



INTEGRATION ENGINEERING SAFETY MANAGEMENT

Competency Assessment - Guidelines

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Revision Changes:

Revision	Status / Description of Changes
1.0	Creation of specific competencies for individuals involved in the acceptance of DESJ's & ESJ's from Contractors and in the creation of OSJ's and the ISJ for the CRL Railway.

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1 Purpose & Scope

The purpose of this document is to define the process for competency assessment of individuals involved in the acceptance of Design Engineering Safety Justifications (DESJ's) and Engineering Safety Justifications (ESJ's) from Contractors and the creation of Overall Safety Justifications (OSJ's) and the Integrated Safety Justification for the Crossrail railway consistent with the defined CRL Engineering Safety Management requirements ("Engineering Safety Management" competency). This is in line with the requirements specified within the document "Engineering Safety Management – System Safety Plan" (CRL1-XRL-O7-GST-CR001-00001)[1]

The competence assessment process shall be applied to appropriate CRL post holders under the Head of System Safety Management and Interoperability, particularly the System Safety Manager and posts beneath, but also to others within the Safety Management and Interoperability organisation, as identified.

2 Responsibilities

The key responsibilities identified below have been established, based upon the following hierarchical principles:

The CRL Head of Integration is responsible for approval of this procedure.

The CRL Head of System Safety Management and Interoperability is the Professional Head of System Safety, and therefore, by virtue of position and experience is judged competent to assess those within the System Safety Management team. Assessment of competencies of others within the System Safety Management team is delegated to the CRL System Safety Manager.

The CRL System Safety Manager will be assessed by the CRL Head of System Safety Management and Interoperability and is responsible for the assessment of all others in the System Safety Management team, as delegated above.

Based upon the above principles, the key responsibilities related to this procedure and the associated process are as follows, and are referenced in Appendix A:

CRL Head of Integration (HOI)

- Approve this Competency Assessment Process

CRL Head of System Safety Management and Interoperability (HoSSMI)

- Confirm the post holders requiring assessment
- Define post holder assessment requirements
- Complete competency assessments for the CRL System Safety Manager in accordance with this procedure, identifying training needs as appropriate
- Make sure that completed assessments on the CRL System Safety Manager are completed and are input, together with the post holder's current CV into the CRL records (eB)
- Verify competency assessments carried out by the CRL System Safety Manager

CRL System Safety Manager (SSM)

- Complete competency assessments in accordance with this procedure, identifying training needs as appropriate

- Make sure that completed assessments are completed and are input, together with the post holder’s current CV into the CRL records (eB)
- Advise CRL Head of System Safety Management and Interoperability of any training needs or concerns as a result of the assessment process

CRL Document Controller (DC)

- Maintain completed competency assessment records in eB

3 Records

Completed assessment records together with associated CV’s shall be retained in the CRL Document Management System (eB) in line with the provisions of the CRL Data Protection Policy (CR-XRL-Z2-UPP-CR001-00014) [2].

4 Periodicity of Assessment

Following the initial assessment (including any reassessment following additional training), competencies shall be reassessed on an annual basis, using this process.

5 Reference Documents

Ref:	Document Title	Document Number:
1.	Engineering Safety Management System Safety Plan	CRL1-XRL-O7-GST-CR001-00001
2.	CRL Data Protection Policy	CR-XRL-Z2-UPP-CR001-00014

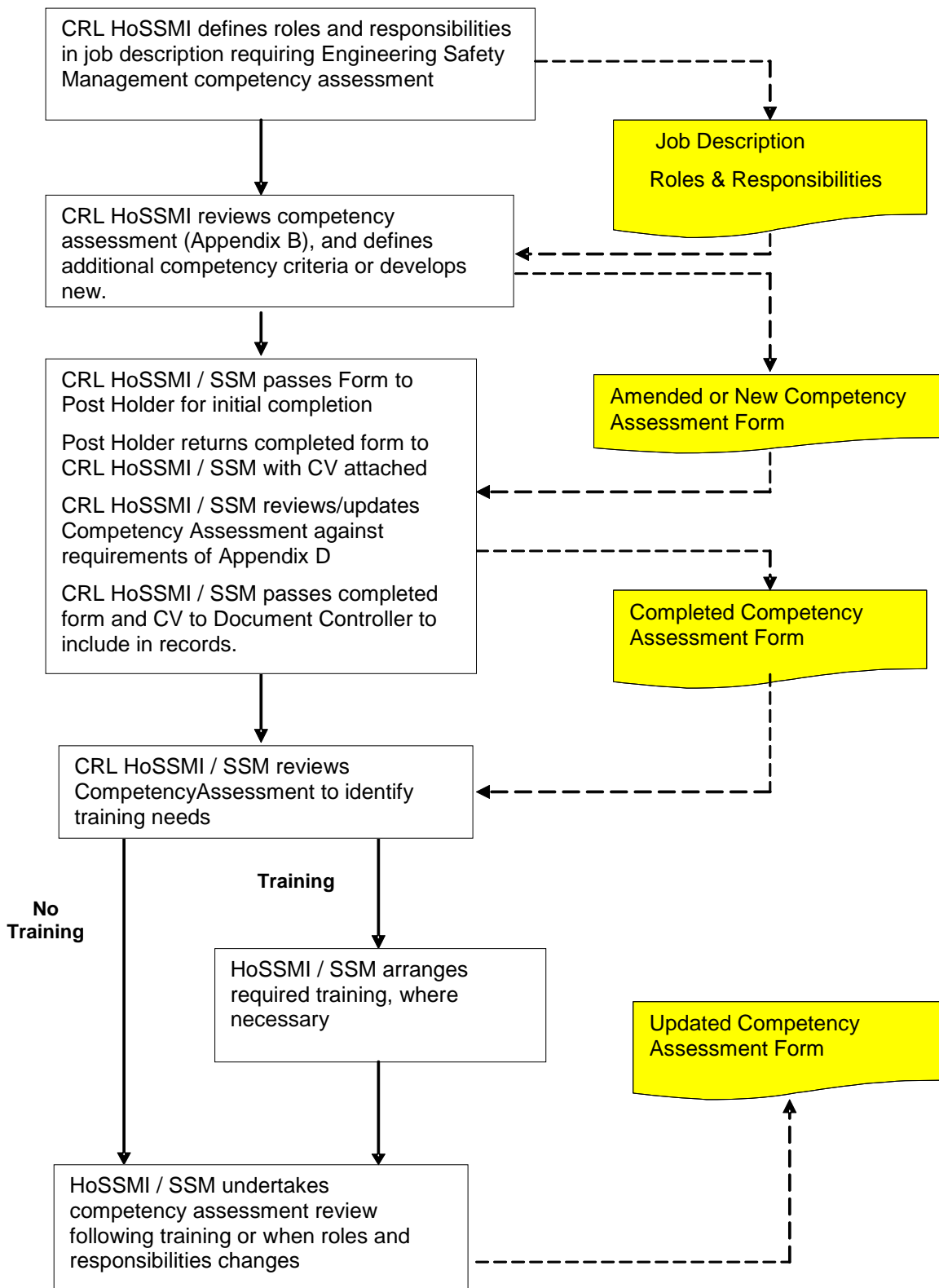
6 Standard Forms / Templates

Ref:	Document Title	Document Number:
A.	Competency Assessment Form	(Part of this document)

APPENDIX A - “Engineering Safety Management”

COMPETENCY ASSESSMENT PROCESS

PROCESS FLOW



APPENDIX B - “Engineering Safety Management”

COMPETENCY REQUIREMENTS

The candidate must be able to clearly demonstrate competency in the following areas as a minimum. They must be able to:

Generic Skill base

- Demonstrate engineering safety management experience, preferably within a railway engineering / construction environment
- Demonstrate knowledge and experience of safety critical design management and review processes and ability to review safety cases for compliance with standards, constructability, operability and maintainability.
- Demonstrate ability to produce detailed technical reports
- Demonstrate detailed knowledge and understanding of the application of European / national and international standards and railway engineering standards as applicable to Crossrail and / or other UK railway systems.
- Demonstrate detailed knowledge of Health & Safety Regulation, ROGs, Interoperability and ESM principles and of their application within the UK rail industry.
- Understand the application of a safety argument to provide a demonstration of safety
- Be able to work in timely situations for which formal guidance is unavailable and where creative thinking / innovative application is needed.
- Be able to apply knowledge to analyse novel and complex situations so as to be able to validate the safety argument.
- Communicate effectively – provision of advice to colleagues and managers in a meaningful and useable manner.
- Review contractor / peers produced documentation and provide appropriate focussed feedback.

Background Skill determination

Required:

- 10 Years or more relevant experience in Engineering Safety Management and RAM activities, ideally in a railway environment.

Optional:

- Hold a relevant engineering degree or equivalent
- Member of a relevant safety / engineering or allied institution, preferably at Chartered level.

Specific competency (knowledge) requirements (“Evidence”)

(The following list to be used as a basis for discussion / questioning to confirm continued abilities to carry out the tasks – the working level and existing abilities / qualifications should determine the depth and breadth of the questioning. This can be based around the tasks being presently undertaken by the individual)

1	Demonstrate engineering safety management experience, preferably within a railway engineering / construction environment
2	Demonstrate knowledge and experience of safety critical design management and review processes and ability to review safety cases for compliance with standards, constructability, operability and maintainability.
3	Demonstrate ability to produce detailed technical reports
4	Demonstrate detailed knowledge and understanding of the application of European / national and international standards and railway engineering standards as applicable to Crossrail and / or other UK railway systems.
5	Demonstrate detailed knowledge of Health & Safety Regulation, ROGs, Interoperability and ESM principles and of their application within the UK rail industry.
6	Understand the application of a safety argument to provide a demonstration of safety
7	Be able to work in timely situations for which formal guidance is unavailable and where creative thinking / innovative application is needed.
8	Be able to apply knowledge to analyse novel and complex situations so as to be able to validate the safety argument.
9	Communicate effectively – provision of advice to colleagues and managers in a meaningful and useable manner.
10	Review contractor / peers produced documentation and provide appropriate focussed feedback.

FORM A - “Engineering Safety Management”
COMPETENCY ASSESSMENT FORM

COMPETENCY ASSESSMENT FORM		
Candidate Name		
Date of Assessment		
Competency:	“Engineering Safety Management”	
Background Skill Confirmation	Evidence / Confirmation	
Required : 10 Years or more relevant experience in Engineering Safety Management and RAM activities, ideally in a railway environment.		
Optional: Hold a relevant engineering degree or equivalent		
Optional: Member of a relevant safety / engineering or allied institution, preferably at Chartered level.		
Specific Competency Requirements (Number - See Appendix B)		
No:	Summary of Discussion	Comments / Actions

No:	Summary of Discussion	Comments / Actions

Statement from Assessor

I consider the candidate to be competent / not yet competent (delete as applicable)

	Assessor	Candidate
Name		
Signature		
Position		
Date		

This assessment is valid for a maximum period of 1 year.

Assessment Verified By:	Date:

Please see next page for list of Issues for further consideration / action prior to next Assessment, together with agreed actions.

Issues for further consideration / action prior to next Assessment

Item	Agreed Action