

HLOS and Common Safety Targets – What you need to know

From April 2009 the Government's High Level Output Specification (HLOS) safety metrics and the European Commission's Common Safety Targets (CSTs) and National Reference Values (NRVs) came into force. The HLOS safety metrics and the CSTs/NRVs are complementary because, while the HLOS safety metrics address the overall risk profile for passengers and workforce, including for example, the risk from slips, trips and falls in stations, the CSTs/NRVs for passengers and the workforce are more focused on the risk arising from train accidents. This brief is produced to help RSSB members understand the significance of the targets to their businesses and what, if anything, is required of them. It summarises what the targets are and where the responsibilities lie for delivering them.

HLOS SAFETY METRICS

Description

The government's white paper Delivering a Sustainable Railway sets out the High Level Output Specification (HLOS). This describes the improvements in safety, reliability, and capacity that the government wants the industry to deliver during Control Period 4 which runs from April 2009 to March 2014 and the Statement of Funds Available (SoFA) to secure these improvements.

The required improvements in safety are quoted in terms of two metrics relating to the risk to passengers and workforce. These state that there should be a 3% reduction in the national level of risk for both passengers and workforce over the Control Period 4. The metrics are normalised by passenger km and workforce hours to enable effective comparisons; taking account of the passenger usage and amount of work done on the mainline railway. There is no requirement for the targets to be disaggregated to individual duty holders. It is therefore a collective requirement for RSSB members working with the industry as a whole, including the DfT, ORR and the trades unions, to achieve.

The HLOS only apply to activities on Network Rail Managed Infrastructure.

Domestic services operating over HS1 are part of the HLOS metric and incidents on these services that do not stem from the HS1 infrastructure will be included.

Roles and Responsibilities

- DfT – set the specification as part of the HLOS for Network Rail Managed Infrastructure
- RSSB members – deliver their obligations under safety legislation and Railways Act (1993) licenses, report safety performance through SMIS
- RSSB – collates railway operator plans through the Railway Strategic Safety Plan (SSP), collects the data for the assessment of delivery and monitoring of progress through the Safety Risk and precursor Indicator Models
- ORR – monitors progress against the HLOS in addition to normal HASAW safety regulation.

Delivery of the passenger safety metric will largely depend on reductions in the risk from accidents at stations and on trains which account for the vast majority of the risk. Reductions in train accident risk will have little effect on the metric but remains a key focus of railway operators. Delivery of the workforce safety metric will depend on reductions in accidents from slips/trips, manual handling, assaults etc. but fatality risk, although small, continues to be a key focus.

Passenger Safety Metric:

Level of risk to passengers at April 2009 is calculated as:

1.070 Fatalities and Weighted Injuries (FWI) per billion passenger km

Target at March 2014 = 1.038 FWI per billion passenger km

Workforce Safety Metric:

Level of risk to the workforce at April 2009 is calculated as:

0.134 FWI per million workforce hours

Target at March 2014 = 0.130 FWI per million workforce hours

Achieving the risk reduction

The SSP for 2009-14 estimates (from the information provided within the safety plans of RSSB members) the level of risk reduction that the industry plans to deliver over the period. This includes the safety initiatives within Network Rail's Strategic Business Plan. The following chart, taken from the SSP, shows the 3% reduction in both passenger and workforce risk required by the HLOS and demonstrates that both are expected to be achievable.



Assessment and Monitoring of delivery

The industry's Safety Risk Model (SRM) will be used as the primary means of measuring the performance of the industry against the safety metrics which exclude non physical assaults and the risks associated with High Speed 1. The base measuring point has been calculated using SRM v6 which was published in March 2009. The SRM will be updated at least once during the Control Period and again in March 2014 from which the risk reduction over the period will be calculated. Progress will be monitored by the ORR on a six monthly basis using information from RSSB's Precursor Indicator Model for train accidents and RSSB's ongoing data analysis for movement and non-movement accidents.

The focus of the monitoring will be on annual progress and industry level meetings will be held to address any identified problems and to agree remedial actions. The 2009 – 14 SSP predicts achievement of the safety metrics based on the aggregated forecasts and planned actions of railway operators.

What RSSB members need to do

ORR is of the view that RSSB members meeting the requirements of the Health and Safety at Work Act 1974 (HSWA) to manage risks so far as is reasonably practicable (SFAIRP) should ensure that the HLOS Safety metrics are met. Therefore RSSB members continuing to effectively manage safety risk with credible annual safety plans that detail planned remedial actions and their estimated safety benefits should be adequate to ensure achievement of the HLOS safety metrics by the whole industry.

COMMON SAFETY TARGETS

Description

The European Railway Safety Directive requires the European Rail Agency (ERA) to develop a set of Common Safety Targets (CSTs) for Member States (MS). The long-term aim is to prevent safety becoming a barrier to opening the rail market. They are based on the assumption that, although the level of safety differs greatly across all countries, the level of safety is acceptable in each. They seek to avoid compromising safety in countries with a superior safety performance. CSTs only relate to significant accidents associated with 'rolling stock in motion' and are quantified in terms of Fatalities and Weighted Serious Injuries (FWSIs). The CSTs cover approximately 40% of the overall risk on the railway.

An evolutionary process has been developed for the establishment of appropriate targets through the development of National Reference Values (NRVs) for each MS which precede the delivery of more meaningful CSTs. NRVs are common in definition but have different values for each MS.

CSTs and NRVs are set at Member State level for the whole railway system, and do not apply to individual transport operators. They are therefore the responsibility of the DfT to manage on behalf of the UK.

The CSTs were set at a level to ensure that MSs would comply without taking special improvement action. This equates to CSTs at a level equal to the highest NRV for a MS or the ten times the European average NRV, whichever is the lower.

All six NRVs are suitably normalised to enable effective comparison year on year taking account of the passenger and train usage in each MS. There are six NRVs adopted by the Commission for the UK in early 2009 covering; passengers (6.22 FWSI/bn train kms and 0.062 FWSI/bn pass kms), employees (8.33 FWSI/bn train kms), level crossing users (23 FWSI/bn train kms and 93 FWSI/bn train traverses), others (6.98 FWSI/bn train kms), unauthorised persons (94.7 FWSI/bn train kms) and whole society (131 FWSI/bn train kms).

The NRVs are based on the data recorded under the Common Safety Indicators (CSIs).

A second set of CSTs, to be adopted by the Commission before 30 April 2011, will reflect priority areas where safety needs to be improved further. This will be a key evolutionary stage towards achieving a harmonised European safety performance.

1 Ten serious injuries are considered to be statistically equivalent to one fatality. Minor injuries are not included. Serious injuries are defined as those requiring a 24 hour or longer stay in hospital This is different from a major injury which is defined in the Reporting of injuries, Diseases and dangerous Occurrences Regulations 1995.

2 Excluding suicides.

3 Only relates to passengers on-board a train. Accidents occurring to persons boarding and alighting trains or while waiting on platforms are classified as 'others'.

Roles and Responsibilities

- European Commission – sets the requirement for CSTs
- ERA – calculates and advises the Commission and monitors the delivery
- DfT – as the Member State is answerable to the Commission
- Transport Operators (RSSB members) – deliver their statutory obligations.
- RSSB – collects safety data and co-ordinates the reporting of the CSIs on behalf of the industry
- ORR – as the National Safety Authority represents UK at ERA and is responsible for agreeing remedial actions if necessary

Status of CSTs/NRVs in UK

The requirements of the CSTs/NRVs are considered to be subsumed within HSWA SFAIRP obligations. A transport operator's SMS which complies with all relevant requirements will assure the ORR that the operator contributes to achieving the CSTs/NRVs.

What if things go wrong?

The ERA has established a pragmatic methodology for assessing compliance with the NRVs. The method identifies two levels on non-compliance for each NRV, namely, 'possible' and 'probable' deterioration in performance of a MS. In the event of non-compliance the ERA will advise the Commission and the MS will be required to:

- 'Possible' deterioration – send a report to the Commission explaining the likely causes of the results
- 'Probable' deterioration - send a report to the Commission explaining the likely causes of the results and, if appropriate, submit a safety enhancement plan

In practice, through proactive monitoring of the CSI data and the NRVs values by RSSB, the UK will be aware of any problem well before the Commission publish the NRV results for each year.

If there is a problem in UK, the DfT will ask ORR to investigate and ORR will work with RSSB to understand if it is a 'real' or a 'statistical' issue. If one or more railway operators is found not to be complying with its legal obligations (HSWA/ROGS), ORR could take enforcement action

What RSSB members need to do

As with the HLOS safety metrics, focus on delivery of HSWA SFAIRP obligations through the development and adherence to their safety management systems.

⁴ Details of the methodology are provided in European Commission Decision 2009/460/EC