



Railway Procurement Agency

RPA Construction Activities

Annual Safety Statistical Report 2010

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1.0 Introduction

This report outlines the construction safety performance on RPA projects during 2010. For the purposes of this report performance on individual projects is measured by the Lost Time Accident Frequency Rate (LTAFR) and compared with the latest construction sector average LTAFR.

The Health & Safety Authority (HSA) defines Lost Time Accident (LTA) as one which results in more than 3 days absence from work. A rate of 100,000 man hours is used to normalise performance across individual contracts.

2.0 Overview of Construction Contracts

During 2010, main construction works continued on Luas Citywest (Line A1). Construction works were completed on Luas Cherrywood (Line B1) allowing the line open to passenger services in October and snagging works continued on Luas Docklands (Line C1).

2.1 Luas Citywest - Line A1

The following main construction contracts are awarded for the construction of Luas Citywest.

Contract	Works	Contractor	Start	Finish
A1_401	Connections at Belgard (Traditional Build Only Contract)	BAM	Sep 2009	Dec 2010
A1_402	Main Infrastructure Works. (Design & Build Contract)	BAM	Mar 2009	Dec 2011
A1_450	Systems (Design & Build Contract)	SBS/Efacec	Jan 2010	May 2011

Table 1: Construction contracts awarded for the construction of Luas Citywest.

2.2 Luas Cherrywood - Line B1

The following main construction contracts were awarded for the construction of Luas Cherrywood.

Contract	Works	Contractor	Start	Finish
B1_100	Road realignment & Utility Divs. (Traditional Build Only Contract)	SIAC	Mar 2007	Jun 2009
B1_160	Enabling works & tree felling. (Traditional Build Only Contract.)	CLG Ltd.	Mar 2007	Nov 2007
B1_300	Structures. (Traditional Build Only Contract)	Laing O'Rourke	Mar 2007	Aug 2008
B1_400	Main Infrastructure Works. (Design & Build Contract)	SBS JV	Jun 2007	Aug 2010

Table 2: Construction contracts awarded for the construction of Luas Cherrywood.

2.3 Luas Docklands - Line C1

The following main construction contracts were awarded for the construction of Luas Docklands.

Contract	Works	Contractor	Start	Finish
C1_100	Utility Diversions. (Traditional Build Only Contract)	Siac	Jun 2007	Sep 2008
C1_300	Mayor Street Bridge over Georges Dock (Traditional Build Only Contract)	John Sisk	Jun 2007	Dec 2007
C1_301	Spencer Dock Bridge (Traditional Build Only Contract)	Laing O'Rourke	Jan 2008	Jun 2009
C1_400	Main Infrastructure Works. (Traditional Build Only Contract)	M-Pact, Laing OR - JV	Apr 2008	Feb 2010
C1_450	Systems (Design & Build Contract)	SBS JV	Jun 2009	Dec 2009

Table 3: Construction contracts awarded for the construction of Luas Docklands.

2.4 Metro West

The following contracts were awarded for the Metro West.

Contract	Works	Contractor	Start	Finish
RPA71667	MW ground investigations	HSB	Nov 10	Nov 10
MW_712	Metro West Archaeological testing	Headland	Nov10	Nov 10

Table 4: Construction contracts awarded for Metro West.

2.5 Metro North

The following contracts were awarded for Metro North.

Contract	Works	Contractor	Start	Finish
RPA71667	MN ground investigations	HSB	Nov 10	Nov 10
MW_712	Metro Boreholes	Headland	Nov10	Nov 10

Table 5: Construction contracts awarded for Metro West.

3.0 Accidents and Incidents

The most recent Irish Construction Sector average, normalized by 100,000 man hours, is approximately 0.8.

The method for calculating AFR is: $AFR = \frac{\text{No. of Lost Time Accidents} \times 100,000}{\text{Total Hours Worked}}$

3.1 Line A1 – Luas Citywest (Belgard to Saggart)

Key data relating to all accidents and incidents occurring on Line A1 construction activities during 2010 is as follows:

Incident: An unplanned, unwanted event which does not result in personal injury, equipment or property damage.

Accident: An unplanned, unwanted event, which results in a personal injury.

Employer	Hours worked	Total Incidents*	Fatalities	Dangerous Occurrence	First Aid on site or medical treatment	Lost Time Accidents (LTA)
RPA–site staff	39,828	0	0	0	0	0
BAM Rail Ltd. (A1_402)	47,135	4	0	0	0	1
BAM Rail Ltd. (A1_401)	18,869	2	0	0	0	0
TOTALS	105,832	6	0	0	0	1

Table 6: Totals of all accidents and incidents occurring on Luas Citywest construction activities during 2010.

The Accident Frequency Rate (AFR) for Line A1 is 0.9 and this is slightly higher than the latest construction sector average of 0.8.

3.2 Line B1 – Luas Cherywood (Sandyford to Brides Glen)

Key data relating to all accidents and incidents occurring on Line B1 construction activities during 2010 were as follows:

Employer	Hours worked	Total Incidents	Fatalities	Dangerous Occurrence	First Aid on site or medical treatment	Lost Time Accidents (LTA)
RPA–site staff	21,746	0	0	0	0	0

Employer	Hours worked	Total Incidents	Fatalities	Dangerous Occurrence	First Aid on site or medical treatment	Lost Time Accidents (LTA)
SBS (B1_400)	652,552	**	0	**	**	2
TOTALS	674,298	**	0	**	**	2

Table 7: Totals of all accidents and incidents occurring on Luas Cherrywood construction activities during 2010.

** Figures not available from SBS.

The Accident Frequency Rate (AFR) for Line B1 is 0.3 and compares favourably with the latest construction sector average of 0.8.

3.3 Line C1 – Luas Docklands (Connolly to The Point)

Key data relating to all accidents and incidents occurring on Line C1 during 2010 is as follows:

Employer	Hours worked	Total Incidents	Fatalities	Dangerous Occurrence	First Aid on site or medical treatment	Lost Time Accidents (LTA)
RPA-site staff	2,771	0	0	0	0	0
M-Pact	26,200	1	0	0	0	0
KN Networks	810	0	0	0	0	0
TOTALS	29,281	1	0	0	0	0

Table 8: Totals of all accidents and incidents occurring on Luas Docklands construction activities during 2010.

The Accident Frequency Rate (AFR) for Line C1 is 0 and compares favourably with the latest construction sector average of 0.8.

3.4 Metro West

Key data relating to all accidents and incidents occurring on Metro West during 2010 were as follows:

Employer	Hours worked	Total Incidents	Fatalities	Dangerous Occurrence	First Aid on site or medical treatment	Lost Time Accidents (LTA)
RPA-site staff	80	0	0	0	0	0
Headland	1,28	1	0	0	0	0

Employer	Hours worked	Total Incidents	Fatalities	Dangerous Occurrence	First Aid on site or medical treatment	Lost Time Accidents (LTA)
HSB	1,900	1	0	0	0	0
TOTALS	2,100	2	0	0	0	0

Table 9: Totals of all accidents and incidents occurring on Metro West investigative activities during 2010

The Accident Frequency Rate (AFR) for Metro West is 0 and compares favourably with the latest construction sector average of 0.8.

3.5 Metro North

Key data relating to all accidents and incidents occurring on Metro North during 2010 is as follows:

Employer	Hours worked	Total Incidents	Fatalities	Dangerous Occurrence	First Aid on site or medical treatment	Lost Time Accidents (LTA)
RPA-site staff	3,035	1	0	0	0	0
Slit-trench /Boreholes	4,980	1	0	0	0	0
TOTALS	8,010	2	0	0	0	0

Table 10: Totals of all accidents and incidents occurring on Metro North investigative activities during 2010.

The Accident Frequency Rate (AFR) for Metro North is 0 and compares favourably with the latest construction sector average of 0.8.

3.6 Overall AFR for 2010

The overall AFR for all RPA activities undertaken in 2010 was 0.4 . This compares favourably with the latest construction sector average of 0.8.

3.7 Known Details of Significant Accidents

The following table summarises known details of significant accidents (i.e. accident resulting in lost time) occurring in 2010.

Line	Contract	Date	Details
A1	BAM A1_402	19/03/10	Fortunestown Stop. Operative fractured left ankle while erecting marquee over track bed prior to concreting works.

Table 11: Known details of significant accidents

5.0 Safety Audits and Inspections

With the exception of the B1_400 and A1_402 contracts the role of Project Supervisor Construction Stage (PSCS) has been fulfilled by RPA with nominated representatives reporting on each project. On B1_400 (Design/Build contract) the PSCS role was undertaken by the Safety Manager of Bowen Construction on behalf of the Joint Venture Company.

Likewise, for the A1_402 as a Design/Build contract the PSCS role was undertaken by BAM Rail Ltd. nominated by Citywest Luas Limited (CLL) as client. While RPA had no legal responsibility for safety issues on this contract, weekly joint safety inspections were carried out between RPA and the PSCS representative on site.

As PSCS, RPA carried out ongoing monitoring of its contractors to ensure that the duties under the Safety Health and Welfare at Work (Construction) Regulations 2006, the Safety, Health and Welfare at Work Act 2005 and associated legislation were being effectively applied. Where deficiencies were noted, RPA as the PSCS worked closely with the contractor to ensure corrective actions were agreed and implemented within a defined timeframe as appropriate.

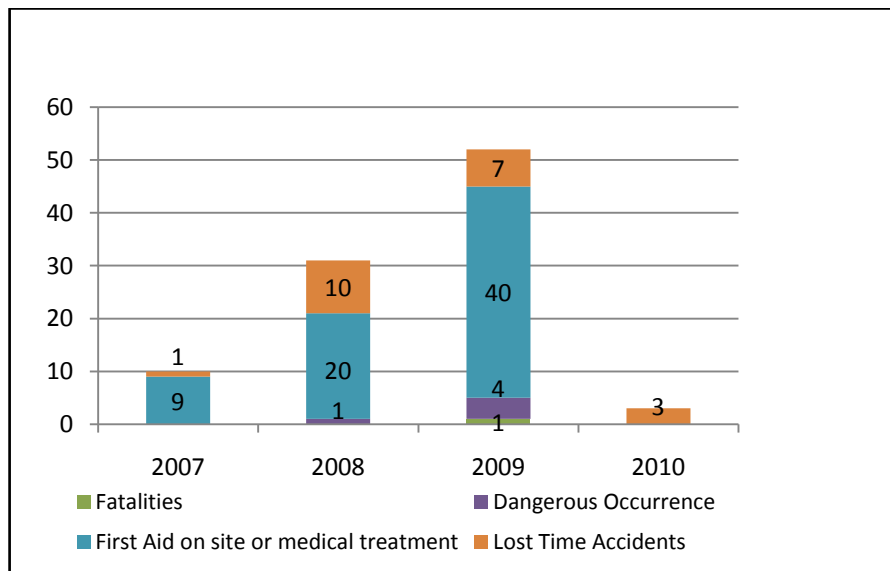
RPA's Safety Department also arranged the provision of training for RPA staff on a regular basis to further help develop their on-site safety knowledge.

6.0 Analysis

The following table and graph provides an overview of the year-on-year performance presented by accident category.

Year	Hours worked	Total Incidents	Fatalities	Dangerous Occurrence	First Aid on site or medical treatment	Lost Time Accidents (LTA)
2007	360,213	19	0	0	9	1
2008	1,233,111	29	0	1	20	10
2009	1,096,282	47	1	4	40	7
2010	819,521	13	0	0	0	3

Table 12: Overview of the year-on-year performance presented by accident category

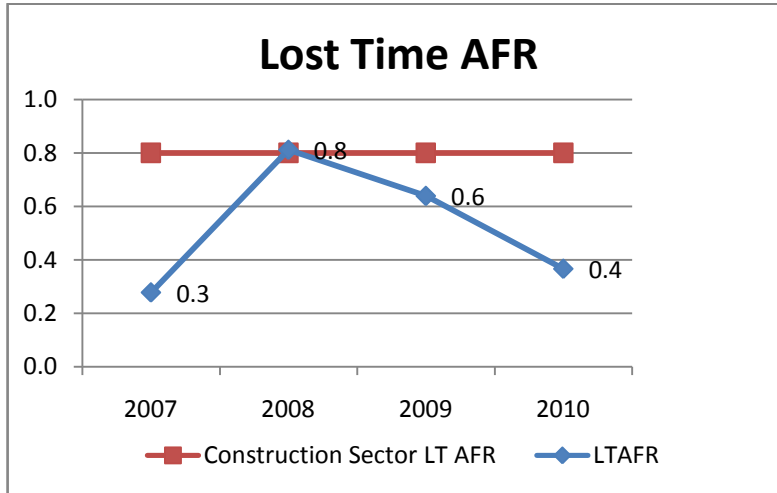


Graph 1: Overview of Accident Statistics - Year on Year Performance

The overall Accident Frequency Rate (AFR) of all accidents and incidents on RPA construction sites for 2010 was 0.4, demonstrating a downward trend on previous years. This AFR compares favourably with the latest construction sector average of 0.8.

Year	Lost Time AFR	Construction Sector LT AFR (most recent)
2007	0.3	0.8
2008	0.8	0.8
2009	0.6	0.8
2010	0.4	0.8

Table 13: Overview of the year-on-year Lost time accident frequency rate (LT AFR) normalised by 100,000 man hours worked.



Graph 2: Overview of LT AFR - Year on Year Performance

The RPA is very conscious of the importance of safe working and continues to give high priority to ensuring its construction sites are safe workplaces for its own and its contractors' staff. We will continue, as Client, to partner closely with all of our contractors to ensure continuous improvement towards an ultimate goal of zero lost time accidents i.e. an AFR of 0.

March 2011