

Category 5 Standard

S5540 Safety Verification

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MAYOR OF LONDON



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1 Purpose

- 1.1 This standard describes LU's requirements for compliance with the safety verification provisions of the Railways and Other Guided Transport Systems (Safety) Regulations (ROGS); including:
- a) Determining the applicability of safety verification;
 - b) Appointment of a competent person to undertake safety verification;
 - c) Determining LU safety verification activities;
 - d) Documenting and implementing safety verification activity;
 - e) Reporting on safety verification activity.

2 Scope

- 2.1 This Standard applies to changes which put into service new or altered vehicles or infrastructure which:
- a) incorporates significant changes in its design and construction compared to the vehicles or infrastructure in use on LU (the "difference" test);
- and
- b) would be capable of significantly increasing existing risk, or creating a significant new safety risk to passengers or members of the public (the "risk" test).
- 2.2 This standard should be applied in addition to the arrangements outlined in LU Category 5 Standard 5-539.

3 Requirements

3.1 Identifying and resourcing safety verification

- 3.1.1 The Head of Engineering, supported by his/her selected resource, is LU's appointed Independent Competent Person (ICP) under the Railways and Other Guided Transport Systems (Safety) Regulations (ROGS).
- 3.1.2 The Gate Management Plan questionnaire which is completed at the Outcome Definition stage of the Project Management Framework (PMF) shall be used by Project Managers to identify projects which potentially put into service new or altered vehicles or infrastructure which:
- a) incorporates significant changes in its design and construction compared to the vehicles or infrastructure in use on LU (the "difference" test);
- and
- b) would be capable of significantly increasing existing risk, or creating a significant safety risk to passengers or members of the public (the "risk" test).
- 3.1.3 Where such projects are identified, the LU Project Manager shall consult the LU Head of Engineering, when completing the Gate Management Plan questionnaire.
- 3.1.4 For projects meeting the criteria outlined in 3.1.2 that are not managed through the Project Management Framework, the LU Project Manager shall consult the Head of Engineering.



- 3.1.5 The Head of Engineering shall review the identified projects against the criteria outlined in 3.1.2 and confirm any elements of the project meeting the criteria.
- 3.1.6 For items confirmed under 3.1.5, the Head of Engineering shall assign resource to undertake safety verification that, singularly or collectively:
- a) has, or has access to the knowledge of the technology being verified. This may include training provided by the supplier of the technology to enable specific knowledge to be gained;
 - b) has the skills and experience to carry out the safety verification;
 - c) has not been responsible for the matters being considered by the safety verification;
 - d) is independent of the management chain for the matters being considered by the safety verification;
 - e) provide coverage of all items requiring safety verification.
- 3.1.7 The ICP resource assigned under 3.1.6 shall be assigned during the Outcome Definition stage, early enough in the project to enable them to be involved in:
- a) the selection and development of the design;
 - b) identifying or setting standards and conditions for the verification process;
 - c) setting out the inspection and assessment plan;
 - d) the development of LU's Verification Activity Plan (VAP), which is LU's written safety verification scheme.
- 3.1.8 When conducting safety verification the line management of those persons shall reside with the Director of Safety or a senior HSQE manager nominated by the Director of Safety.

3.2 LU's response to Supplier or third party assurance arrangements

- 3.2.1 The LU Project Manager shall ensure that the assurance arrangements proposed by the project team and any Suppliers/third parties for items identified in 3.1.5 are provided to and reviewed for acceptability by the assigned ICP resources.

3.3 Identification of safety verification activities

- 3.3.1 During the Outcome Definition and Feasibility stages of the project, the Project Manager shall provide the ICP resource with details of:
- a) The project scope;
 - b) The project interfaces.
- 3.3.2 During Feasibility and all subsequent project stages, the Project Manager shall undertake and provide the ICP resource with details of the risk assessment and control arrangements, conducted in accordance with LU Category 1 Standard 1-526 and where projects are managed under the PMF, PMF Product LU-PD-10615.
- 3.3.3 The ICP resource shall assess the risk arising from the design, testing, trials and commissioning of the new technology, giving consideration to:
- a) The project scope; including the novelty and complexity involved;
 - b) Interfaces with other assets, infrastructure and operators;
 - c) Information from operators and maintainers regarding working practices and known human factors issues;
 - d) The aspects of the design most likely to give rise to errors;