

Network Rail:
Infrastructure Investment
Reporting KPI Definitions
29th April 2009

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8.1 Director Safety Tours		
Period	Planned	
	Undertaken	
8.19A Contractor NCRs		
	Active	
	Overdue	
	Network Rail NCRs	
	Active	
	Overdue	
8.12L Contractor Safety		
Period	Contractor Hours	
	Fatality	
	RIDDOR Major Injuries	
	RIDDOR Lost Time Accidentd	
	Minor Accidents (No RIDDOR)	
	Period FWI	#DIV/0!
8.12M Network Rail Staff Safety		
Period	N/R Staff Hours	
	Fatality	
	RIDDOR Major Injuries	
	RIDDOR Lost Time Accidentd	
	Minor Accidents (No RIDDOR)	
	Period FWI	#DIV/0!
Near Misses/ Close Call		
	Near Misses	
	Close call	

Director Safety Tours

The practise of Directors making planned visits to the workplace to observe conduct and conditions and engaging people in discussion about safety, health and environmental aspects of their job.

Note: The term safety walkabout refers to the same activity.

Contractor NCR's

- **Active**
The number of Audit NCRs with a closure date for that period
- **Overdue**
The number of Audit NCRs overdue at the end of that period

Contractor/Network Rail Staff Safety

Hours

The figure for hours worked for each function is determined by multiplying the headcount, provided by the Human Resource Management System (HRMS) by a standardised weekly hour rate¹ plus any appropriate contractor hours as explained in the following table:

Function	Standardised Weekly Hour rate	Applicable Contractor Hours
Operations and Customer Services	40 hours a week	Hours worked by Maintenance contractors on High Speed 1.
Maintenance	48 hours a week	Hours worked by Maintenance contractors based upon the hours submitted by the contractors.
Infrastructure and Investment	40 hours a week	Hours worked by Infrastructure Investment contractors based upon the hours submitted by the contractors.
NDS	40 hours a week	Hours worked by NDS contractors based on the hours submitted by the contractors.*

- Contractor Hours.

- (a) All infrastructure contractors' hours worked at all locations by permanent, temporary and sub-contract staff on activities directly delivering or in support of, a contract with Network Rail, including off-site hours and paid travelling time.
- (b) Headquarters staff not associated with a specific contract(s) are excluded.

Where Alliances are formed to deliver projects combining the resources of contractors' staff and those of Network Rail, those hours worked as defined in 1.3a) above should be apportioned to the contractors AFR targets and network Rail AFR targets accordingly based upon the allocation of resources by the parties to the alliances.

- **On site hours** (will include Site and Site Office hours)
- **Office hours** (will include Programme/Project or Home base hours)
- **Paid Travelling time.** (Will include all paid travelling time hours)

¹ Each function's standardised rate is based upon historical data and the balance between office based support staff and those more exposed to risk within the function

ACCIDENTS

Definitions and guidance for fatalities and Injuries are found in:

- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations, 1995 (RIDDOR).
- RIDDOR 1995 – Supplementary Guidance on Statutory Reporting (GE/GN8522)

Fatality.

“The death of any person, whether or not they are at work, must be reported if it results from an accident arising out of or in connection with work” (RIDDOR 1995).

Reporting the death of an employee is covered in RIDDOR 1995 Regulation 3, Guidance 3, Section 43 and Regulation 4, Guidance 4, Sections 66 to 68 and is summarised below.

Any fatal injury or condition suffered by an employee that was the result of an accident at work or in connection with work, at the time of the incident or within a year of the date of the accident must be reported. The fatality must still be reported if the individual dies within the year whether or not the original injury was reported.

Death from natural causes is non reportable unless there is good reason to believe that the death was the result of work or in connection with work.

Injuries

There are three categories of injury: RIDDOR Major, RIDDOR Lost Time and RIDDOR Non Reportable Minor, each are defined as follows.

RIDDOR Major Injuries

Major Injuries are defined in Schedule 1, Regulation 2(1) in RIDDOR 1995 and supported by Part B Section 4.3 to 4.5 in GE/GN8522. The supplementary guidance document goes further in its explanation of key terms in the regulations.

The Major Injuries defined in RIDDOR 1995 are as follows:

1. Any fracture, other than to the fingers, thumbs or toes.
2. Any amputation.
3. Dislocation of the shoulder, hip, knee or spine.
4. Loss of sight (whether temporary or permanent).
5. A chemical or hot metal burn to the eye or any penetrating injury to the eye.
6. Any injury resulting from an electrical shock or electrical burn (including any electrical burn caused by arcing or arcing products)

leading to unconsciousness or requiring resuscitation or admittance to hospital for more than 24 hours.

7. Any other injury –
 - a. Leading to hypothermia, heat induced illness or to unconsciousness,
 - b. Requiring resuscitation, or
 - c. Requiring admittance to hospital for more than 24 hours.
8. Loss of consciousness caused by asphyxia or by exposure to a harmful substance or biological agent.
9. Either of the following conditions which result from the absorption of any substance by inhalation, ingestion or through the skin –
 - a. Acute illness requiring medical illness; or
 - b. Loss of consciousness
10. Acute illness which requires medical treatment where there is reason to believe that this resulted from exposure to a biological agent or its toxins or infected material.

In addition to these categories, to be reportable the individual's injury must have resulted from an accident at work or in connection with work.

Any greater detail can be found in the RIDDOR 1995 book and the Supplementary Guidance document.

RIDDOR Lost Time Accident

A Lost Time Injury is defined in Regulation 3, Guidance 3, and Section 57 to 61 of RIDDOR 1995 under the name of "Over-3-day Injuries". The definition is summarised from this document below:

A Lost time injury is one that results from an accident at work or in connection with work and is not as classified as a major "but results in the injured person being away from work or unable to do the full range of their normal duties for more than" 3 consecutive days not including the day of the accident.

Minor Accidents (Not RIDDOR)

Minor injuries are all injuries that result from an accident at work or in connection with work that are not classified as either a RIDDOR Major or a RIDDOR Lost Time.

Irregular Working

Definitions for Irregular Working found in the Network Rail Standard [NR/L3/INV/0110](#) – Irregular Working Reporting & Risk Ranking.

Irregular working occurs when a rule, process or procedure is not followed or not correctly followed.

Examples of such rules, processes and procedures are;

- Signalling instructions or block regulations
- Instructions relating to work undertaken on or near the line
- Instructions relating to possessions or protection of the line
- Instructions relating to train operation and marshalling
- Electric track current isolation instructions

Irregular working incidents are to be risk ranked according to their potential to cause injury to humans in accordance with the Irregular Working Risk Ranking Methodology as summarised in the table below from [NR/L3/INV/0110](#), only the events that are ranked as Medium (16+) and High (20+) are counted towards the Key Performance Indicator.

Irregular Working Risk Ranking				
Estimate of how close the incident was to Happening	Worst Foreseeable Outcome			
	No foreseeable safety loss (0)	Injury (L)	Single fatality (M)	Multiple fatality (H)
High chance of accident happening (D)		Low Risk	16+	20+
Medium chance of accident happening (H)		Low Risk	Low Risk	16+
Low chance of accident happening (J)		Low Risk	Low Risk	Low Risk
No foreseeable safety loss (K)	Nil			

This measure consists of the number of such events per period.

RIDDOR Reportable Dangerous Occurrences (not incl. in AFR)

Definitions of reportable Dangerous Occurrences can be found in Schedule 2, Regulation 2(1) of RIDDOR 1995.

In the case of a Dangerous Occurrence, if an injury occurs and is reportable through one of the other categories in Regulation 3 in RIDDOR (1995) then the occurrence should not be reported separately, however if the injury is not reportable under Regulation 3 then the Dangerous Occurrence must be reported.

There are several parts to the schedule concerning Dangerous Occurrences. Part IV Provides more detail on Dangerous Occurrences that relate specifically to the railway industry.

RIDDOR Reportable Diseases (not incl. in AFR)

Definitions of reportable Diseases can be found in Schedule 3 Regulation 5 and guidance on reporting can be found in Regulation 5, Guidance 5 of RIDDOR 1995.

LAGGING INDICATORS

Workforce safety

Workforce Safety is calculated every period via the Fatality Weighted Injuries Rate and the Accident Frequency Rate via the following methods.

AFR/ PERIOD AFR

The number of personal accidents to members of the workforce and contractors reported in SMIS. Comprising of those defined as reportable under RIDDOR 95, normalised per 100 000 hours worked. This is commonly defined as "Accident frequency Rate" (AFR).

The AFR will be calculated in the following manner.

$$AFR = ((F +M+L)/ H)*100000$$

Where

F = Number of fatalities.

M = Number of major RIDDOR reportable injuries.

L = Number of Lost time RIDDOR reportable injuries.

H = Hours Worked

- ROLLING 13 Period AFR

The 13 Period Moving Annual Average AFR will be calculated in the following manner.

$$AFR = ((YF+YM+YL)/ YH)*100000$$

Where

F = Number of fatalities.

M = Number of major RIDDOR reportable injuries.

L = Number of Lost time RIDDOR reportable injuries.

H = Hours Worked

Y = 13 Period Summation of Injuries and fatalities

FWIR/ PERIOD FWIR

The weighted number of personal injuries to members of the workforce reported in SMIS. Comprising of those defined as reportable under RIDDOR 95, as well as those which are not reportable, normalised per 1 000 000 hours worked.

This is commonly defined as "Fatality and Weighted Injuries Rate" (FWIR).

The FWI will be calculated in the following manner.

$$FWI = F + (M/10) + (L/200) + (N/1000)$$

Where

F = Number of fatalities.

M = Number of major RIDDOR reportable injuries.

L = Number of Lost time RIDDOR reportable injuries.

N = Number of minor non- RIDDOR reportable injuries.

- **ROLLING 13 Period FWIR**

The 13 Period Moving Annual Average FWI will be calculated in the following manner.

$$FWI = YF + (YM/10) + (YL/200) + (YN/1000)$$

Where

F = Number of fatalities.

M = Number of major RIDDOR reportable injuries.

L = Number of Lost time RIDDOR reportable injuries.

N = Number of minor non- RIDDOR reportable injuries.

Y = 13 Period Summation of Injuries and fatalities

Near Misses/Close Call

Near Miss

An unplanned, uncontrolled event, **associated with the interaction with trains**. That under different circumstances may have resulted in an accident.

Close call

An event **that is NOT associated with the interaction with trains**. That in different circumstances could have resulted in injury, damage or harm to the environment.

Leading KPIs		Programme					
		Actual	Planned	Closed vs Comp date	Due to be Closed	Closed	Percentage Closed
Period X							
Leading KPIs for Period	Number of planned Safety Tour						NB: To include Directors and Senior Managers, in accordance with NR/SP/OHS/040
	Number of planned Safety Tour actions closed within the original completion date					100	
	Number of Planned General Inspection						
	Number of Planned General Inspection actions closed within their original completion date					100	

Safety Tours

The KPIs will now be displayed in the form of fractions; as percentages disguise the true state of affairs. For example 100% could be 1 in 1 Or 20 in 20, but using a fraction like 2/4 it shows that half of the planned tours or inspections had taken place and four were originally planned.

Number of Safety Tours Completed in the period compared with the number of Safety Tours Planned for the period, displayed as a fraction as below:

$$\frac{\text{Number of Safety Tours Completed per Period}}{\text{Number of Safety Tours Planned per Period}}$$

Planned General Inspections

Number of Planned General Inspections Completed in the period compared with the number Planned General Inspections planned for the period.

$$\frac{\text{Number of Planned General Inspection Completed during the period}}{\text{Number of Planned General Inspection Planned during the period}}$$

Safety Tour Actions

Percentage of actions resulting from Safety Tours, which have been closed within the original completion date.

This is to include all Director and Senior Managers Safety Tours.

The inputs required are:

- Number closed during the period = closed (table above)
- (Number closed + Number overdue at the end of the period) = Due to be closed (table above)

The calculation is as follow:

$$\left(\frac{\text{Number closed during the period}}{\text{(Number closed + Number overdue at the end of the period)}} \right) \times 100$$

Planned General Inspections Actions

Percentage of actions resulting from Planned General Inspections which have been closed within the original completion date.

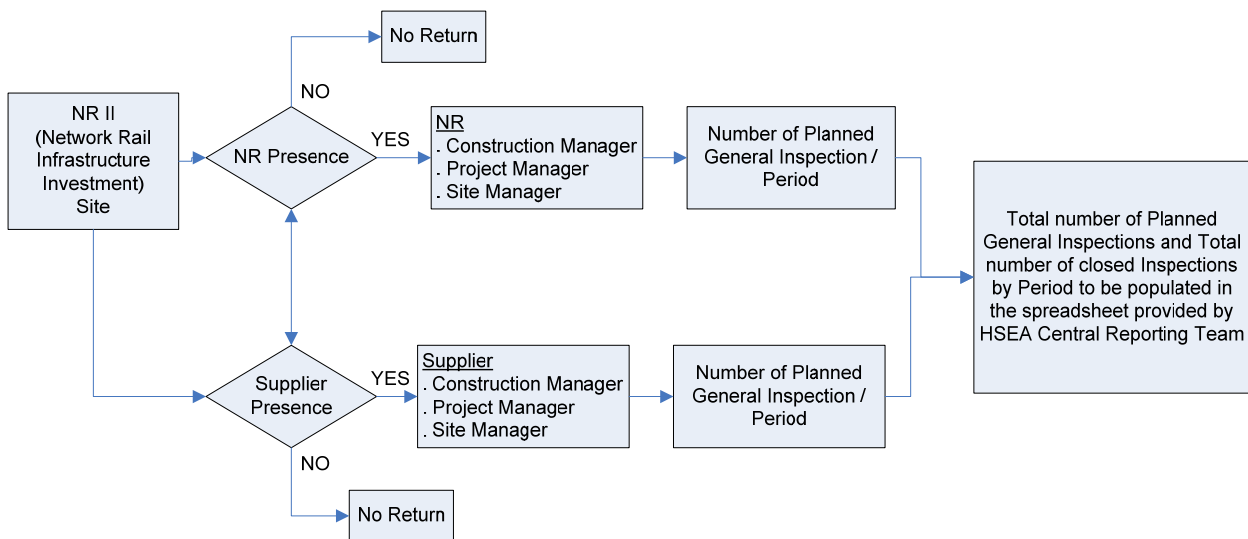
This is to include all Project Line Managers Inspections

The inputs required are:

- Number closed during the period = closed (table above)
- (Number closed + Number overdue at the end of the period) = Due to be Closed (table above).

The calculation is as follow:

$$\left(\frac{\text{Number closed during the period}}{\text{(Number closed + Number overdue at the end of the period)}} \right) \times 100$$



! For both of the above indicators, the percentage closed in period can not exceed 100% this means any un-completed actions should be rolled over to the next period. !

Environment

Please refer to Standard [NR/L3/INI/CP0050](#) for more information regarding Environmental Performance Indicators.

For any further queries, please contact:

- Tony Ellis
- Annamarie Compton

Other Definitions

Accident

An unwanted or unintended sudden event or a specific chain of such events which have harmful consequences; for example, accidents include the following: collisions, derailments, vehicles struck at level-crossings, persons struck by trains, fires and others.

Assault

Any event in which a person is:

- a) physically assaulted,
- b) subjected to verbal abuse or has been threatened with violence, whether or not there is physical injury.

All assaults shall be dealt with in the same manner as an accident.

CIRAS

It is the Confidential Reporting System adopted throughout the rail industry. The service takes reports about safety from rail staff and forwards them to rail companies, requesting that they address the issues raised. CIRAS is a confidential process; there is therefore no risk of reprisal from management or work colleagues.

Contractor

A person undertaking work under contract for Network Rail; this includes a person sub-contracted to undertake work for Network Rail. This includes a self-employed person and staff of agencies used by Network Rail or its contractors.

DCP

A designated competent person (DCP) is the person identified by the lead organisation as responsible for supervising/managing the investigation.

Event

Where this term is used, it means occurrences resulting in an accident or incident.

Formal investigation

A formally structured investigation of an accident or incident led by Network Rail or a railway undertaking and undertaken in accordance with the processes mandated by GO/RT3473 and the Reporting and Investigation Manual.

Incident

An unplanned, uncontrolled event that under different circumstances may have resulted in an accident (also referred to as a 'near miss').

Lead investigator

A competent person appointed to lead and manage the investigation.

Lead organisation

Network Rail or the railway undertaking responsible for managing the investigation process in accordance with the criteria detailed in GO/RT3473 and the Reporting and Investigation Manual.

Local investigation

An investigation of an accident or incident, for which a formal investigation is not required, by Network Rail or railway undertaking, and held in accordance with the requirements and criteria contained within the Reporting and Investigation Manual.

Member of the public

This definition applies to persons who are not:

- a) employees of Network Rail and its contractors whilst on duty;
- b) the employees of other Railway Group members and their contractors whilst on duty.

The definition includes:

- a) Railway neighbours, i.e. persons who may be affected by Network Rail activities, including users of level crossing;
- b) Persons on business or with legitimate reasons for being on Network Rail property (e.g. HM Railway Inspectors and others with statutory powers to enter onto Network Rail property);
- c) Trespassers.

National Recommendations Review Panel (NRRP)

A Network Rail panel which reviews reports and recommendations arising from:

- a) Public and HSE Inquiries;
- b) RAIB Investigations;
- c) Formal Investigations;
- d) Local Investigations containing recommendations with national implications.

Personal accident

An uncontrolled, unplanned event that results, or could in similar circumstances result, in an individual being injured or shocked. This includes:

- a) Assaults, whether or not physical harm was caused;
- b) Ill-health that is attributable to a single event whilst an employee is at work and includes inhaling, swallowing or otherwise absorbing any substance, or suffering from lack of oxygen, except where a reportable disease is involved.

Preliminary investigation

An investigation which commences within 24 hours of an event taking place and requires a report to be completed within five working days of the incident occurring.

This investigation may be finalised as a local investigation on authority of the DCP.

RAIB investigation

An investigation conducted by the Rail Accident Investigation Branch (RAIB) in accordance with the Railway (Accident Investigation and Reporting) Regulations (RAIR) 2005.

Recommendation

A proposal made following an inquiry or investigation to:

- a) change an existing control measure, or
 - b) define a new control measure
- to eliminate or mitigate a risk derived from the cause(s) or contributor(s) of an event, as described in the inquiry or investigation report.

Recommendations Review Panel (RRP)

A Network Rail panel formed at a local level which:

- a) reviews reports and recommendations arising from Local Investigations, and
- b) Reviews recommendations referred to it by NRRP or refers to NRRP recommendations with national implications or application

Reporting and Investigation Manual

A Network Rail produced manual comprising the company's processes, and supporting guidance, for accident and incident reporting and investigation.

RIDDOR 1995

The Reporting of Injuries Diseases and Dangerous Occurrences Regulations 1995.

Safety Management Information System (SMIS)

The Safety Management Information System, owned by the Rail Safety and Standards Board (RSSB) and used by Railway Group Members for the retention of data applicable to safety events.

WHISTEBLOWER

Internal Audit manage a whistleblowing hotline in support of the Network Rail Corporate Policies for whistleblowing and fraud management. Although this facility is intended to provide a channel for reporting concerns in respect of fraud or similar malpractice, occasionally Internal Audit receive communications with a "safety" dimension.

Period Dates 2009/2010

	Period Start Date	Period End Date
Quarter 1		
Period 1	1 st April	2 nd May
Period 2	3 rd May	30 th May
Period 3	31 st May	27 th June
Quarter 2		
Period 4	28 th June	25 th July
Period 5	26 th July	22 nd August
Period 6	23 rd August	19 th September
Quarter 3		
Period 7	20 th September	17 th October
Period 8	18 th October	14 th November
Period 9	15 th November	12 th December
Period 10	13 th December	9 th January
Quarter 4		
Period 11	10 th January	6 th February
Period 12	7 th February	6 th March
Period 13	7 th March	31 st March