

# INTEGRATION ENGINEERING SAFETY MANAGEMENT

## Crossrail Hazard Review Panel Terms of Reference

Document Number: CRL1-XRL-O8-GPS-CR001-50009

### Current Document History:

Revision:	Effective Date:	Author(s) (‘Owner’ in eB *)	Reviewed by: (‘Checked by’ in eB *)	Approved by:	Reason for Issue:
2.0	18/05/2016	Stephen James	Chi Wong	Jeremy Bates	2 Year Review

**Previous Document History:**

<b>Revision</b>	<b>Prepared Date:</b>	<b>Author:</b>	<b>Reviewed by:</b>	<b>Approved by:</b>	<b>Reason for Issue</b>
0.1	17/08/11	M Kilby	C Bloxsome	M Kilby	Internal Review
1.0	08/09/11	M Kilby	C Bloxsome	M Kilby	Issued for Implementation

**Revision Changes:**

<b>Revision</b>	<b>Status / Description of Changes</b>
2.0	2 Year Review; Reference documents updated

## **Contents**

<b>1 Introduction .....</b>	<b>4</b>
<b>2 Purpose of HRP .....</b>	<b>4</b>
<b>3 Format of the HRP .....</b>	<b>4</b>
<b>4 HRP Frequency: .....</b>	<b>5</b>
<b>5 HRP Outputs:.....</b>	<b>5</b>

## 1 Introduction

CRL has implemented a Project Wide Hazard Record which is mandated across all Crossrail design and / or build delivery contracts. It is a common platform for the logging of the ESM hazards associated with the design and build phases. Where a hazard can not be mitigated through design and require mitigation measurements by the future Infrastructure Manager (IM) and / or Railway Undertaking (RU) then these must be submitted to the Hazard Review Panel(HRP) for review and acceptance that the mitigation responsibility can be transferred to the future IM and / or RU, through their acceptance of same. Additionally where a designer has implemented all applicable mitigation measures and the hazard remains intolerable then this hazard must be submitted to the HRP for review and appropriate action.

## 2 Purpose of HRP

The Hazard Review Panel (HRP) has the responsibility of reviewing and determining the appropriate action as follows:

- Request the acceptance of the Hazards that can not be mitigated by design and require the future infrastructure manager and / or train operator to manage via operational rules and regulations and/or maintenance processes;
- Request the acceptance of the Risk Control Actions (RCAs) necessary to be undertaken by the future infrastructure managers in addition to the mitigation measures provided by design to keep the risk ALARP and tolerable;
- Raise any concerns related to the RCAs and make note of any infrastructure manager or duty holders specific issues that may require further discussion at a later date.
- Agree necessary actions to address hazards that remain intolerable after the proposed hazard mitigations have been implemented. Where there are changes potentiall required, these are to be elevated via the Change Process.

## 3 Format of the HRP

The HRP is a CRL constituted meeting. CRL will provide both the chair and secretary to the meeting. The minutes of meeting will be created by CRL and managed through the CRL document control process.

The HRP panel will typically consist of the following members [according to content under review] with the chairperson responsible for ensuring that all logged actions are implemented. The Chairman will decide whether the Panel is quorate or not depending upon the issues to be reviewed:

<b>Panel Members</b> (CRL unless otherwise identified)	<b>Job Title</b>
HRP Chairman	Head of System Safety or nominated representative (CRL System Safety Manager)
HRP Secretary	Representative from the CRL Safety Assurance Department
Civil Infrastructure and Station M&E	Chief Engineer or nominated representative
Rail Systems and Tunnel M&E	System Wide Director or nominated representative

<b>Panel Members</b> (CRL unless otherwise identified)	<b>Job Title</b>
Stations	Head of Stations or nominated representative
RfL Representatives of Operations and Systems Engineering	Head of Operations and Systems Engineering or nominated representatives.
MTRC Representative (concessionaire)	As appropriate
LUL Representative	As appropriate
NRIL Representative	As appropriate

MTR, LUL and NRIL representation will be appropriate to the issues for discussion at the Panel.

A representative of the AsBo may also attend as appropriate for the purpose of discharging their responsibilities under the CSM Regulation.

#### **4 HRP Frequency:**

HRP's will be convened on an as and when basis with the Contractors responsible for Identifying Hazards that:

- cannot be mitigated by design and require the future infrastructure manager and / or railway undertaking (train operator) to manage via operational rules and regulations and / or maintenance; and
- Hazards that remain intolerable after the hazard mitigations have been implemented.

#### **5 HRP Outputs:**

The HRP will produce minutes of meetings with an action tracker for the logging and closure of actions. Additionally the HRP will be responsible for populating the Safety Issues File (SIF) which captures all Hazards that a future Infrastructure Manager (IM) or Railway Undertaking (RU) will have the responsibility to manage via their SMS. The purpose of the SIF is to provide progressive awareness to the future IMs' and RU of the Hazards that they will be responsible to manage in the future.

Where a hazard remains intolerable after the hazard mitigations have been implemented, the HRP has the responsibility to agree the necessary actions to resolve this.

The minutes of meeting will contain as a minimum, the following:

- Record of the discussion at the meeting;
- Summary of each Risk Control Action (RCA) discussed, with agreed status of each action;
- SIF extract (from PWHR)
- Date of next meeting (where appropriate)
- (Appendix) Signed attendance list.

## 6 Reference Documents

Ref:	Document Title	Document Number:
1.	Crossrail Engineering Safety Hazard Management Procedure	CRL1-XRL-O8-GPD-CR001-50002
2.		
3.		
4.		

## 7 Standard Forms / Templates

Ref:	Document Title	Document Number:
A.	None	
B.		