

## Category 2 Standard

# S2104

# Maintenance of Fire Systems and Fire Compartmentation

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## Contents

|     |                                                     |    |
|-----|-----------------------------------------------------|----|
| 1   | Purpose                                             | 3  |
| 2   | Scope                                               | 3  |
| 3   | Requirements                                        | 3  |
| 3.1 | General                                             | 3  |
| 3.2 | Interfaces with other systems                       | 4  |
| 3.3 | Fire Detection and alarm systems                    | 5  |
| 3.4 | Water Suppression Systems                           | 5  |
| 3.5 | Escalator Sprinkler Protection Systems              | 6  |
| 3.6 | Gaseous Extinguishing Systems                       | 6  |
| 3.7 | Fire Fighting Systems                               | 6  |
| 3.8 | Compartmentation                                    | 6  |
| 3.9 | Fire protection system drawings                     | 7  |
| 4   | Responsibilities                                    | 8  |
| 4.1 | COO Asset Performance (AP)                          | 8  |
| 4.2 | Asset Performance Manager/Technical Account Manager | 8  |
| 4.3 | Fire Engineers                                      | 8  |
| 4.4 | Maintenance Contractor                              | 8  |
| 4.5 | Project Manager                                     | 8  |
| 5   | Supporting information                              | 9  |
| 5.1 | Background                                          | 9  |
| 5.2 | Safety considerations                               | 9  |
| 5.3 | Customer considerations                             | 9  |
| 6   | References                                          | 9  |
| 6.1 | References                                          | 9  |
| 6.2 | Abbreviations                                       | 10 |
| 6.3 | Definitions                                         | 11 |
| 6.4 | Person accountable for the document                 | 11 |
| 6.5 | Document history                                    | 11 |

## 1 Purpose

- 1.2 This standard describes the requirements for the management and delivery of maintenance of services by London Underground. This is in order to demonstrate compliance with the Regulatory Reform (Fire Safety) Order 2005 and the Fire Precautions (Sub-surface Railway Stations) (England) Regulations 2009 where that Statutory Instrument applies.

## 2 Scope

- 2.1 This Standard sets out the requirements for ensuring that passive and active fire protection systems, and fixed and portable fire-fighting equipment, within London Underground (LU) stations and all other premises but not trains, are maintained in accordance with good industry practice and the law.
- 2.2 This engineering Standard applies to new and existing installations and supports the following LU Category 1 Standard 1-084 - *Maintenance of fire protection systems and compartmentation measures*

## 3 Requirements

### 3.1 General

- 3.1.1 The maintenance contractor shall provide an annual plan of maintenance activities which is verified as meeting the maintenance frequency and scope requirement for the asset. This plan will be uploaded onto a management system which will track and record the delivery of maintenance
- 3.1.2 All active fire protection systems and passive fire protection assets shall be subject to an effective and efficient maintenance regime. The work shall be undertaken in accordance with the relevant TfL standards and related guidance documents.
- 3.1.3 The maintenance of fire systems shall only be undertaken by suppliers that are approved under a European accreditation scheme for fire system/protection installers and shall certify the completed works in accordance with the relevant British or European standard.
- 3.1.4 The technical maintenance specifications shall take into account the following:
- a) planned preventative maintenance, where the facilities, equipment and devices affording fire safety are subject to comprehensive regular and periodic inspection, checks and testing as required by the relevant BS (or enhanced maintenance for the underground environment), to ensure that assets continue to be fit for purpose;
  - b) corrective maintenance, where defects identified during preventative maintenance are rectified within agreed time scales and to avoid contraventions with statutory requirements;
  - c) breakdown maintenance, where faults on the system are rectified as they occur, fault clearance times shall be as specified in the contract conditions.
- 3.1.5 The technical maintenance specifications provide details of the extent and frequency of maintenance. They shall be reviewed whenever the related standards

are revised (to ensure compliance with the latest BS and EN standards) and when new systems are introduced

- 3.1.6 All spares shall be of types that are approved to the relevant London Underground, Loss Prevention Standard, British or European Standard, or National Fire Protection Association (NFPA) Standard as used in the installation and specified by the product specific cat 2 standards.
- 3.1.7 A reporting facility shall be set up to provide a call out and breakdown service which shall operate continuously, 24 hours a day, every day of the year. Fault rectification shall be carried out to the required standards, within specified time scales, to meet the contract requirements
- 3.1.8 Faults that impact on the operation of the system, which cannot be rectified immediately shall be reported to the landlord, to enable the implementation of any mitigation that may be required. On sub-surface stations, the landlord shall be reminded of their responsibility to implement requirements of 'failure of equipment' (Bb001 and Rule Book 12). The responsible AP Manager shall also be advised in the event of either of the above. Faults exceeding 48 hours may need exemptions against the Fire Precautions (Sub-surface Railway Stations) (England) Regulations 2009 and the Fire Compliance Unit notified.
- 3.1.9 Each system/device shall have its own asset record. Records shall be made and kept of all inspections, checks, tests and repairs, on date-stamped worksheets. Each worksheet shall include a clear and unique reference to the engineer performing the work and be updated immediately any changes are made to the system.
- 3.1.10 The maintenance of fire engineering systems and compartmentation shall continue to be performed and recorded throughout all project works. Responsibility shall be confirmed prior to the commencement of works. During any works to premises, fire systems, equipment and fire compartmentation (including all passive fire protection measures) shall be kept fully maintained and operational, where the premises/areas are required for their designated use.
- 3.1.11 The management of drawings and message changes shall be undertaken to procedure PR0632.

## 3.2 Interfaces with other systems

- 3.2.1 The fire systems have significant interfaces with the following systems:
  - a) Fire safety strategy/ operational procedures
  - b) Lifts and escalators
  - c) Ventilation/ smoke control systems
  - d) Water supplies
  - e) UTS Gates
  - f) Public Address / Voice Alarm
  - g) Premises Assets
  - h) Electrical supplies
  - i) Smoke fire dampers
  - j) Fire dampers