INTEGRATION
ENGINEERING SAFETY MANAGEMENT

Guidelines and Etiquette for Undertaking HAZID and HAZOP Workshops

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Contents

1   Purpose

This document is to be used by the Crossrail Project including Framework Design Consultants and Design and Build Contractors as basic guidelines for preparing and undertaking formal hazard identification and design review workshops (such as HAZID and HAZOP workshops).

2   Scope

The scope of this assessment covers preparing and undertaking formal workshops including:

- HAZID Workshops
- HAZOP Workshops
- SIRP Workshops

This document does not cover how the workshop methodology should be structured, purely the minimum workshop requirements.

3   Definitions

CRL	Crossrail Limited
DLRL	Docklands Light Railway Limited
HAZID	Hazard Identification Study
HAZOP	Hazard and Operability Study
LUL	London Underground Ltd
MTRC	MTR Crossrail Ltd
NRIL	Network Rail Infrastructure Ltd
RfL	Rail for London
RfLI	Rail For London Infrastructure
SIRP	System Integration Review Panel

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4   Workshop Preparations

Prior to the workshop it is vital that the facilitator confers with the relevant engineers and operators to understand the issues and scope to be covered during the workshop. The facilitator should prepare an appropriate structure for the workshop. It may be useful for one or more of the engineers to give an overview of the issue under consideration. This should be agreed with the appropriate engineers prior to the workshop meeting so they have sufficient time to make their preparations.

The facilitator should confirm with the workshop secretary how the workshop will be recorded.

Consideration should be given to who should attend the workshop in order that there is both appropriate representation and a manageable number of attendees. Representation should as a minimum include the appropriate CRL contractors, together with stakeholders (e.g. NRIL, DLRL, LUL, RfL etc). Ideally the number of workshop attendees should be limited to 12 individuals, not including the facilitator and workshop secretary. Although it is often difficult (and sometimes not appropriate) to keep the number of participants to these levels, attendees should be encouraged not to bring other colleagues (those attending being able to fully participate in the topic areas under consideration – see section 6 regarding requirements for the workshop to be quorate).

5   Stakeholder Involvement

It is the responsibility of the workshop facilitator to organise and send out formal calendar invites to secure the availability of appropriate stakeholders attendees (e.g. NRIL, DLRL, LUL, RfL etc).

6   Workshop Briefing Notes

A briefing note must be issued to all attendees at least 3 working days before the workshop. The contents should include:

- **Introduction:** The briefing note should clearly state the purpose and objectives of the meeting. It should confirm the date of the workshop and venue.

- **Scope:** It should detail the scope and boundaries. It may be necessary to explicitly state exclusions from the workshop and/or interfaces that will be included. The scope should consider all aspects of railway operations (day to day running including degraded, abnormal, emergency and maintenance activities) as well as technical matters as required by the CRL System Safety Plan [1].

- **Methodology:** Describe how the workshop will be structured, and how it will be recorded. It is often helpful to have an example record sheet appended to the briefing note.

- **Assumptions:** Any assumptions that are to be used during the meeting should be listed.

- **Attendees:** A list of expected attendees and their discipline / "raison d'être" should be listed. Critical attendance (i.e. those disciplines that make the forum quorate) should be flagged.

Any additional information that will be informative to the attendees should also be issued with the briefing note.

Should the workshop cover the risk ranking of hazards a copy of the risk ranking matrix and the definitions should be included in the briefing note. The risk matrix defined in the CRL Hazard Management Procedure [2] should be used.

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7   Workshop

At the commencement of the workshop, the facilitator should introduce the workshop and restate the objectives and scope of the meeting.

Once introductions have been performed, the facilitator should review the present competencies. Where it has not been possible for an individual to attend the meeting or send a representative, the chair will review the competencies recorded and consider whether the workshop has the appropriate representation such that the workshop can proceed.

The attendees should sign an attendance record, which should be included in the formal report.

An introduction of the issues to be covered may be given by an engineer(s). Next the facilitator should then confirm the assumptions to be used and check if there are any points of clarification required prior to the main workshop.

A record of the workshop should be taken by the workshop secretary. It is generally not appropriate for the facilitator to act as both the roles of facilitator and secretary at formal workshops. However, for smaller workshops e.g. those involving less than 5 participants, this may be possible.

8   Report

A record of the workshop findings should be issued to attendees for comment within 5 working days of the workshop. This should include any assumptions or points of clarification raised during the workshop.

The structure and details within the briefing note should form the template for the report, expanded to include the record of attendance, results, conclusions and workshop record sheets.

9   Reference Documents

Ref:	Document Title	Document Number:
1.	Engineering Safety Management System Safety Plan	CRL1-XRL-O7-GST-CR001-00001
2.	Crossrail Engineering Safety Hazard Management Procedure	CRL1-XRL-O8-GPD-CR001-50002
3.		
4.		

10   Standard Forms / Templates

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

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