

Category 1 Standard

S1217 Integration of Human Factors into Systems Development

Issue No.: A2

Issue date: May 2013
Review date: May 2018

MAYOR OF LONDON

Copyright London Underground Library

 **Documents**
Document Sharing Hub



Contents

1	1 Purpose	3
2	2 Scope	3
3	3 Requirements	3
3.1	3.1 End-user Representation	3
3.2	3.2 Operational and Maintenance Concepts	3
3.3	3.3 Customer Concept	4
3.4	3.4 Human Factors Integration Plan (HFIP)	4
3.5	3.5 Evidence of compliance	6
4	Responsibilities	6
5	Supporting information	7
5.1	Background	7
5.2	Safety considerations	8
6	Informative References	8
6.1	References	8
6.2	Abbreviations	8
6.3	Definitions	9
6.4	Person accountable for the document	10
6.5	Document history	10

1 Purpose

- 1.1 The purpose of this standard is to define the human factors (HF) integration processes to be applied to all services and works carried out for London Underground.

2 Scope

- 2.1 This standard applies to and shall be used as follows:
- a) The standard applies to systems operated by London Underground end-users - Operations and Maintenance Staff, and Customers - and the related procedures, tasks and environments. This includes, but is not limited to, areas such as service control, station control and train operation, depot operation, maintenance, and customer flow.
 - b) It is to be used by those delivering modified and new technology systems to London Underground. This includes London Underground staff with responsibility for engineering, staff selection and training, the development of operations and maintenance rules and procedures, and supplier organisations and related staff.
 - c) The standard requires the satisfactory operation and maintenance of systems to be addressed.
 - d) The standard is not restricted to use by HF specialists, however its application must be overseen and approved by those individuals who are accredited to deliver HF engineering for and to London Underground.
 - e) Successful execution of the standard's requirements can only be achieved through efficient application of HF methods and techniques. At the planning stage, those with responsibility for HF delivery must provide a justification for their approach, for approval by the standard owner, or delegate.

3 Requirements

3.1 End-user Representation

- 3.1.1 The roles of Operations Acceptance Manager (formerly User Acceptance Manager), Maintenance Acceptance Manager and Customer Acceptance Manager shall ensure their respective end-users are represented.
- a) a representative cross-section of typical end-users, some of whom may eventually form part of the delivered system, will be made available for end-user consultation;
 - b) An appropriate level of trade union health and safety and other stakeholder consultation shall be provided for.

Note: The Acceptance Manager roles will be executed by individuals identified by relevant business stakeholders.

- 3.1.2 Adequate provision shall be made for the chosen end-user representatives to support the HF process. The means by which this will be achieved will depend upon the London Underground management organisations for end-user representatives, but will need to avoid remoteness from, and conflict with, the resource required for normal day to day activities.

3.2 Operational and Maintenance Concepts

- 3.2.1 Producing a concept of operation or maintenance for a future system is a complex process and will require the co-ordinated collaboration of appropriate technical,