Manual

Rail Safety Management System

<table>
<thead>
<tr>
<th>Date of Issue: 30/06/2015</th>
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<tbody>
<tr>
<td>Owner: Kevin Tarrier – HAL Rail Compliance Manager</td>
<td>Status: Approved</td>
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<td>Approver: Mark Chestney – HAL Head of Rail</td>
<td>Date Published: 30/06/2015</td>
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</tbody>
</table>
## Contents

### Table of Contents

1. Purpose & Context .......................................................................................................................... 3
   1.1. Purpose ........................................................................................................................................ 3
   1.2. Scope .......................................................................................................................................... 3
   1.3. Structure of the Safety Management System ........................................................................... 3
   1.4. Integration with other Management Systems ............................................................................ 5
2. Responsibilities .............................................................................................................................. 5
3. Definitions ....................................................................................................................................... 5
4. Setting Expectations ........................................................................................................................ 6
   4.1 Policy ......................................................................................................................................... 6
   4.2 Planning & Objectives ................................................................................................................ 9
5. Goal Setting & Action Planning ..................................................................................................... 10
   5.1 Legal/Regulatory Requirements ............................................................................................... 10
   5.2 Risk Management .................................................................................................................... 10
   5.3 Change Management ................................................................................................................ 11
6. Ownership & delivery .................................................................................................................... 12
   6.1 Roles & Responsibilities .......................................................................................................... 12
   6.2 Resource Management ............................................................................................................ 13
   6.3 Consultation, Communication & Reporting ........................................................................... 14
   6.4 Delivery Management ............................................................................................................. 14
   6.5 Reporting ................................................................................................................................ 15
7. Measuring Performance ................................................................................................................. 16
   7.1 Monitoring ............................................................................................................................... 16
   7.2 Audit & Assurance ................................................................................................................... 16
   7.3 Documentation & Records ........................................................................................................ 17
   7.4 Incident Investigation ............................................................................................................... 18
8. Continual Improvement .................................................................................................................. 19
   8.1 Corrective & Preventative Action ............................................................................................ 19
   8.2 Management Review ............................................................................................................... 19
   8.3 Improvement .......................................................................................................................... 19
1. PURPOSE & CONTEXT

1.1. Purpose

HAL places safety on an equal status with other business objectives, and is committed to protecting the safety of its staff, partners, contractors and others affected by its operations, and conducting its business in a responsible manner.

The purpose of this Safety Management System Manual is to define the policy, strategy and arrangements for the management and assurance of safety throughout Heathrow Rail Operations.

The Safety Management System (SMS) described in this manual meets the Health and Safety at Work Act 1974 and other relevant safety legislation, standards and other contracted requirements and in alignment with the safety management system operated by Heathrow Airport and its aviation related duties. Where needed, the system may be independently certified.

This SMS defines a consistent and cohesive approach to the management of safety throughout all business areas.

Questions or comments about this manual or any safety issue are always welcome and may be addressed to HAL’s Head of Rail.

1.2. Scope

Under present legislation HAL does not have a principal role with respect to the day to day operation and maintenance of the railway infrastructure, these lie with the Operators and Maintainers as Transport Undertakings and Infrastructure Managers respectively. However, HAL being an informed and interested asset owner has responsibility to manage and oversee the activities of these organisations and the safe delivery of its own and 3rd party operational activities connected with any change or development to HAL rail infrastructure.

1.3. Structure of the Safety Management System

The overall approach mirrors the Plan-Do-Check-Act philosophy, which is presented across four key headings, as shown in the segments below, with continuous improvement being at the heart of the system.

![Figure 1 Systems Structure]
Setting Expectations
- Establish the Company’s Safety Policy and Standards.

Goal setting and Action Planning
- Identify the legal and other requirements which we must meet, and plan for compliance.
- Identify and analyse safety hazards, assess and evaluate risks.
- Establish objectives and targets for improvement, consistent with policy.
- Develop program(s) to achieve HAL’s safety objectives.

Ownership and Delivery
- Document the core elements of the management system.
- Define the organisation, roles and responsibilities for safety.
- Communicate health and safety information to and from employees and other interested parties.
- Enable our people to be competent, involved, and motivated.
- Procedures to be followed.
- Have plans for responding to safety incidents and emergencies.

Measuring Performance
- Monitor and measure our safety performance.
- Assure the safety compliance of our contractors and partners.
- Audit our SMS to check:
  - it is properly implemented and maintained;
  - it conforms to planned arrangements;
  - it is effective in meeting HAL’s policy and objectives; and
  - the adequacy, suitability and effectiveness of HAL SMS.
- Use performance feedback and review results to:
  - Improve the safety management system; and
  - Achieve improvements in overall safety performance.

The overall approach to the management of the documentation is to divide it across three tiers as shown in Figure 2 below.

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Figure 2 Document Hierarchy
1.4. Integration with other Management Systems

This is a stand-alone document which is aligned and linked with, but not part of the Heathrow Airport Ltd Safety Management System for Aviation. The document recognises the interfaces with the aviation system arising from the reporting structures within the Airport Engineering function, and the utilisation of certain reporting structures and management review forums.

2. RESPONSIBILITIES

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heathrow Airport Ltd (HAL)</td>
<td>Owner of railway infrastructure from Heathrow Airport Junction to Heathrow Airport (including stations at Heathrow Airport)</td>
</tr>
<tr>
<td>Network Rail</td>
<td>ROGS <strong>Infrastructure Manager</strong> (as maintainer of railway infrastructure from Paddington to Heathrow Airport, except for stations at Heathrow Airport). Owner of railway infrastructure from Paddington to Heathrow Airport Junction</td>
</tr>
<tr>
<td>Heathrow Express</td>
<td>ROGS <strong>Transport Undertaking</strong> (as a train operator). ROGS <strong>Infrastructure Manager</strong> and <strong>Responsible Person</strong> under the Regulatory Reform Fire Safety Order 2005 (as manager and operator of Heathrow Express stations at CTA, T4 and T5). Operation of the Heathrow Express Control Room (HECR)</td>
</tr>
<tr>
<td>3rd Party Contractors</td>
<td>Compliance with HAL SMS (when contracted by HAL). Compliance with Infrastructure Manager’s SMS when working on HAL owned railway infrastructure (HEx’s SMS for Station Infrastructure and Network Rail’s SMS for all other HAL owned railway infrastructure). The terms “3rd Party Contractor”, “Business Partner” and “Supplier” are interchangeable within this document.</td>
</tr>
</tbody>
</table>

3. DEFINITIONS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident</td>
<td>see “incident”</td>
</tr>
<tr>
<td>ALARP</td>
<td>‘As Low As Reasonably Practicable’ The level to which workplace risks are controlled by weighing the risk against the trouble, time and money needed to control it</td>
</tr>
<tr>
<td>Assurance</td>
<td>Activity to determine overall efficiency &amp; effectiveness of systems and processes and compliance with legal &amp; regulatory requirements</td>
</tr>
<tr>
<td>Audit</td>
<td>Systematic examination to determine whether activities and related results conform to planned arrangements and whether these arrangements are implemented effectively and are suitable for achieving the policy and objectives</td>
</tr>
<tr>
<td>Competence</td>
<td>The ability to perform activities to the expected standard</td>
</tr>
<tr>
<td>Continual improvement</td>
<td>Process of enhancing the Safety Management System, to achieve improvements in overall occupational health and safety performance, in line with the safety policy</td>
</tr>
</tbody>
</table>
### 4. SETTING EXPECTATIONS

#### 4.1 Policy

**Purpose**

The purpose of this Policy is to set out and communicate HAL’s approach to ensuring that it operates and assures all safety activity in order to reduce all risks to As Low As Reasonably Practicable (ALARP) and positively manage our impact on the environment.

**Our Vision**

To eliminate all preventable illnesses, injuries, environmental issues and business losses arising from unsafe conditions or acts across HAL rail infrastructure.

**Our Policy**

**Safety Culture:** HAL will embed a culture of safety across all its areas of responsibility through provision of clear values and principles.

**Cooperation:** HAL will work closely with its partners, contractors and stakeholders to plan, implement and maintain an assurance regime, based on systems are robust and tested, and with which HAL are confident that everyone involved in its operation is competent and safe in carrying out their duties on HAL’s infrastructure.
Continual Improvement: HAL continually challenge its safety performance through appropriate investigation of all incidents and issues in a timely manner, listening to the safety concerns and observations of its staff, contractors, customers and stakeholders; taking appropriate action to address all issues identified; and setting ourselves challenging performance targets for safety.

Recognise: HAL recognises the effects of its individual and corporate performance at work on everyone’s safety and wellbeing and understand how it can effectively mitigate the risks to HAL, customers and the environment.

Guidance: The Operational Leadership Team will champion a safe working environment so that HAL have the right skills and competences across the organisation to implement this policy and make sure everyone goes home safely each day.

Communication of Policy
This policy shall be communicated to all employees and any relevant 3rd parties including those engaged in the maintenance and operation of HAL’s rail infrastructure assets.

It should be noted that this policy augments, and is to be read in conjunction with, the statutory H&S Policy for Heathrow Airports Limited.

Management review of this Policy
This policy will be reviewed on an annual basis from the date of publication by the Head of Rail.
This Policy is supported by the key business policies shown in Table 1 below. Whilst the policies are specific to their stated purpose identified in the table, the table also identifies the principal health and safety implications which have a relevance to HALS’s SMS.

<table>
<thead>
<tr>
<th>Policy</th>
<th>Document Ref</th>
<th>Purpose</th>
<th>H&amp;S Principal Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health &amp; Safety Policy</td>
<td>Refer to the HAL document management system¹</td>
<td>Provide direction to utilise the Approved Code of Practice (ACoP) for notifiable and Non-notifiable projects</td>
<td>Integration of H&amp;S into the management of projects</td>
</tr>
<tr>
<td>Asset Operation Policy</td>
<td>HP/14/01A</td>
<td>Assets owned by Heathrow are operated in the appropriate manner</td>
<td>Minimisation of risk to anyone using the assets through use of trained and competent staff/contractors</td>
</tr>
<tr>
<td>Risk Management</td>
<td>Refer to the HAL document management system²</td>
<td>All significant risks are identified, assessed and managed</td>
<td>Implementation of mitigation and responsibility for reduction of all risk types</td>
</tr>
<tr>
<td>Drugs &amp; Alcohol (Substance Abuse Policy)</td>
<td>Refer to the HAL document management system³</td>
<td>Defines the rules and expectations for all staff regarding the consumption of alcohol, drugs and illegal substances</td>
<td>Protects employees and the safe running of the business from dangers of misuse where such activities could impair or compromise safety</td>
</tr>
<tr>
<td>Rail Infrastructure Management</td>
<td>SMS0504</td>
<td>Outlines maintenance approach for all types of rail infrastructure</td>
<td>All safety critical infrastructure is fit for purpose</td>
</tr>
<tr>
<td>Whistle Blowing</td>
<td>Refer to the HAL document management system⁴</td>
<td>Encompasses the intent of ‘The Public Interest Disclosure Act (PIDA) 1998’ in order to provide a safe working environment for all employees</td>
<td>Scope covers endangering the health &amp; safety of any person</td>
</tr>
</tbody>
</table>

³ [Link](http://lhr.thehub.uk.baa.com/depts/HeathrowHR/policies/Documents/Substance%20Abuse%20Policy%20Dec%202012.pdf)  
⁴ [Link](http://lhr.thehub.uk.baa.com/depts/HeathrowHR/policies/Documents/Whistle%20Blowing%20Policy.pdf)
Information & Records Management | 10000-XX-PR-XXX-000333 | Defines approach for the effective management and maintenance of records | Each business unit has responsibility for filing, indexing and storing records to meet business and legal requirements

| Table 1 HAL Supporting Tier 1 Documents |

### 4.2 Planning & Objectives

#### Our Vision

The improvement of the HAL’s safety performance by reducing the number of accidents and incidents in an environment where everyone returns home safely at the end of the day, and that HAL does not put any airport operations, members of the public or 3rd parties at risk whilst using, operating or managing its rail infrastructure assets.

#### Our Strategy

HAL will work with its staff, suppliers, partners and stakeholders to achieve its vision through:

- Setting challenging targets for the future that are managed through meeting leading and lagging indicators.
- The provision of visible, passionate and effective H&S leadership and behaviours that support and improve the safety culture and seek to engage people at all levels.
- Establishing and maintaining effective H&S standards and management processes, including specific references to the importance attached to excellence in workforce engagement, welfare and occupational health.
- Appointing only safe and competent suppliers with the demonstrable ability to deliver against our H&S standards and our targets within safety critical operational constraints.
- Cooperating and working with partners, contractors and stakeholders to plan, implement and maintain an assurance regime.
- Providing suppliers with appropriate information and allowing sufficient resources, including both time and money, for work to be undertaken with due regard to H&S requirements.
- Having strategies in place to identify and manage risks to the airport that may arise from rail infrastructure activities and mitigate these risks to ALARP.
- Enabling shared learning and performance improvement across rail infrastructure activities.
- Thoroughly investigating accidents, with Heathrow oversight where appropriate, and making sure that lessons learned are shared.
- A rigorous change management process so that no asset goes into service or system is changed without a rigorous commissioning and handover process such that users are confident that operational and business risks are ALARP.
- Implementing an assurance regime which validates that assets we provide for Train Operating Companies (TOCs) to deliver their service are safe and fit for purpose.

#### Planning for Safety

HAL understand that safety needs change over time to which end HAL will integrate its activities into the Health, Safety and Welfare Engineering Improvement Plan in order to fully mitigate the issues arising during the change programme related to asset separation.

The HAL Engineering Senior Management team, with support and assistance from the HAL Health & Safety team, will provide adequate resources to enable the delivery of the plans. The planning process is facilitated through the monthly Engineering Governance Meetings, whose remit is to not only check that quantitative targets and actions...
are appropriately monitored, but also to provide a review and challenge to drive continuous improvement of the SMS.

Our Objectives

In order to deliver the overall safety strategy the plans have been developed to contain a series of Specific Measureable Achievable Realistic Timed (SMART) objectives which are made up of a mix of quantitative and aspirational targets, that focus not only on improvement of processes and procedures and ways of working, but also general promotion of a healthy working environment.

Engineering Objectives are defined in three areas: Reduce Costs, Improvement Performance and Increase Engagement.

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<thead>
<tr>
<th>Reference</th>
<th>Title / Description</th>
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<tr>
<td>SMS1002</td>
<td>Management of Safety Objectives and Targets</td>
</tr>
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</table>

5. GOAL SETTING & ACTION PLANNING

5.1 Legal/Regulatory Requirements

HAL are aware of how its activities are affected by legal and other requirements, and shall communicate this information to relevant personnel.

HAL will, implement and maintain a procedure that identifies legal and other safety requirements applicable to its operation which shall assure that:

- Standards and Legal requirements are reviewed to establish their potential relevance to and impact on HAL’s operations; and
- Results of the review are communicated to staff and other relevant interested parties.

Dissemination of relevant updates of legal and other requirement will be achieved through notification to applicable teams and managers and update of relevant safety related documents and procedures in line with the published document management procedure. In the event of significant changes a risk assessment will be carried out by the Head of Rail and appropriate managers from the affected area of the business. This will quantify the impact of the change and what changes to the management area are required, and how such changes will be implemented, including, any necessary training and staff briefing.

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<tr>
<th>Reference</th>
<th>Title / Description</th>
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<tr>
<td>SMS0402</td>
<td>Industry Liaison and Standards Review</td>
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5.2 Risk Management

HAL shall, through the processes of hazard identification and risk assessment, have a total appreciation of all significant hazards that impact upon its operations, be they carried out by HAL staff or by partners and contractors.

HAL shall conduct on-going hazard identification and risk assessment in line with the HAL Risk and Change Management Framework which shall cover the following:

- Routine and non-routine activities;
- Contracted or sub contracted activities;
- Activities of all people having access to the workplace (including stations, rolling stock, rail infrastructure, work sites and offices);
• Behaviour of asset defects and deformities; and
• Facilities at the workplace, whether provided by the company or others.

HAL will use the HAL Engineering Risk Management Framework, which comprises a set of components that provide the foundations and organisational arrangements for designing, implementing, monitoring reviewing and continually improving risk management throughout the company.

This framework provides HAL with an approach to hazard identification and risk assessment which:

• Defines the scope, nature and timing in order that it is proactive rather than reactive;
• Provides for the classification of risks and identification of those that are to be eliminated or controlled by measures as defined in section Policy and Objectives and the Health, Safety and Welfare Engineering Improvement Plan - 2015;
• Is consistent with operating experience and the capabilities of risk control measures employed;
• Provides input into the determination of facility requirements, identification of training needs and/or development of operational controls; and
• Provides for the monitoring of required actions to support both the effectiveness and timeliness of their implementation.

The overall scope of risk assessment includes the risks to all affected populations (staff and contractors, as well as other members of the railway group, passengers, and other individuals who may be affected).

The core purpose of risk assessment is to identify the measures needed to make sure the HAL rail infrastructure is maintained in a safe manner.

The Engineering Risk Management Framework specifies risk assessments be carried out at four levels considering location, task, change and asset specific safety risks amongst other factors.

In addition to the above factors the HAL Rail Infrastructure team also considers and manages the imported risks to their network arising from its physical connection to the Network Rail owned and maintained running line from Paddington to the mouth of the Heathrow tunnel.

This ‘imported risk’ is managed through liaison with Network Rail and through sight of the Network Rail Risk Assessment for this section of track. Risks under consideration will include changes to HAL rail infrastructure and presence of contractors and workers on or about the running line near the tunnel entrance.

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<tr>
<th>Reference</th>
<th>Title / Description</th>
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<tbody>
<tr>
<td>HP/14/005</td>
<td>Health, Safety &amp; Environment General Risk Assessment</td>
</tr>
<tr>
<td>HP/14/037</td>
<td>Risk Assessment Procedure</td>
</tr>
<tr>
<td>HAL-EMS-LDOC-002</td>
<td>Engineering Risk Register</td>
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</table>

### 5.3 Change Management

In order that no adverse effects are suffered across the business prior to any changes (transition from one state to another) being introduced, the manager responsible will consider the potential implications of the proposed change from a systems perspective (across the organisation) identifying any risks that may arise, seek appropriate approval, and can control the risks during implementation and return to operation phases of the transition.

The Rail Operations team shall identify internal and external changes which may affect its established processes and activities, and manage these through the HAL process for the management of change. In conjunction with this it shall utilise the HAL Engineering Risk Management Framework process so that there is no adverse effect on safety.
The purpose of this approach is to facilitate controlled transition and implementation and:

- Make sure that any proposed change is developed and promoted in-line with HAL objectives to provide infrastructure assets that are safe and fit for purpose;
- Support compliance with the HAL Safety Management System;
- Support compliance with applicable enabling Acts and Orders, relevant Health and Safety Legislation and other standards (e.g. British and European Standards), industry codes of practice, procedures etc.;
- To identify all credible hazards and potential loss to HAL, evaluate and record them through the engineering change control process; and
- To minimise the risk to HAL including its passengers, staff, contractors and the general public through a co-ordinated process of hazard identification, risk assessment and mitigation.

The change management processes for the implementation of any proposed change to HAL rail infrastructure requires authority to proceed from HAL’s Assurance Review Panel (ARP).

<table>
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<th>Reference</th>
<th>Title / Description</th>
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<tbody>
<tr>
<td>Refer to the HAL document management system</td>
<td>HAL ARP TOR and Process</td>
</tr>
<tr>
<td>HP/13/013 V1.0</td>
<td>Change Control for Life Safety Systems</td>
</tr>
<tr>
<td>HP/13/026</td>
<td>Engineering Principles for Change Control</td>
</tr>
</tbody>
</table>

### 6. OWNERSHIP & DELIVERY

#### 6.1 Roles & Responsibilities

HAL is responsible for maintaining a suitable organisation structure to provide management teams within the Rail Function with the necessary awareness of standards and legislation requirements to enable appropriate risk controls and assurance activity to be applied.

HAL’s “Management Representative” for safety is the Head of Rail within the Engineering team, and in this position reports directly to the Engineering Operations Director.

The Head of Rail has the responsibility and authority for the development, maintenance and continual improvement of the HAL SMS in relation to the Rail Infrastructure and its management.

In addition to the above, the Head of Rail has responsibility for:

- Maintaining up to date knowledge of applicable safety regulations and how each applies to HAL’s operations;
- Continually reviewing HAL safety data to determine where safety practices can be improved;
- Providing guidance and instructions to partners, contractors and Project Safety Representatives, as required;
- Acting as liaison between HAL and regulatory authorities;
- Conducting audits on the SMS;
- Checking that adequate assurance activity is in place in relation to activities of other stakeholders under ROGS;
- Assuring competence of operators and contractors and activity involved in safety critical work; and

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5 http://lhr.thehub.uk.baa.com/teams/Operations/engineering/RO/HAL%20Heavy%20Rail%20SMS/12.%20Checking%20and%20Auditing/12.5%20HAL%20ARP/07%20HAL%20ARP%20Terms%20of%20Reference%20and%20Process%20-%20Draft%202012%20-%202009-12-14.docx
Under the ROGS regulation Network Rail hold the role of Infrastructure Maintainer through a contract with HAL. It is noted that HAL itself have no direct responsibilities under ROGS.

Within this role Network Rail are responsible for not only safe maintenance of the HAL rail infrastructure, but also for risk assessment in relation to their day to day activity.

### 6.2 Resource Management

#### Internal Resources

The Senior Management team of HAL Engineering shall determine and provide the resources needed to implement and maintain the SMS and continually improve its effectiveness, so that staff and contractors deliver a service that complies with legislation and the requirements of other applicable standards.

This includes the provision of training for its own staff whose role affects safety. Staff shall be competent on the basis of appropriate education, training, skills and experience through:

- Determination of the necessary competence for personnel performing work affecting safety;
- Provision of training or other actions to satisfy these needs;
- Evaluation of the effectiveness of the actions taken;
- Awareness of the relevance and importance of their activities and how they contribute to the achievement of the safety objectives; and
- The maintenance of appropriate records of education, training, skills and experience.

#### External Resources

In respect of HAL rail third party or directly contracted resources (outside of Network Rail contract) whose role affects the safety of the infrastructure, HAL will take appropriate steps to assure themselves and their stakeholders that the staff engaged are competent on the basis of appropriate education, training, skills and experience. At the initial stages this will involve engagement with and alignment with the HAL procurement process in order to identify suitable resources.

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6 Refer to the HAL document management system Procurement department page: http://lhr.thehub.uk.baa.com/DEPTS/PROCUREMENT/Pages/default.aspx
6.3 Consultation, Communication & Reporting

The Head of Rail shall establish and maintain communication about safety matters that:

- Confirms that all staff and contractors have appropriate access to and are fully aware of the SMS and how their individual performance impacts upon it;
- Conveys and enables dissemination of safety information, especially that related to incidents, assessed risks and analysed hazards; and
- Explains implementation of new and/or changed safety procedures.

The Head of Rail shall establish, implement and maintain a structured meeting schedule where relevant information, actions and procedures are discussed with its staff, partners and contractors.

The HAL Rail Operations Team shall use formal documented arrangements to provide consistency in receipt, production and dissemination of information.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Title / Description</th>
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</thead>
<tbody>
<tr>
<td>SMS0402</td>
<td>Industry Liaison and Standards Review</td>
</tr>
<tr>
<td>SMS0610</td>
<td>Co-operation on Safety Communications</td>
</tr>
<tr>
<td>Refer to the HAL document management system⁷</td>
<td>Engineering &amp; Baggage Services Communication &amp; Engagement Strategy</td>
</tr>
<tr>
<td>Refer to the HAL document management system⁸</td>
<td>Health &amp; Safety Performance Dashboard (Supplier)</td>
</tr>
<tr>
<td>Refer to the HAL document management system⁹</td>
<td>Health &amp; Safety Performance Dashboards (Staff)</td>
</tr>
</tbody>
</table>

6.4 Delivery Management

HAL shall develop, implement and maintain a suite of procedures to manage operational risks, to fulfil the safety policy and objectives, and conform to legal and other requirements. These procedures shall manage and control operating criteria that have been identified from the hazard identification and risk assessment process and where control measures need to be applied.

HAL has no direct role in the execution of maintenance activity; however it is responsible for assuring the safe activity of its contractors, and therefore has procedures in place to enable this responsibility.

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⁹ [http://lhr.thehub.uk.baa.com/teams/Operations/engineering/MG/HSE%20monthly%20dashboard/Forms/AllItems.aspx](http://lhr.thehub.uk.baa.com/teams/Operations/engineering/MG/HSE%20monthly%20dashboard/Forms/AllItems.aspx)
6.5 Reporting

In line with its operations HAL will operate a reporting framework in order that information and knowledge concerning the operation of the business is captured and disseminated to allow informed decision making and continual improvement of the SMS.

To facilitate informed decision making and continual improvement, information relating to incidents involving HAL staff, its contractors, passengers and anyone affected by HAL’s activities will be collected, analysed and presented to Top Management through the management review process.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Title / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMS0701</td>
<td>Control of Safety Critical Work</td>
</tr>
<tr>
<td>SMS0605</td>
<td>Fire Safety Management Arrangement at Station</td>
</tr>
<tr>
<td>SMS0203</td>
<td>Worksafe Procedure</td>
</tr>
<tr>
<td>SMS0607</td>
<td>Site Access permit Arrangements</td>
</tr>
<tr>
<td>HP/13/013</td>
<td>Life Safety Systems – Change Control</td>
</tr>
<tr>
<td>HAL-ENG-CSP-01</td>
<td>Confined Spaces Operating Procedure</td>
</tr>
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<thead>
<tr>
<th>Reference</th>
<th>Title / Description</th>
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<tbody>
<tr>
<td>HP/14/009</td>
<td>Accident &amp; Incident Reporting Procedure</td>
</tr>
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</table>
7. MEASURING PERFORMANCE

7.1 Monitoring

The Head of Rail shall identify the key performance parameters for its safety performance across the HAL Rail Operations activities.

The HAL monthly management review meetings are the forum which managers shall monitor and measure safety performance through:

- Measuring the extent to which the objectives defined in its Health, Safety and Welfare Engineering Improvement Plan - 2015 are met;
- Monitoring compliance with regulatory requirements;
- Measuring and monitoring operational criteria achievement;
- Analysing incidents and evidence of deficient safety performance;
- Analysing the results of regular health and safety inspections and audits; and
- Measuring outputs of the assurance regime.

The results of all measurement and monitoring are analysed against specified performance standards / acceptance criteria, and shall facilitate appropriate corrective and / preventive action.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Title / Description</th>
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</thead>
<tbody>
<tr>
<td>SMS1001</td>
<td>HAL Governance and Monitoring Processes</td>
</tr>
<tr>
<td>SMS0901</td>
<td>Arrangements for Station Inspection</td>
</tr>
<tr>
<td>SMS0902</td>
<td>Arrangements for Tunnel and Rail Inspection</td>
</tr>
</tbody>
</table>

7.2 Audit & Assurance

Good safety assurance is the effective checking that what is stated in an SMS is carried out, that it is effective, and that it delivers the intended results.

The level of assurance to be undertaken is proportional to the level of risk and criticality of the task in question, with activity being classified as ‘Passive’ or ‘Active’. Passive Assurance are activities that do not require a member of the HAL audit team to make site visits, instead they are limited to the review and, if required, verification of evidence supplied. Active Assurance involves some form of direct contact or physical audit to observe first hand that an activity is being undertaken in accordance with published or documented procedures. In the case of an audit, the requirement is to obtain objective evidence where possible.

In addition to the formulation and publication of passive assurance measures for each contractor, audits will be carried out to evaluate the effectiveness of the SMS on a regular basis.

HAL shall develop, implement and maintain a procedure which establishes a program and schedule for conducting periodic audits in order to determine whether or not the SMS:

- Conforms to planned arrangements;
- Has been properly implemented and maintained; and
- Is effective in meeting the HAL’s Health and Safety Policy and objectives.
The audit procedure shall define the scope, frequency, methodologies and competencies, as well as the responsibilities and requirements for conducting audits and reporting results.

The audit program shall be based on:

- The results of risk assessments of HAL Rail Organisation’s activities; and
- Results of previous audits.

Wherever practical, audits shall be conducted by personnel independent of those having direct responsibility for the activity being examined.

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<tr>
<th>Reference</th>
<th>Title / Description</th>
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<tbody>
<tr>
<td>SMS0904</td>
<td>Management of Assurance, Audits and Improvement</td>
</tr>
<tr>
<td></td>
<td>Refer to the HAL document management system(^{11})</td>
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<td>Audit and Assurance Programme</td>
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7.3 Documentation & Records

HAL recognises the importance of complying with all safety legislation and is fully committed to achieving this objective. It is essential for all employees to be in possession or have access to all the necessary HAL standards and documents required to enable them to conduct their activities. It is also essential that any documents are up to date, legible and clearly identified.

To achieve this all staff that create and publish any information/documents in relation to the operation and management of the SMS will adhere to the processes and procedures set out in HAL Engineering Document Management process which provides assurance that:

- Documents are authored and approved;
- Documents and data can be located in the SharePoint Document Register;
- Documents and data shall be reviewed at least annually, revised as necessary and approved for adequacy;
- Current revisions of relevant documents and data are available at all locations where operations essential to the effective functioning of the safety system are performed;
- Records are controlled so that obsolete documents and data are promptly removed from all points of issue and points of use or otherwise assured against unintended use; and
- Archival documents and data retained for legal or knowledge preservation purposes or both, are suitably identified.

To demonstrate compliance with legal duties and to show effective health and safety management procedures are in place HAL will retain records for specific periods. The reason for this is that HSE Inspectors and union health and safety representatives have a legal right to inspect health and safety records. Inspectors appointed under the Regulatory Reform (Fire Safety) Order 2005 (RRO) can ask to see fire risk assessments, fire safety arrangements, fire drill and other relevant records.

HAL shall maintain records to demonstrate that its SMS operates effectively, and that processes have been carried out under safe conditions.

In line with Document Management Process HAL shall arrange that all information which HAL is required to maintain is kept, and that information is deleted where there is no business or legal requirement for it to be

\(^{11}\) [http://lhr.thehub.uk.baa.com/teams/Operations/engineering/RO/HAL%20Heavy%20Rail%20SMS/Forms/AllItems.aspx?RootFolder=%2fteams%2fOperations%2fengineering%2fRO%2fHAL%20Heavy%20Rail%20SMS%2f12%2e%20Checking%20and%20Auditing&FolderCTID=&View=%7b8b81D3f6b%2dCE45%2dD4D8B%2dA0E0%2dC0DF777B660D%7d](http://lhr.thehub.uk.baa.com/teams/Operations/engineering/RO/HAL%20Heavy%20Rail%20SMS/Forms/AllItems.aspx?RootFolder=%2fteams%2fOperations%2fengineering%2fRO%2fHAL%20Heavy%20Rail%20SMS%2f12%2e%20Checking%20and%20Auditing&FolderCTID=&View=%7b8b81D3f6b%2dCE45%2dD4D8B%2dA0E0%2dC0DF777B660D%7d)
Only CONTROLLED when accessed live in the HAL document management system.
UNCONTROLLED if electronically copied or printed.

retained. As such, HAL will maintain our records in a manner that they can be identified and retrieved as necessary in order to:

- Comply with legal and regulatory requirements;
- Support on-going privacy of any personal data that is held by HAL;
- Support HAL’s case in the event of engaging in or being subject to legal actions or audits of records; and
- Preserve information that has business value.

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<tr>
<td>refer to HAL document management system</td>
<td>Management of Records</td>
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<td>refer to the HAL document management system</td>
<td>Staff Briefing Records</td>
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<td>refer to the HAL document management system</td>
<td>HR Records</td>
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<tr>
<td>refer to the HAL document management system</td>
<td>Storage Licence Register</td>
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<tr>
<td>HAL-EMS-PRO-003</td>
<td>Document Management</td>
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7.4 Incident Investigation

HAL shall report and investigate accidents, incidents and non-conformances in order to prevent further occurrence of the situation by identifying and dealing with the root cause(s). Furthermore, these investigations and analysis help to eliminate potential causes of non-conformance.

HAL shall develop, implement and maintain a procedure which defines the responsibility and authority for the handling and investigation of accidents and incidents.

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<tr>
<td>SMS0104</td>
<td>HAL APOC for Emergency Management</td>
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13 [http://lhr.thehub.uk.baa.com/teams/Operations/engineering/RO/HAL%20Heavy%20Rail%20SMS/Forms/AllItems.aspx?RootFolder=%2fteams%2fOperations%2fEngineering%2fRO%2fHAL%20Heavy%20Rail%20SMS%2fF10%2e%2e%2fCompliance%20and%20Consultation%2fTool%20Box%20Talks%20and%20Staff%20Briefings&FolderCTID=%7b7b881d3f6b%2dCE45%2d4D8B%2dA0E0%2dC0DF777B660D%7d](http://lhr.thehub.uk.baa.com/teams/Operations/engineering/RO/HAL%20Heavy%20Rail%20SMS/Forms/AllItems.aspx?RootFolder=%2fteams%2fOperations%2fEngineering%2fRO%2fHAL%20Heavy%20Rail%20SMS%2fF10%2e%2e%2fCompliance%20and%20Consultation%2fTool%20Box%20Talks%20and%20Staff%20Briefings&FolderCTID=%7b7b881d3f6b%2dCE45%2d4D8B%2dA0E0%2dC0DF777B660D%7d)
14 [http://lhr.thehub.uk.baa.com/teams/Operations/engineering/RO/HAL%20Heavy%20Rail%20SMS/Forms/AllItems.aspx?RootFolder=%2fteams%2fOperations%2fEngineering%2fRO%2fHAL%20Heavy%20Rail%20SMS%2fF09%2e%2e%2fCompetence%20and%20Training&FolderCTID=%7b7b881d3f6b%2dCE45%2d4D8B%2dA0E0%2dC0DF777B660D%7d](http://lhr.thehub.uk.baa.com/teams/Operations/engineering/RO/HAL%20Heavy%20Rail%20SMS/Forms/AllItems.aspx?RootFolder=%2fteams%2fOperations%2fEngineering%2fRO%2fHAL%20Heavy%20Rail%20SMS%2fF09%2e%2e%2fCompetence%20and%20Training&FolderCTID=%7b7b881d3f6b%2dCE45%2d4D8B%2dA0E0%2dC0DF777B660D%7d)
15 [http://lhr.thehub.uk.baa.com/teams/Operations/engineering/RO/Lists/Storage%20Licence%20Register/AllItems.aspx](http://lhr.thehub.uk.baa.com/teams/Operations/engineering/RO/Lists/Storage%20Licence%20Register/AllItems.aspx)
8. CONTINUAL IMPROVEMENT

8.1 Corrective & Preventative Action
In line with the HAL Engineering Improvement Process the Rail Operations team shall develop, implement and maintain procedures which will capture areas for: system improvement; audit findings; management review actions; incident findings; and general performance failure issues are captured within the SharePoint Improvement register and associated process. The procedure will outline a Rail Infrastructure related procedure for Corrective Action and Preventive Action (CAPA) which defines the responsibility and authority to:

- Initiate, investigate, take corrective and preventive action, and verify its effectiveness across the rail infrastructure; and
- Take action to mitigate any consequences arising from accidents, incidents or non-conformances.

These procedures shall require that all proposed corrective actions are reviewed through the Engineering Improvement process prior to implementation. Any changes shall be implemented and the procedures updated.

Any corrective or preventive action taken to eliminate the cause of actual and potential non-conformances shall be appropriate to the magnitude of problems and commensurate with the safety risk encountered, and duly recorded within the Engineering Improvements Register.

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<tbody>
<tr>
<td>Refer to the HAL document management system(^\text{16})</td>
<td>Non-Conformance Register (Engineering &amp; AM Review Improvement Register)</td>
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8.2 Management Review
In addition to the monthly Engineering Governance Meeting that focus on ongoing and current performance issues and associated safety dashboards, the Head of Rail shall, at least annually, review the SMS to assess its adequacy, effectiveness, and continuing suitability to achieve its safety policy and objectives.

The results of the SMS reviews are reported to the corporate health and safety management system review.

The SMS review shall address the possible need for changes to policy, objectives and other elements of the SMS, in light of management system audit results, changing circumstances and the commitment to continual improvement.

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<tbody>
<tr>
<td>HAL-EMS-PRO-007</td>
<td>Management Review Process</td>
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<td>Refer to the HAL document management system(^\text{17})</td>
<td>MEG Assurance Review TOR</td>
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<tr>
<td>HAL-EMS-PRO-011</td>
<td>Internal Review Guidelines</td>
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8.3 Improvement
The SMS shall be subject to annual management system review to monitor its continuing fitness for purpose.


Continuous Improvement shall be achieved through:

- Evaluation of facilities, training, equipment, materials and documentation through safety audits and surveys;
- Evaluation of an individual’s or organisations performance to verify the fulfilment of their safety responsibilities;
- Reactive evaluations in order to verify the effectiveness of the system for control and mitigation of risk, e.g. incidents, accidents and investigations; and
- Tracking changes to confirm that they are effective.

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<tr>
<td>Refer to the HAL document management system(^\text{18})</td>
<td>Health, Safety and Welfare Engineering Improvement Plan - 2015</td>
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