



Safety Improvement Plan

2007/2008

London Underground Limited



Introduction

London Underground (LU) provides a key service for the capital. Each weekday over 3 million passenger journeys are made on the network. The operation, maintenance and improvement of the network presents a variety of hazards to customers and staff – each of which require suitable controls to ensure that risks are as low as is reasonably practicable. The efforts made by LU to control safety risk on our network ensure that London Underground is one of the safest forms of travel for customers and a safe workplace for our staff.

In addition to operational safety considerations, the security of the London Underground network is vital. LU operates an open system, and has already been targeted for terrorist attack. It is in this context that LU is striving to further reduce the risk and impact of such attacks. It is also essential that customers and staff do not feel at risk from more ordinary forms of crime whilst on the Underground network.

LU is committed to continuous improvement in safety performance. The Safety Improvement Plan (SIP) summarises our short and long term plans to improve safety and security on the LU network for customers, employees and suppliers.

The SIPs for LU, Metronet and Tubelines have been drawn up after joint consultation. This ensures coherent improvement programmes across all four companies so that priority areas are comprehensively addressed.

Review of Safety Performance in 2006/7

Safety performance during 2006/7 continued to show improvement and consolidation of improving trends from 2005/6. This performance is summarised below:

Although there were two customer accidental fatalities during 2006/7, this is the same number as in 2005/6 despite the record number of customer journeys undertaken during 2006/7. It represents the lowest number of accidental customer fatalities for eight years. This is approximately one fatality per 507 million customer journeys. (Deaths due to suicide, suspected suicide, medical causes, trespass and crime are excluded from these figures.) One fatality was as a result of a person falling in front of a train as a result of horseplay; the other involved a customer being pushed in front of a train by another group of customers.

The customer major injury rate has increased slightly compared to the last two years to approximately 1 major injury per 7 million customer journeys. This compares to 1 major injury in 8 million customer journeys for the last two years. The majority of these injuries involved falls on stairs and slips, trips and falls, which continue to be the main areas where customer major injuries occur. The poster campaigns to influence customer behaviour in avoiding risks in these areas continue and will be reinforced during 2007/8.

Once again there were no fatalities to any employee or contractor. It has now been six years since there was such a fatality. The increase in the number of employee major injuries seen over the last 2 years (from 4 to 7 to 10) has decreased to 7 major injuries in 2006/7. The rate of major injuries per 100 000 employees, (the measures used nationally by the Health and Safety Executive), also fell (from 75 in 2005/6 to 52.) during 2006/7 and is the lowest for two years. In addition, there was a 2%

reduction in the number of lost time injuries occurring in 2006/7 compared with 2005/6 (680 compared with 692). The majority of these were as a result of slips, trips and falls (43%, 295), staff assault (30%, 213) and trauma (20% 138) associated with Train Operators suffering psychological effects of being involved in incidents such as trespass on track. This indicates that benefits continue to be gained from the ongoing programmes, described below, aimed at reducing workplace injuries and violence.

There was a reduction in the number of derailments in 2006/7, with 21 reported incidents compared with 24 incidents in 2005/6. Once again, there were no derailments of trains in passenger service. It has now been 36 months since the last in service derailment at White City. All these derailments involved either engineering trains or empty passenger trains. The majority of these derailments are due either to the poor condition of tracks in depots or to errors by Infracos shunting staff. Work is underway to improve the overall track condition in depots.

LU has comprehensive train protection systems in place to ensure that the residual safety risks from Signals Passed at Danger (SPADs) are very low. Therefore the primary impact of SPADs is on train service reliability. During 2006/7 work as part of the 5 year programme to reduce the number of SPADs continued. However, after good performance in 2005/6, the number of SPADs in 2006/7 returned to previous levels (2004/5). The total for 2006/07 was 951 SPADs which represents an overall increase of 18% from last years' total of 775. Category A SPADs increased by 16% to 699 from last years' total of 588 whilst Category B' SPADs increased by 25% to 249 from last years' total of 187. There were also 2 SPADs classified as 'Category C' and involved signals being returned to danger due to correct operation of safety systems in an emergency. The longer term actions as part of the SPAD reduction programme are noted in the 2007/8 Safety Improvement Programme which together with completion of mitigation works aim to reduced the overall number of SPADs. Mitigation Works have been completed in the last 6-months for many of the signals previously identified as 'Top 20' Multi-SPAD signal on their respective lines. This is part of an on-going programme to reduce the risk of a SPAD by implementing a 'technical' (engineering) solution. The majority of these signals had relatively high SPAD 'rates' prior to mitigation, with a likelihood of three or more SPADs occurring per year. On-going monitoring is being carried out to assess effectiveness of these mitigation works; however, initial indications are favourable, with the majority of signals remaining SPAD free and the time since the last SPAD being greater than previously .

An 11% reduction (from 247 to 219) in the number of confirmed fires on the LU network was achieved in 2006/7, building on the reduction (17%) achieved during 2004/5. This is due to the improvements in the litter picking regime and other measures introduced by the Infracos being maintained.

LU received no enforcement notices from Her Majesty's Railway Inspectorate (HMRI). This is the first time this has been achieved. Two enforcement notices were served on LU during each of the last three years. However, 4 enforcement notices were received from the London Fire and Emergency Planning Authority (LFEPA), this compares with 3 in 2005/6 and 9 for each of the two previous years. During 2006/7 these were at Euston (all parts of station premises shall be kept clear of any accumulation of combustible refuse or other combustible matter.), South Kensington



(fire extinguishers out of date), Arsenal (cordoning an area off reducing means of escape) and Gloucester Road (compressor stored incorrectly without an exemption)

LU delivered all the safety improvement programmes scheduled for completion 2006/7. These have contributed to the improved safety performance discussed above and will continue to contribute to the safety performance throughout 2007/8 and beyond as described below.

Safety Improvement Plan 2007/8

Overview

One of LU's six strategic business objectives is **to provide a safe and secure service for customers and a safe and secure environment for all those who work on the Tube.**

To ensure this objective continues to be achieved, this Plan aims to:

- Reduce priority residual safety risks as low as reasonably practicable
- Ensure security arrangements are strengthened as far as reasonably practicable
- Continue to streamline health and safety standards and assurance arrangements
- Further enhance the competencies of LU managers and staff to ensure the necessary standards are consistently achieved.

The programmes to achieve the above are described in the pages which follow. It is important to emphasise, however, that these programmes are supported by and integrated with other programmes designed to achieve LU's five other strategic business objectives which are not described in this document.

Safety Improvement Programme

Sub-Objective One:

Reduce priority residual safety risks as low as reasonably practicable

Purpose:

LU is committed to ensuring that our existing high standard of safety is not only maintained but also enhanced where this is reasonably practicable.

Analysis:

Our extensive safety risk assessments indicate that our priorities need to continue to be focused on further:

- reducing the risks of derailments
- reducing the occurrence of signals passed at danger (SPADs)
- reducing the number of and minimising the consequences of lost time injuries received by our staff
- managing the consequences of increasing customer numbers in areas such as reducing the number of falls on stairs and escalators
- Improving the effectiveness and quality of our risk assessment models and related processes, which inform the effectiveness of risk control measures
- continue to minimise the impacts of workplace violence on staff

We will also continue to benchmark ourselves against other metros as part of our membership of the international Community of Metros organisation (CoMet) and will

continue to develop comparative indices of accident precursors and participate in specific benchmarking studies.

The above approach will reduce actual risk levels and ensure customers continue to perceive safety risk to be low.

Programme Summaries:

Derailment Risk Reduction

Extensive improvement measures were completed across the network to sustain the significant downward trend in the number of in-service derailments, a programme to identify and regularise all existing track non-compliances with our standards was completed in May 2005. The next phase of the improvement plan continued through out 2006/7 and will continue to 2010. This is progressively correcting any sub-standard conditions currently regularised by a Temporary Approved Non Compliance or concession, whilst maintaining a compliant situation with respect to emerging faults. Further improvement measures are either also in progress or are planned, these are covered in Metronet's and Tube Lines' plans.

Signals Passed At Danger (SPADS)

We already have comprehensive train protection systems in place to ensure that the residual safety risks from SPADs are kept very low, but SPADs have a significant impact on train service reliability. A Corporate SPAD Reduction Programme was implemented during 2005/06 to build on and extend existing line level programmes. The objective of the programme is to achieve a sustainable 60% reduction in SPADs (based on the 2004/5 levels) by the end of 2009/10. The longer term actions developed as part of this programme continued to be implemented in 2006/7 and will continue through 2007/8. In addition, during 2007/8 a review of the recruitment and selection procedures used, the impact of fatigue and boredom and the performance measures used for monitoring SPADs will be undertaken. In particular further analysis will be undertaken to understand the effects of changes to timetables on the number of SPADs. We will continue to determine when the benefit from these improvements will be realised and to monitor the impact.

Reduction in Injury Rate

We already have control measures in place to ensure the probability of receiving a work related injury is very low and programmes to support staff suffering from work-related injuries. During 2007/8 we will consider these measures further to identify any gaps in our current or planned provisions. If necessary, new work streams will be defined to address any gaps identified.

Our extensive risk assessments indicate that the risk of injury to our customers is very low. With increasing customer numbers, however, increased pressure/demand may be made on our control systems and procedures. During 2007/8 we will analyse the impact of increasing customer numbers on injury rates and areas and review the adequacy of existing controls.

Risk Assessment Model and Processes

Our major accident Quantified Risk Assessment (QRA) models help us understand our risk profile and identify key contributors to that risk. During 2006/7 a long-term review programme was developed to align with and take into account the Line Upgrades and other PPP and PFI significant deliverables. During 2007/8 as part of a rolling programme of review the models will be developed to reflect the step free access programme and the Waterloo & City line upgrade. Measures to improve the use of the QRA models by our managers are outlined in Sub-Objective 4.

Comparative Indices of Accident Precursors

We are a member of the international Community of Metros organisation (CoMet) which benchmarks Metro systems against each other. LU leads a programme to develop comparative indices of accident precursors, so that comparisons of safety performance and safety management can be made and best practice adopted. This will continue and, where best practices from other Metros are identified, new work streams will be defined to implement such practices.. We will share our experiences around reducing staff incidents.

Workplace Violence Reduction

The programme, which started several years ago, continues and includes further development of the joint LU/British Transport Police (BTP) Workplace Violence Reduction Unit. Work during 2007/8 will continue to focus on providing better and earlier support to staff who suffer assault, and progressing the appropriate follow up action. Performance benchmarks for the effectiveness of the joint unit will be developed.

Sub-Objective Two

Ensure security arrangements are strengthened as far as reasonably practicable

Purpose

To further enhance the security of the Underground where practicable.

Analysis

Our priorities need to be focused on considering measures to further:

- reduce the risk of terror attacks
- reduce the impact of an incident, should it take place
- increase the perception of a safe and secure environment for customers staff, and suppliers

This approach will reduce actual risk levels, but it is also important that customers perceive safety and security risks to be low. In this respect, we will also implement customer facing security improvements e.g. more visible staff and police, safer waiting areas and more CCTV.

Programme summaries:

Personal Security

Significant sums are being spent on safety and security improvements over the next few years, in addition to the very large investments being delivered through the PPP. We will continue to address real and perceived personal security risks on the Underground. The programme to upgrade equipment (e.g. CCTV, help points/alarms) to a common high standard with significant enhancements on all stations by 2012 and on trains as new fleets are introduced or existing fleets are refurbished continues.

New systems will allow a new, more flexible command and control strategy. More centralised control, through linked station control rooms, will enable active management of the environment, increasing staff mobility and hence visibility. An improved risk based staffing model, which also matches staffing levels to customer capacity/volume and station complexity is being introduced as the ticket retailing strategy is progressively implemented.

A more visible staff and police presence will increase the chance of crime detection, be a strong deterrent and together with focussed communications will reassure customers about the real, as opposed to perceived, risks of crime. Through further training and internal communication, we will achieve an increase in staff vigilance that will help reduce the opportunity for crime and increase the chances of prosecution.

We will continue to ensure that our and the BTP's resources are optimally deployed and supported with the right facilities and skills in LU's own workforce.

TfL have adopted Section 17 of the Crime & Disorder Act the requirements of which will in the main be delivered by the TPED Crime & Disorder Partnership Unit working with LU Operational Security and BTP.

Infrastructure Security Group

The Graffiti Group was formed in 2003 - made up of InfraCo's, TfL's Crime and Disorder Unit, BTP, Operational Security and S&SD. As success at tackling graffiti has been sustained, the topics dealt with by the group have evolved to include perimeter fencing, and addressing trespass, stone throwing and, more recently, cable theft.

The terms of reference for the group have therefore been redefined. The 'Infrastructure Security Group' aims to maintain the existing working relationships and improvement programme, whilst focusing on infrastructure protection in a more structured way by developing and implementing an Infrastructure Security Strategy.

Resilience

During the IRA terrorist campaign of the early 90s, London Underground developed considerable skills at handling both real and threatened terrorist activities, and that preparation and training allowed us to respond effectively to the July 2005 terror

attacks. However, those latest attacks, and the continued risk of similar incidents, represent a further challenge to us. We will continue work to address the threat through improved deterrence, detection, and emergency response arrangements.

Our resilience programme has been strengthened to identify and deliver all reasonably practicable improvements; this work will continue to be done in close liaison with the Police, Transport Security Directorate (TRANSEC) and the security services. This includes working with TRANSEC to facilitate research studies, implementing a computerised system to assist staff with security checks, strengthening security at key sites and improving our planning to deal with a range of scenarios.

Sub-Objective Three

Continue to streamline health and safety standards and assurance arrangements

Purpose:

To continue to improve compliance with legislation and to achieve ever improving safety performance through the rationalisation and simplification of our standards, processes and associated documentation to make understanding and compliance easier and more efficient to achieve.

Analysis:

Over the last year, we have continued to make progress on simplifying our standards and our safety and technical assurance and inspection processes. In the coming year we will continue to streamline our working procedures and related auditing processes to make them easier to understand and use. Specifically, we will continue to embed the streamlined assurance regime for LU and our PPP and PFI suppliers; We will complete the rationalisation of the Working Reference Manual by introducing the new LUL Rule Book and ensuring it is embedded throughout LU. We will ensure we comply with changes in railway regulation being implemented by HSE and ORR in 2007/8.

Programme Summaries:

Standards Development

Work on standards will focus on further refinement of standards which Infracos have to seek the most concessions against, in order to reduce the need for such concessions. Work will also focus on any further opportunities for streamlining the suite of standards even further than the major rationalisation of standards done between 2000 and 2005. For example, LU and Infraco partners have over many years made effective use of the LU Quality, Environment, Safety and Health Contract Conditions (QUENSH conditions) in placing requirements on companies undertaking engineering and associated works on the Underground. QUENSH conditions are part of the LU Health Safety and Environment Management System, the purpose of which is to ensure the consistent application of safe working practices.

Periodically the QUENSH conditions have been updated to reflect changes in legislation or best practice methodologies. During 2006/7 a brief review of the operation of QUENSH was undertaken and it was found that many of the requirements overlapped with existing requirements in other LU standards. In addition, it was noted that due to the continuously evolving nature of safety legislation and guidance, maintaining QUENSH so that it always reflected the current position was hard to achieve. This led to the potential for compliance with QUENSH, but not necessarily compliance with existing best practice – or legislation.

During 2007/8 a full review of the operation of the QUENSH contract conditions will be undertaken and alternative methods of ensuring that suppliers to both LU and Infracos meet legislative requirements and best practice in the delivery of engineering and associated works will be developed.

Assurance Regime Rationalisation

During 2006/7, the existing separate safety and technical audit functions were centralised and inspection activities better coordinated. This has enabled us to assess our own safety performance and that of supplier companies better – and so drive continuous improvement. Further work to understand root causes of audit findings and develop further safety improvement is planned for 2007/8.

A considerable amount of work was also done on the existing processes through which we gain assurance that any technical and operational safety risks attendant on the delivery of project and maintenance works by supplier companies has been properly considered - and safety risk adequately mitigated. This work resulted in the development and trial implementation of two draft standards (and associated processes) to strengthen the assurance regime and remove those elements of duplication present in the existing system. In 2007/8 the operation of the new assurance regime mandated by these standards will be progressively implemented across all projects.

To ensure that the new processes involved are properly understood and that LU staff have the skill to implement them effectively, a bespoke training course in support of the new assurance arrangements was been developed and started in 2006/7 and will continue throughout 2007/8.

Working Reference Manual Rationalisation

This programme extends into 2007/8, and aims to considerably reduce the volume of working procedures and make them far easier to understand and comply with. The work is being done with input from a representative sample of those staff that have to apply the procedures on the railway every day. The work is and will continue to identify and resolve any problems that exist with the practicality of applying the procedures, difficulties in interpretation of the procedures and problems with access to the documentation.

The programme also takes account of new technology being introduced as a result of the investment programme, such as the new 'Connect' radio system being installed across the network, so that work procedures are adjusted to reap the safety and other benefits such investments are designed to achieve.

Many of the work procedures are safety critical, so the programme includes a rigorous risk assessment and change control process. This approach ensures that the risks of errors occurring in the drafting of new procedures, during the associated staff briefings or training and as part of the progressive implementation programme are minimised.

During 2007/8 work will be undertaken to maximise the benefits from the New Rule Book. A benefit realisation team will be established to aid COO realise these improvements. New work will be undertaken to review and revised the Line Supplements and Defective in Service Instructions in similar style to the New Rule Book. The possession planning process will be reviewed to identify any further possible improvements.

Compliance with New/Revised Health and Safety Regulations

Changes to specific safety regulations will come into force during 2007/8. These include the Construction (Design and Management) Regulations 2007 which replace both the Construction (Design and Management) Regulations 1994 and the Construction (Health, Safety and Welfare) Regulations 1996. These changes come into force on 1 April 2007. During 2006/7 a review was undertaken of the likely impact of this change on LU and appropriate briefings for staff on the changes were developed. During 2007/8 we will review the implementation of these regulations to ensure full compliance. The Regulatory Reform (Fire Safety Order) is currently being applied in parallel with the Fire Precautions (Sub-surface Railways Stations) Regulations, the 'Section 12 Regulations'. During 2007/8 a programme will be developed and implemented to fully meet the risk assessment requirements of the Order.

Sub-Objective Four

Further enhance the competencies of LU managers and staff to ensure the necessary standards are consistently achieved.

Purpose:

This is to ensure that managers and staff are clear about their health and safety management responsibilities and have the necessary skills, knowledge and resources to effectively discharge them.

Analysis:

A considerable amount of work on this subject has been undertaken over the past six years. A review of the outcomes shows that considerable progress has been made, and that further work is needed in the following areas:

- Improving accessibility to and usability of the major accident risk assessment models to aid better safety decision making
- Enhancing of incident management skills and processes
- Streamlining our competence assurance regime for operational staff by moving to a risk-based system for assessing competence of safety critical workers.
- Improving safety critical communications
- Rolling out station supervisor track familiarisation good practice.

Programme Summaries

Decision Making and Better Use of the Risk Assessment Models

During 2005/6, a review was initiated into how LU and the Infracos use major accident quantified risk assessment (QRA) models. Work was completed to develop a format for the QRA network and line reports, which more readily meets the needs of our managers. A communications plan was developed in 2006/7 to improve visibility of the models with greater involvement of operational managers in future QRA reviews. This plan is to be implemented during 2007/8.

Enhancement of Incident Management Skills and Processes

Investigations of a variety of different incidents over several years have identified weaknesses in the way some incidents are managed in what is often a challenging environment. In 2006/7 a review and analysis of existing procedures for investigations into less serious incidents was undertaken and an improvement programme developed. Implementation of this programme started in 2006/7 and continues through 2007/8.

Risk Based Competence Assurance and Operational Learning and Training System for Safety Critical Workers

As a result of regulatory changes, a review of our Competence Assurance and Operational Training arrangements was completed during 2005/6. A programme to develop a risk-based Competence Management System (CMS) for assessing the competence of safety critical workers and to deliver the supporting operational training/learning requirements that aligns with the CMS processes was developed and trialled in 2006/7. Development and delivery of this improved regime will continue over the next few years across all lines. Implementation of this strategy will result in integration of operational learning and training into the business and ensure that these programmes are adapted to take account of changes arising from the line upgrade projects.

Appendix A

Key Programme Milestones and Management Responsibilities

Sub-Objective 1: Reduce priority residual safety and security risks as low as reasonably practicable

Programme 1: Derailment Risk Reduction

Milestone	Date	Lead Manager
Oversight of the Metronet and Tubelines track improvement programmes.	31 st May 2010.	Trevor Jipson, Permanent Way Engineer

Programme 2: Signals Passed At Danger (SPADs)

Milestone	Date	Lead Manager
Signal Sighting Improvements – BCV	30 th October 2009	Sally Clarke, Operational Services Manager - BCV
Signal sighting Improvements – SSR	26 th October 2007	Paul Doyle, Operational Services Manager - SSR
Signal Sighting Improvements – JNP	16 th April 2007	Sue Lofthouse, Operational Services Manager - JNP
Understanding the impact of fatigue and boredom on the Driver experience	31 st March 2008	Steve Charlick - SPAD Reduction Team
Review of the Instructor Operator Role	31 st March 2008	Steve Charlick - SPAD Reduction Team
Review of the recruitment and selection process, including success of previous revisions.	31 st March 2008	Steve Charlick - SPAD Reduction Team
Development of improved performance management metrics for SPADs.	31 st March 2008	Steve Charlick - SPAD Reduction Team

Programme 3: Reduction in Injury Rate

Milestone	Date	Lead Manager
Lost Time Injury data reviewed, cleansed and root causes established.	30 th June 2007	Jill Collis – General Manager SQE Operations
Identification of good practice, incorporating this into improvement programmes to reduce incidence and consequence of injuries.	30 th November 2007	Jill Collis – General Manager SQE Operations
Ensuring adequate number of Display Screen Equipment assessors are available and assessments are undertaken.	31 st March 2009	Jill Collis – General Manager SQE Operations

Milestone	Date	Lead Manager
Develop Coordinated safety campaigns based on risk based topics and focus drive to ensure controls are in places and effective.	31 st March 2009	Jill Collis – General Manager SQE Operations

Programme 4: Risk Assessment Model and Processes

Milestone	Date	Lead Manager
Complete the review of the QRA Mode for Ventilation (L236.5.1)	31 st March 2008	David Burton, General Manager SQE Systems and Assurance
Complete the review of the QRA Model for Derailment	20 th August 2007	David Burton, General Manager SQE Systems and Assurance
Complete the review of the QRA Model for Collision between Trains	15 th October 2007	David Burton, General Manager SQE Systems and Assurance
Complete the review of the QRA Model for Collision with Object	17 th September 2007	David Burton, General Manager SQE Systems and Assurance
Review the QRA Models to reflect the closure of the East London Line	31 st March 2008	David Burton, General Manager SQE Systems and Assurance
Confirm that Circle Line models align with new management structure	31 st March 2008	David Burton, General Manager SQE Systems and Assurance
Update the QRA Models to reflect the transfer of TOC stations to LU control	31 st March 2008	David Burton, General Manager SQE Systems and Assurance
Review the QRA Models to reflect the W&C Line upgrade (including additional train)	31 st March 2008	David Burton, General Manager SQE Systems and Assurance
Update the QRA Models to reflect Step free access programme	31 st March 2008	David Burton, General Manager SQE Systems and Assurance
Review the QRA Models to reflect Arcing issues from issues log	31 st March 2008	David Burton, General Manager SQE Systems and Assurance
Incorporate 'CONNECT' deliverables into QRA models	Within 6 months of project completion.	David Burton, General Manager SQE Systems and Assurance

Programme 5: Comparative Indices of Accident Precursors

Milestone	Date	Lead Manager
Identify new work streams to benchmark LU and other metros	30 th November 2007	Jill Collis, General Manager SQE Operations
Provide LU comparison data to CoMet	28 th May 2007	Jill Collis, General Manager SQE Operations
Review LU's performance against CoMet report and identify areas to follow up for adoption of best practice	Programme developed within 6 weeks of receipt of CoMET report	Jill Collis, General Manager SQE Operations

Programme 6: Workplace Violence Reduction

Milestone	Date	Lead Manager
LU/BTP to review the effectiveness of the measures implemented to date and jointly develop the workplace violence mitigation programme to further enhance these controls.	31 st May 2007	Aidan Harris – Manager Workplace Violence Unit.
Performance benchmarks for the effectiveness of the joint LU/BTP Workplace Violence Reduction Unit will be developed and implemented.	31 st July 2007	Aidan Harris – Manager Workplace Violence Unit.

Sub-Objective 2: Ensure security arrangements are strengthened as far as reasonably practicable

The programmes for delivering this sub-objective are not published in the public domain. However, progress against these programmes is track via the Overview Business Planning Database.

Sub-Objective 3: Continue to streamline health and safety standards and assurance arrangements

Programme 1: Standards Development

Milestone	Date	Lead Manager
In respect of step free access projects facilitate the achievement of an appropriate balance between fire risk at stations and appropriate engineering and other control measures	31 st December 2007	David Burton, General Manager SQE Systems & Assurance
Undertake a review of QUENSH contract conditions and develop and agree a proposal for effective alternative arrangements	31 March 2008.	David Burton, General Manager SQE Systems & Assurance
Refinement of those standards that most concessions are sought against to reduce the need for concessions.	31 March 2008	Catherine Behan, General Manager SQE Contracts

Programme 2: Assurance Regime Strengthening and Rationalisation

Milestone	Date	Lead Manager
Progressively implement improvements to root cause analysis and business improvement utilisation of audit results.	31 March 2008	David Burton, General Manager SQE Systems & Assurance
Develop, trial and evaluate use of new assurance standards on a range of project types	31 st March 2008	John Downes / Cathy Behan
Deliver training in the preparation of LU Verification Activity Plans for relevant LU directorates,	31 st October 2007	John Downes – Head of Technical Assurance
Develop and deliver training in collaborative working for relevant LU directorates	31 st March 2008.	John Downes – Head of Technical Assurance

Programme 3: Working Reference Manual Rationalisation

Milestone	Date	Lead Manager
Implementation of the LU Rule Book	31 st May 2007	Mike Maynard – Head of Operational Support
Establish the Rule Book benefits rationalisation team and maximise benefits from LU Rule Book.	TBC	Mike Maynard – Head of Operational Support

Milestone	Date	Lead Manager
Introduce improvements to safety critical communications and monitor compliance.	30 th November 2007	Mike Maynard – Head of Operational Support
Review and replacement of Line Supplements	TBC	Mike Maynard – Head of Operational Support
Review and replacement of Defective in service instructions	TBC	Mike Maynard – Head of Operational Support
Develop and implement a programme to review possession planning arrangements.	TBC	Mike Maynard – Head of Operational Support

Programme 4: Compliance with New/Revised Health and Safety Regulations

Milestone	Date	Lead Manager
Review compliance with the revised Construction (Design and Management) Regulations 2007.	31 st March 2008	Catherine Behan, General Manager SQE Contracts
A programme will be developed and implemented to fully meet the risk assessment requirements of the Regulatory Reform (Fire Safety Order).	31 st March 2008	David Burton, General Manager SQE Systems & Assurance

Sub-Objective 4: Further enhance the competencies of LU managers and staff to ensure the necessary standards are consistently achieved

Programme 1: Decision Making and Better Use of the Risk Assessment Models

Milestone	Date	Lead Manager
Communicate 2006 QRA models in line with communications plan	31 st March 2008	David Burton, General Manager SQE Systems and Assurance

Programme 2: Enhancement of Incident Management Skills and Processes

Milestone	Date	Lead Manager
Implementation of cascade of best practice incident investigation skills to those who undertake local investigations.	31 st December 2007	Jill Collis, General Manager, SQE Operations

Programme 3: Risk Based Competence Management System (CMS) for Safety Critical for Workers

Milestone	Date	Lead Manager
Implementation of the improved competence management process across all Lines, for all safety critical workers	31 st January 2008	Mike Maynard – Head of Operational Support



Note. All the programmes summarised above are entered in more detail with interim milestones on the Overview Business Planning Database. This is available on LU managers' desktop system in LU and enables all concerned to ensure that the whole programme is delivered to target.

Criteria for actions driving the Safety Improvement Plan

The agreed drivers for identifying and developing any actions or strategies which need to be included in the safety plan are as follows:

- Legislation – This includes any legislation / guidance / standards that have been or are going to be introduced or amended and require action to gain compliance.
- Assurance - Results and actions arising from assurance and investigative activities. (Third party audit findings and significant trends identified from internal audits).
- Actions required to maintain compliance with LU's Safety Certificate and Safety Authorisation and Infracos' Contractual Safety Cases.
- Significant issues raised by staff -This is done through analysis of issues raised through formal health and safety representative meetings and annual safety conferences.
- Significant events – This includes improvements identified as a result of any significant events that have occurred either internally or externally.
- Analysis of Safety Risk Performance statistics.
- Asset maintenance Plans including elements within the Asset Maintenance Plans which are specifically designed to improve safety.
- Significant corporate level improvements identified from both quantified and qualitative risk assessments
- Ongoing activities from the previous safety plan, programmed for completion in 2007/8 or later.