fire Safety Equipment;

AV/ST 9005 Labels and Signage;

AV/ST 9006 Audible communications – Provision of Equipment/Facilities.

HSC recognises that the work is ongoing but will be taken forward as part of the programme to implement LGRI Part I Recommendations 64-65, 67-73, 75,77-78, 80, 82 and 83. The Cullen 2 Recommendations in respect of establishment of RISB are also relevant.

Note: The recommendation tracking database HSE is putting into place will allow all these recommendation to be followed, and in this way openly demonstrate progress. Links between the inquiries within the new theme structure will also be more transparent.

Vehicle Design

Recommendation 48: Safety Briefing for Passengers Safety briefings or other appropriate means of communicating safety information to passengers should be adopted, including pointing out safety notices to passengers. ATOC should monitor the methods adopted by TOCs and issue guidance documents after a suitable trial period, including recommendations for different types of journey (para 11.13).
ATOC **Now – 12 mths**

Action Plan:

Action:

ATOC will take forward, in conjunction with other parties in the industry, work to develop a base standard/good practice guide, taking into account different types of journeys and provide a progress report to HSC.

By when: the end of August 2000.

Progress Report (February 2002):

ATOC Guidance Note GN 005 "Communication of Safety Information to Passengers" has been revised and discussed with the RPC.

TOCs operating short/commuter journeys consider verbal messages are not appropriate but some are trialing posters/notices. Thames Trains are co-ordinating work related to risk assessment on safety information. There is also co-operation between TOCs to develop a consistent approach on the same sort of rolling stock. The results of this work on trains themselves is limited.

RITC are reviewing the communications sections in the National Occupational Standards relevant to passenger safety briefings.

The HSC recognises the work is ongoing and that it is important to identify common and effective methods of communicating safety information to passengers. Further work will be linked to implementation of the LGRI 1 recommendations.

Vehicle Design

Recommendations 49, 50 : Design of Freight Wagons

49 A design study and risk assessment should be carried out to determine whether freight wagons could be designed with less aggressive features without detriment to their primary function (para 11.14).
EWS, RT **6 - 24 mths**

50 Consideration should be given to the most appropriate form of coupling for freight trains, to minimise damage in the event of collision, including a risk assessment (para 11.15).
EWS, RT **6 - 24 mths**

Action Plan:

Action:

Railtrack S&SD, in conjunction with EWS and with the cooperation of all other freight operators, will carry out design and risk assessments. Railtrack S&SD will take the results into account within its standards and engineering acceptance work programme. ***Railtrack*** to report progress to HSC.

By when: the end of August 2000 and 6-monthly thereafter.

Progress Report (February 2002):

Railtrack considers that the elements of freight wagons likely to cause damage to other vehicles are the major load bearing elements and it is not feasible to make them less aggressive. A report commissioned from AEA also concluded that it is unlikely that any modifications could be justified. These views will be reviewed if further information from later incidents suggests it is necessary.

The review into couplers was published in May 2001 and recommended that UIC screw couplings on freight vehicles in the UK can continue. If any further consideration were given to the use of alternative couplings specific attention on the performance of couplings under compression will be required. This analysis will be revisited in the event of any pertinent findings or recommendations from the Great Heck formal inquiry. A Railway Safety Research Programme workstream will take a holistic view of survivability issues.

HSC accepts that adequate work has been undertaken to regard the recommendation as completed.

Vehicle Design

Recommendation 51: Crumple Zone
No recommendation is made concerning crumple zones in passenger carriages, save that the matter should be given attention by the Ladbroke Grove Inquiry (para 11.4).
Ladbroke Grove

Action Plan:

Remitted to the Ladbroke Grove Rail Inquiry:

Progress Report (February 2002)

Recommendations are included in the Ladbroke Grove Part 1 Report recommendations 53-59 (especially 56 and 58) with their own timescale.

Action completed.

Vehicle Design

Recommendation 52, 53: Training of Crew on Emergency Actions

52 Train crews should be given improved training and briefing on emergency actions, including a practical evacuation (para 11.11).
ATOC **Now - 12 mths**

53 Standards for evacuation of passengers should be proved by practical exercises using typical groups of passengers and train crew, and repeated on a regular basis to be approved by HMRI (para 11.11)
ATOC, RT, HMRI **Now - 12 mths**

Action Plan:

Action 1:

Railtrack S&SD will review the existing Railway Group Standard and report to HSC.

Action 2

ATOC will facilitate the development of a high level document identifying good practice for all on-train staff and training by practical evacuation exercises.

Action 3

All passenger train operators will review the adequacy of their existing training and briefing procedures against the identified good practice and the Railway Group Standard.

Railtrack S&SD, individual TOCs and ATOC will report on progress to HSC.

By when: the end of February 2001.

Progress Report (February 2002):

Action 1: The review of Railway Group Standard GO/RT3434/1 (renumbered GO/RT 3471 (Accident and Emergency Planning)) is currently in progress taking account of comments made during consultation. Publication is currently planned for April 2002 with compliance by June 2002.

Action 2: The ATOC Guidance Note has been produced and issued to all ATOC Members.

Action 3: Many TOCs have confirmed that they have already introduced training for all on train staff, not just train crew, in evacuation procedures and will review against ATOC guidance to identify any additional elements needed. First Great Western organised an exercise at Minehead during 2001 and subsequently the ATOC Engineering Council applied for research funding from the RSRP to develop a programme to model evacuation from carriages and to set benchmarks for evacuation exercises.

Some TOCs are already carrying out practical evacuation exercises in cooperation with Railtrack Zones (including from vehicles in tunnels) or participating in table top exercises which include briefing of any changes to procedures.

HSE has also issued guidance on escape and evacuation, ' HSE guidance on the provision of equipment and arrangements for the evacuation and escape of persons from trains in an emergency'. This guidance will in due course be incorporated into Part 4 of the Railway Safety Principles and Guidance.

HSC recognises that work ongoing in this area and that this will be taken forward in conjunction with the LGRI 1 recommendations.

Vehicle design

Recommendation 54 : Overhead Line Structures
Consideration should be given to modification to the design of OHL structures to improve their response to accidents, if achievable without detriment to their primary role (para 11.16).
RT **6 - 24 mths**

Action Plan:

Action:

Railtrack S&SD to review research from AEA Technology to consider whether Overhead Line Structures (OHL) can be modified without detriment to their primary function and undertake further research as appropriate. Railtrack S&SD to report progress to the HSC.
By when: the end of August 2000 and 6-monthly thereafter; discharged by September 2002.

Progress Report (February 2002):

Railtrack has considered a report commissioned from AEA Technology which concluded "that in the majority of incidents where the coach impacts an OHLE masts, the coach should remain intact". No further action is planned by Railtrack in relation to Mark 3 rolling stock.

However, following the Hatfield derailment involving Mark 4 rolling stock, crashworthiness issues relating to lineside structures were included in the remit for the independently chaired railway industry formal inquiry.

The RSRP includes a workstream on accident survivability which will provide an holistic view of issues. As part of this workstream Railway Safety will commission a review of the characteristics of OHL structures including consideration of the impact on safety risks of their rigidity/frangibility in a range of different accident scenarios. The aim will be to establish whether any changes to standards and practices would have a beneficial effect on safety. The intention is for this work to be completed by November 2002.

Because of the new workstreams which have arisen since the Southall report was completed, HSC considers that this recommendation has been completed, with new actions included in the follow-up to the Hatfield inquiries . Therefore HSC accepts that adequate work has taken place for this recommendation to be regarded as completed.

Vehicle Design

Recommendations 55, 56 : On train data recorders

55 All trains should be fitted with data recorders. All data recorders should record speed, time/location, brake application and AWS cancellation, and should be simple and speedy to download (para 14.23).
ATOC, RT **6 - 24 mths**

56 Consideration should be given to developing a cheaper form of data recorder for retrospective fitment where this will allow earlier fitting (para 14.24).
ATOC, RT **Now - 6 mths**

Action Plan:

Action:

Railtrack S&SD will submit a programme of retrofitment for all trains covered by the Railway Group Standard and justify why an earlier fitment scale cannot be met. Railtrack S&SD to report to HSC.

By when: the end of August 2000.

Progress Report (February 2002):

Though many trains have on-train data recorders, the rail industry regarded the proposal made by Professor Uff that on-train data recorders should be fitted to all trains by 2002 as not achievable.

RGS GO/RT 3272 issue 3 Data Recorders on Trains (operational requirements) and GM/RT 2472 (design requirements) will replace the previously issued rapid response standard, mandating data recorder fitment on all trains. The standard is scheduled for issue in June 2002. Under the standard, points in the recommendation are covered in Section 5 – Information to be recorded: new and existing trains; Section 7.2 covers data retrieval.

This recommendation now seems to have been too optimistic in terms of timescale, and HSC accepts that there will be a greater overall safety benefit from delaying the full introduction of the data recorders to a later date to allow other more immediate changes to be made.

All trains likely to be in operation after 2007 will be fitted with OTDRs by 2005; ATOC and the ROSCOs are providing an annual report on fitment to HSE.

HSC accepts the arrangements made are adequate to regard the recommendation as completed.

Research and Development 57 - 64

Recommendation 57 : Development of cross industry research and development

Steps should be taken to put in place means to resolve inter-company issues relating to research and development at all levels. Specifically, the following issues must be addressed (paras 15.13, 16.21).

ATOC, ROSCO **Now - 12 mths**

Action Plan:

Action:

ORR will discuss with all relevant parties including Railtrack S&SD, ATOC, IMC's and other safety case duty holders, ROSCOs, SSRA, RITC and HSE how best to secure intercompany R&D and how it should be funded. ORR to report progress to HSC.

By when: the end of August 2000 and 6-monthly thereafter.

Progress Report (February 2002):

Subject to annual agreement of priorities and levels of expenditure, arrangements have been made to fund research commissioned by Railway Safety during the next five-year control period. Funding is to be provided by the SRA and subject to review and audit by HSE, SRA and ORR. In turn, Railway Safety has submitted a five-year business plan outlining the likely priorities and spread of expenditure throughout the period.

HSC accepts that this action is adequate to regard the recommendation as completed. Further consideration will be needed in the light of Cullen 2 recommendations especially recommendation 55.

Research and Development

Recommendations 58, 59, 63, 65 : System Authority

58 Rights (including ownership) and obligations in all equipment added to vehicles, together with lineside equipment upon which its operation depends, must be defined in legally enforceable terms (paras 15.7, 15.13, 16.21).
ATOC, ROSCO **Now - 12 mths**

59 The above recommendation to include review of Safety Cases and franchising arrangements and consideration of action by the Rail Regulator (para 16.22).

ATOC, RT, SRA, ORR **Now - 12 mths**

63 One or more System Authorities should be created to oversee the specific development of any new project on the railways and to oversee continuation of work on existing projects, including AWS and ATP (paras 15.13, 16.13, 16.18).
ATOC, RT **Now - 12 mths**

65 Development of ATP should be managed and funded in future through a System Authority having broad industry representation and support (para 15.13).
ATOC, RT **Now - 12 mths**

Action Plan:

Action:

ORR and SSRA will organise a workshop in June 2000 involving all stakeholders to identify how best to take forward the concept of System Authorities; how they should be formed, funded and the purpose they should serve. ***ORR*** to report progress to the HSC identifying forward programme and issues to be resolved.

By when: the end of August 2000 and 6-monthly thereafter.

Progress Report (February 2002):

A system authority's prime responsibility is in establishing the initial design, its development and implementation.

Railway Safety has developed an RGS requiring the establishment of system authorities for specific equipment and systems. The first fully constituted and funded system authority, dealing with the complex issues and inter-relationships between the wheel-rail interfaces was established in the aftermath of the railway derailment at Hatfield. Additionally, a system authority is dealing with the implementation of TPWS and AWS issues. Following the European lead, a further system authority to deal with development and implementation of ERTMS for Britain's railway is planned to be established shortly. A system authority has been set up for GWML involving Railtrack GW Zone, FGW and Heathrow Express; a similar authority has been established for the Chiltern Line between Railtrack and Chiltern Railways.

HSC regards the recommendations as completed but recognises that further work on the role of system authorities is required under Cullen 2 recommendations.

Research and Development

Recommendation 60 : Development of Intercompany Groups Consideration should also be given, for the purpose of the above recommendations, to enlarging or reorganising existing intercompany groups, including considering whether the Railway Group should include ROSCOs and component suppliers (para 16.20).

RT **Now - 12 mths**

Action Plan:

Action:

Railtrack S&SD agree to take this forward in consultation with HSE. Progress report by Railtrack S&SD to HSC.

By when: the end of August 2000.

Progress Report (February 2002):

The definition of the term "Railway Group" has been revised to reflect the introduction of the Railways (Safety Case) Regulations 2000 and changes to Railtrack's Network Licence.

HSE welcomed the cross-industry discussions and working groups developed after the Hatfield derailment.

HSC accepts this recommendation has been completed; this issue will need to be considered further when the RISB proposed by Lord Cullen is set up.

Research and Development

Recommendation 61 : Review of Acceptance and Approvals Procedures
S&SD together with HMRI and other bodies having responsibility for accepting or approving new equipment or stock should review their procedures with a view to reducing delay and introducing fast-track procedures where possible (para 15.7).
RT, HMRI **6 - 24 mths**

Action Plan:

Action 1:

HSE will consult industry on proposals for assuring initial integrity and reducing current delays in the approvals process and report to HSC.

Action 2:

Railtrack Line and SSRA will also report to the Commission on Railtrack's vehicle acceptance procedures and options for reducing delays.

By when: the end of 2000.

Progress Report (February 2002):

Action 1: Responses to HSE's discussion document on permissioning regimes and approvals were received and analysed. Further work on this project is just commencing.

Implementation of the EU Directive on Interoperability on High Speed Lines will require some changes to the approvals system; regulations are due to be made in April 2002. The Conventional Interoperability Directive has been adopted and is due for implementation in mid-2003.

Action 2: The Train Acceptance Group's review was presented to the Long Term Steering Group, the RIA Traction and Rolling Stock Group and Railtrack Board during April/May 2001. As a result of the TAG work stream, the stages in the route acceptance process will be simplified, organisations supplying independent safety assessments will be accredited and better guidance given to organisations preparing a route acceptance safety case. Railtrack's Safety and Environment Plan includes an objective to review the product acceptance process. The timescale for completion of this is March 2002. Processes have been reviewed and revised as necessary.

HSE is part of TAG, which has produced a new version of the 'Brown Book', on approvals processes. The HSE approvals process is in parallel with this. ORR have recently looked into a complaint on approvals, and concluded there remains an issue in that the lack of a clear asset database This has to be rectified by Railtrack.

HSC regards action taken as adequate to regard this recommendation as completed. Further work will be linked to work to establish bodies related to Interoperability.

Research and Development

Recommendation 62, 64 : Implementation of research recommendations (David Davies) and control of R&D programme

62 There should be a review of progress on implementing the Recommendations of the DTp Review Committee Report (chaired by Sir David Davies) published in September 1996 (para 14.31).
ATOC, RT **Now - 12 mths**

64 Future R&D must be the subject of rigorous programming, cost-projections and funding arrangements, including reliable contingencies. R&D funding must be on a cross-industry basis, irrespective of whether individual TOCs decide to fit new technology (para 16.22).
ATOC, RT **Now - 12 mths**

Action Plan:

Action:

Railtrack S&SD will take the review forward within the required time scales including discussing a funding mechanism with the regulators. Progress report to HSC.

By when: the end of August 2000.

Progress Report (February 2002):

See report under Recommendation 57.

Recommendation regarded as completed

Automatic Train Protection 65 - 68

Recommendation 65: see 58

Recommendation 66: Effective Operation of BR-ATP Systems
ATP should be maintained in a fully operational state on Great Western lines currently fitted, until replaced by an equally effective train protection system (para 15.14).
GWTC **Ongoing**

Action Plan:

Action:

Completed.

By when: Not appropriate.

Comments:

First Great Western accepts this, as do Railtrack Line and Heathrow Express.

Chiltern Railway and Railtrack Line have made a commitment to maintain ATP in a fully operational state on Chiltern Lines.

Action completed.

Automatic Train Protection

Recommendation 67: Extension of BR-ATP on GWML GWT and Railtrack should consider extensions to the present coverage of ATP (para 15.14).
GWTC, RT **Now - 12 mths**

Action Plan:

Action 1:

Railtrack Line will consider extending the infrastructure, in particular, filling gaps in the existing installations which were left for trial purposes.

Action 2:

All TOCs using this route to undertake a feasibility study for fitting ATP to their trains running on the Great Western route; where feasible, time scales for fitment should be given. Progress report to HSC from Railtrack and all TOCs using route.

By when: the end of August 2000.

Progress Report (February 2002):

Action 1: Railtrack has received the final report and concluded that there is no general case for extending coverage of BR-ATP. However, Railtrack has separately agreed with First Great Western to infill the BR-ATP system in the Bristol/Bath area, work due for completion in spring 2003.

Action 2: TOCs/FOCs and GTRM who use the line do not intend to fit BR-ATP; Virgin is particularly concerned about fitting multiple safety systems to trains but has agreed to fit its HSTs. TPWS will be fitted to all other trains across the network, including GWML.

ERTMS is now seen as the way forward, and this is the most cost effective approach. BR-ATP trials are neither being extended in the GWML nor on the Chiltern lines, but the work in the Bristol/Bath area will continue.

HSC considers adequate action has been taken to regard this recommendation as completed. Further action will be taken as part of the response to Recommendations 1-3 in the Joint Inquiry report.

Automatic Train Protection

Recommendation 68: Train protection (ATP/AWS) GWT, Railtrack and HMRI should consider whether trains with AWS isolated can run normal services where ATP is fitted and operational (para 15.10). **GWTC, RT** **Now - 6 mths**

Action Plan:

Action:

Railtrack S&SD to consider and revise operational rules as appropriate and report to HSC.

By when: the end of August 2000.

Progress Report (February 2002):

Railway Safety accepts that AWS provides a less effective control than ATP and that it should not be necessary to have AWS where ATP is in use. However, given the limited coverage of current ATP systems , including coverage of only two lines on some four line stretches, Railway Safety considers that all trains should still have operational AWS when leaving the maintenance depot. Further risk assessment work on this issue was conducted by AEA Risk Solutions. A copy of the report was provided to the Chairman of the HSC. This described a risk assessment of running trains where only ATP was operational. Discussions were held with HSE and agreement reached on the suitability of the requirements currently in GO/RT 3437.

HSC considers adequate action has been undertaken to regard this recommendation as completed.

General safety Issues 69 - 72

Recommendations 69, 70 : Safety Management Systems

69 All parties in the industry must ensure that paper-based procedures do not become divorced from reality. This should include senior managers maintaining a direct knowledge of the situation in railway workplaces (para 16.25).
All **Ongoing**

70 Paper-based audits should be backed up by unplanned inspections and other direct observation of the work under review (para 16.26).
All **Ongoing**

Action Plan:

Action: ***Du Pont*** will develop guidance on effective safety tours for senior managers for both Railtrack specific and general application.

Action 1:

Railtrack will report any necessary changes in practice arising from these reviews to HSC.

Action 2:

TOCs will cooperate fully and follow best practice.

By when: the end of August 2000.

Progress Report (February 2002):

Action 1: Railway Safety has with significant input from Du Pont Safety Resources developed guidance for the Railway Group. This guidance was published in August 2000. It recognises the central place of managing out unsafe acts and the potentially powerful effect of properly conducted managerial safety tours.

Training in the proper conduct of safety tours is desirable and a training module has been developed with the assistance of Du Pont. This safety tours training module was successfully piloted by Railtrack's Safety & Standards Directorate and Railtrack Major Stations in September 2000. It is available to all rail industry organisations.

Arthur D Little have developed a "safety culture" training module to supplement the "Strategic Safety Management Programme" developed by Railway Safety.

Underpinning these developments is the intolerance of unsafe acts and conditions which the industry sees as central to the 2001/2 Railway Group Safety Plan.

Action 2: TOCs accept the need for managers to be aware of what is happening and are taking proactive steps. Many are accepting safety tours as part of their companies' procedures to achieve the objective of the recommendation; some have other ideas for their company. Auditing systems are also in regular use.

HSC accepts that adequate action has taken place to regard these recommendations as completed. However, it recognises that continuing work is needed on developing safety culture and this will be monitored as part of the implementation of LGRI 1 and 2 report recommendations and future safety case compliance.

General Safety Issues

Recommendation 71 : Use of Risk Assessment

Steps should be taken to ensure that all risk assessments are rigorous and that those initiating risk assessments are appropriately qualified and informed. Steps include giving attention to HSE Guidance Notes covering risk assessment, which should accordingly be kept under review (paras 15.21, 16.26).
All **Ongoing**

Action Plan:

Action:

The ***HSC*** will agree a definitive statement which will be published on how HSE assesses, manages and regulates risk. It will also approve revised guidance on risk assessment for railway safety cases.

By when: The end of 2001

Progress Report (February 2002):

Revised guidance on risk assessment approved by the HSC was published in December 2001, following evaluation of comments on "Reducing risks, protecting people".

The Assessment Manual and assessment criteria was reviewed and a revised version was available on the HSE Internet site from 2 April 2002

HSC considers action taken adequate to regard the recommendation as completed.

General Safety Issues

Recommendation 72 : Railway Group Standards - development procedure

Consultation procedures and times involved in revision of Group Standards or the introduction of new Group Standards, should be reviewed by the Inquiry to be held into safety procedures (para 16.8). **Ladbroke Grove**

Action Plan:

To be considered by Cullen Inquiry Part 2.

Progress Report February 2002:

Recommendations especially 40, 41 and 43 of the Cullen 2 report cover this matter.

Completed: further work will be developed as part of the implementation of the Cullen 2 report.

Accident Investigation and Inquiries 73 - 85

Recommendations 73, 74, 76, 86: Technical investigation of incidents

73 The technical investigation of serious rail accidents should be controlled by HMRI save in exceptional cases of suspected crime which is unconnected with the running of the railway (para 15.23).
HSC **6 - 24 mths**

74 HMRI should ensure that a single, thorough and definitive technical investigation is carried out, to include the recording of all appropriate factual data, the collection of physical evidence from the scene of the accident and decisions as to handing the site back to the rail companies (paras 2.19, 7.3, 15.24).
HSC **6 - 24 mths**

76 HMRI should decide, irrespective of any ongoing criminal investigation, what data or information is to be passed on to rail companies for rapid action (para 15.24).
HSC **6 - 24 mths**

86 Steps should be taken to upgrade the role of Rail Incident Officer and to ensure that the person so designated has sufficient authority and standing for the task in hand, bearing in mind the tensions that can develop in the early stages of an accident response (para 2.15).
RT **Now - 6 mths**

Action Plan:

Action:

HSC has asked ***HSE*** to review protocols with other parties and report with a timed programme for any changes needed.

By when: the end of August 2000.

Progress Report (February 2002):

Protocols covering relations between BTP, HSE and Railtrack related to investigation of incidents are kept regularly under review and will reflect lessons learned from Ladbroke Grove, Hatfield and Selby as well as Southall.

HSC regards the action taken as adequate to regard the current recommendations as completed. These working arrangements will need to be reviewed as recommendations from the Cullen 2 report are implemented.

Accident Investigations and Inquiries

Recommendation 75 : Procurement of expert assistance

Standing contracts for the provision of consulting services by recognised railway experts should be amended to make provision for HMRI to require any appropriate individual to provide expert services for the immediate accident investigation, including the services of any appropriate laboratory or testing house (para 15.23).
HSC **6 - 24 mths**

Action Plan:

Action:

HSC has asked ***HSE*** to consider what progress can be made to secure adequate immediate technical expertise to assist in accident investigation and report back.

By when: the end of February 2001

Progress Report (February 2002):

The various HSE "call off" contracts have been renegotiated and extended to meet the concerns expressed.

HSC regards the action taken adequate to regard the recommendation as completed.

Accident Investigations and Inquiries

Recommendations 77, 78, 79, 80, 85 : Formal industry investigation procedures

77 The primary forum for deciding upon appropriate recommendations following an accident should be the Rail Industry Inquiry (RII). Procedures for holding such an inquiry at the earliest possible date should be strengthened, and should include the presentation by HMRI of their investigation (para 15.26).
RT, ATOC, HMRI **6 - 24 mths**

78 Procedure for conducting a RII should be reviewed. This should include ensuring that the RII panel is independent of all parties having an interest in the accident (paras 9.33, 15.25, 16.26).
RT **6 - 24 mths**

79 Consideration should be given to whether procedures can be adapted to make any RII accessible to the public, save where the needs of confidentiality otherwise require (para 15.28).
RT **6 - 24 mths**

80 Nothing should be permitted to delay the opening of a RII nor the completion of their Report and Recommendations (para 15.28).
RT **6 - 24 mths**

85 Responses to the S&SD paper "The Future of Accident Investigation in the Railway Industry" should be taken into consideration in applying the foregoing Recommendations (para 15.29).
RT **Now - 12 mths**

Action Plan:

Action 1: ***HSE*** to discuss further with Railtrack and BTP.

Action 2: ***Railtrack S&SD*** to report to HSC on progress in revising RG Standard on accident investigation.

By when: the end of August 2000.

Progress Report (February 2002):

Action 1: Discussions between HSE, BTP and Railtrack are held on a regular basis to ensure day-to-day operational matters are handled effectively. These discussions take into account experience from the Ladbroke Grove collision and any recommendations from the Rail Inquiry plus lessons learned from the Hatfield and Selby derailments.
Action 2: Work to draft the replacement standard for GO/RT3434/3 on incident investigation defines the requirements for the investigation of railway accidents. Railway Safety published the new standard in December 2001 for compliance by February 2002.

HSC considers that these recommendations can be regarded as completed whilst recognising that further work will be needed to implement the recommendations of the Cullen 2 report.

Accident Investigation and Inquiries

Recommendation 81 : Independent Accident Investigation Body

Consideration should be given to whether an additional independent accident investigation body should be created, to take over the accident investigation functions of HMRI under Recommendation 73 para 15.23).
HSC **6 - 24 mths**

Action Plan:

To be considered by Cullen Inquiry Part 2

Progress Report (February 2002):

Recommendation 57 and subsequent ones in the Cullen 2 report cover accident investigation.

Completed; further work will be taken forward under implementation of the Cullen 2 recommendations.

Accident Investigations and Inquiries

Recommendations 82, 93: Railtrack/BTP/HSE protocols

82 Existing protocols between Railtrack, BTP and HMRI should be reviewed in the light of the above Recommendations (para 15.24).
HSC, BTP, RT **6 - 24 mths**

93 Post-accident debriefing procedures should be reviewed to ensure that combined debriefings are held between all involved Railway Industry and Emergency Services groups (paras 2.25, 16.28).
All **Now - 6 mths**

Action Plan:

Action:

HSE will take the lead in reviewing the protocols in conjunction with Railtrack and BTP, consulting ATOC where appropriate. In addition to reviewing the protocols, emergency arrangements to ensure that the RIO's authority and standing is suitably established and recognised will be considered and debriefing arrangements involving all parties.

HSE will report to HSC with timed programme for any changes.

By when: the end of August 2000.

Progress Report (February 2002):

HSE has regular liaison with BTP and Railtrack and arrangements were tested following the Ladbroke Grove, Hatfield and Selby incidents/accidents etc. Railtrack's Emergency Services Liaison Committee is proposing to draft guidance about respective roles in the is area with HSE, BTP and the industry.

Railway Safety has published a revised RGS (see Recommendation 77 Action 2)

The Protocol on Work Related Deaths (a joint CPS/ACPO/HSE document) is being revised to bring it up-to-date and take account of Home Office advice on corporate manslaughter. BTP has agreed to work to the current protocol (subject to minor exemptions); also the Local Government Association but will be signatories to the revised Protocol, expected to be published around mid-2002.

HSC considers action taken or underway adequate to regard the recommendations as completed. Further progress will be reported as the new RAIB procedured are developed.

Accident Investigations and Inquiries

Recommendation 83 : Formal HSC Inquiry

Any subsequent Inquiry directed under the Health and Safety at Work Act, 1974 should involve all parties in the rail industry who may have an interest in Recommendations to be made, through the involvement of representative groups including ATOC (para 15.27).
HSC **6 - 24 mths**

Action Plan:

Action:

To be reviewed after the completion of the Ladbroke Grove Public Inquiry, when comments from Professor Uff and any comments or recommendations from Lord Cullen on the operation of the Regulations will be taken into account.

Progress Report (February 2002):

In the light of recommendations in the Cullen 2 report, HSE is currently working on proposals to review these regulations, taking account of the views of Lord Cullen and Professor Uff. Arrangements for the rail industry will need to take account Lord Cullen's recommendations including the proposed establishment of the RAIB.

This recommendation has been overtaken by new work and HSC believes sufficient action has been taken already to regard this as completed.

Accident Investigations and Inquiries

Recommendation 84 : Passenger Group Representation and funding at Inquiries

Passenger representation at such inquiries should not be limited to those involved in the immediate accident. Consideration should be given to enlarging the role of CRUCC and the provision of appropriate funding for their full participation in Inquiries (para 15.27).

DETR **6 - 24 mths**

Action Plan:

Action:

Completed. Funding for Rail Passengers Council (previously CRUCC) to attend Ladbroke Grove Rail Inquiry agreed by Office of the Rail Regulator.

By when:

Not applicable.

Action completed.

Recommendation 85 : see recommendation 77

Post-accident procedures 86 - 93

Recommendation 86 : see recommendation 73

Recommendation 87 : Safety of track following incidents

87 Consideration should be given to means of speeding up the process of earthing and isolation of traction current following an accident on an electrified section of line (para2.15).

RT **Now - 6 mths**

Action Plan:

Action:

Railtrack Line will review existing procedures and confirm any new arrangements with HSC.

By when:

the end of August 2000.

Progress Report (February 2002):

Railtrack's review of existing procedures was completed following delivery of issue 2 of the Stage 1 report prepared for Railtrack by Parson Brinkerhoff Kennedy & Donkin (PBKD). The report concludes that any significant speeding up of the process, for earthing and isolating traction current, will probably require the provision of additional fixed switching and earthing infrastructure, remotely operated from Electrical Control Rooms which has potentially significant implications. The second stage of the study is presently being undertaken; report due May 2002. This is expected to recommend that the most effective method of achieving isolation and emergency earthing of the Overhead Line in the fastest time possible after an incident on the existing network.

The new switchgear, presently being installed on the West Coast and East Coast Main Line projects, has the ability to earth the Overhead line remotely using switches controlled by the SCADA system. AC Electrified Lines User Group are supporting the introduction of remotely controlled earthing circuit breakers, and arranging for the amendment of relevant operational instructions in line with this new equipment.

HSC recognises that work will be needed to implement the recommendations of the report but regards this as a new work stream to be monitored as part of normal HSE inspection. Adequate action has therefore been undertaken for HSC to regard this action as completed.

Post-accident procedures

Recommendations 88, 89, 90, 91, 92 : Contingency Plans following major incidents

88 Routes for evacuation away from an accident should take into account the need to avoid distressing scenes (para 2.11).
Emergency Services **Ongoing**

89 Further consideration should be given to the sensitive handling of persons rescued from accidents including whether they should be sent onward by train (para 2.14). **ATOC**
Ongoing

90 More effective means of liaising with hospital and casualty gathering areas should be considered (para 2.14).
ATOC **Ongoing**

91 Identification of victims should be speeded up and information released to relatives at the earliest possible time (para 2.24).
Police Forces **Now - 12 mths**

92 Casualty bureaux procedures should be reviewed in order to ensure that they remain open for as long as required and that adequate telephone facilities are available (para 2.24).
Police Forces **Now - 6 mths**

Action Plan:

Action (covers recommendations 88,91,92)

Police (ACPO) and Fire Service Inspectorate to confirm to HSC that any necessary changes have been made to their guidance and procedures.

By when:

the end of August 2000.

Action (covers recommendations 89,90):

ATOC will facilitate discussions to identify good practice and review its existing 'Code of Practice on Joint Industry Provision of Customer Care following a Major Rail Accident'. Progress report to HSC.

By when: the end of February 2001.

Progress Report (February 2002):

Action on 88, 91, 92:

All emergency services and Department of Health have reviewed their guidance subsequent to Southall and the other major incidents. Action on 89, 90**:**

The revised ATOC Code of Practice "Code of Practice on Joint Industry Provision of Customer Care following a major rail accident" has been produced and issued to all ATOC Members.

There has been further work in the Emegency Services Liaison Forum (RT/BTP/ACPO/Fire Services/HSE/ATOC) which has produced a number of Codes

of Practice, including ‘The management of a fatality occurring on Railtrack Controlled Infrastructure in England and Wales’

HSC regards action taken as adequate to regard these recommendation as completed.

Summary of recommendations

Number	Status	Comments
1	Closed out	LGRI 1, Rec19 and Joint Inquiry Rec 33 refer.
2	Closed out	
3, 4	Further work required,	LGRI will also take forward
5	Closed out	
6	Closed out	
7	Closed out	
8	Closed out	
9	Closed out	LGRI will also take forward
10	Ongoing	
11, 12	Closed out	
13	Closed out	
14	Closed out	
15	Closed out	
16, 17, 18	Closed out	
19	Closed out	
20	Closed out	
21	Overtaken by LGRI 2	To be dealt with in LGRI 2
22, 23	Closed out	Although some further work to be done
24	Closed out	
25	Closed out	
26, 27, 28, 29	Closed out	Some further work to be done
30	Closed out	
31, 32, 33	Closed out	Further work under TPWS programme
34, 35, 36	Closed out	Further work may be required under LGRI 2
37	Closed out	
38, 39	Closed out	
40	Closed out	
41	Closed out	
42	Closed out	Any further action will be considered under JI Rec 32

43	**Closed out**	
44, 45, 47	**Ongoing**	**Taken forward under LGRI1 and LGRI 2**
46	**Closed out**	
48	**Ongoing**	**Further work linked to LGRI 1**
49, 50	**Closed out**	
51	**Referred to LGRI**	**Covered by LGRI 1**
52, 53	**Further work required**	**Taken forward with LGRI 1**
54	**Closed out**	
55, 56	**Closed out**	
57	**Closed out**	**Further work to be considered in light of LGRI 2**
58, 59, 63, 65	**Closed out**	
60	**Closed out**	**To be considered further once RISB is set up.**
61	**Closed out**	
62, 64	**Closed out**	
67	**Closed out**	**Further action as part of response to J I Report.**
68	**Closed out**	
69, 70	**Closed out**	**Further work under LGR1 & 2**
71	**Closed out**	
72	**Superseded**	**Covered by LGRI 2**
73, 74, 76, 86	**Closed out**	
75	**Closed out**	
77, 78, 79, 80, 85	**Closed out**	**Further work to be considered in light of LGRI 2**
81	**Superceded**	**Covered by LGRI 2**
82, 93	**Closed out**	
83	**Superceded**	**Being reviewed under LGRI 2**
84	**Closed out**	
87	**Closed out**	**Further work required as separate work stream**
88, 89, 90, 91, 92	**Closed out**	