

Standard Category

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S1552

Contract QUENSH Conditions

Issue no.:	A17		Issue date:	August 2015
			Review date:	August 2020

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1 Purpose

The purpose of the Contract QUENSH (Quality, Environmental, Safety and Health) Conditions is to control risk down the supply chain for contracted work on LU Operational Property or other LU premises which affect / impact upon the operational railway. QUENSH enables the Client to identify, against the particular package of work, what risks need to be considered during implementation. The relevant QUENSH requirements can then be identified, agreed with the Supplier and applied to the contract to mitigate those risks.

QUENSH is therefore a document which will enable PFIs and Tube Lines, alternative supplier organisations and other parties working under an agreement with LU to cascade the appropriate LU requirements down their supply chain to ensure that risks are understood and controls embedded in plans and working arrangements.

QUENSH is not applied to the relationship between LU and Tube Lines.

Note: The requirements detailed in this standard are in addition to legislative requirements, British and European standards, industry good practice and other Category 1 Standards.

2 Scope

QUENSH applies to every contract for works, activities or services supplied to LU which take place on LU Operational Property or other LU premises which affect / impact upon the operational railway. The Client determines the relevant conditions on the basis of risk associated with the works, activities or services.

The Client may apply QUENSH, in its entirety or in part, to any other contract that affects LU's business.

The project scope will determine the standards, or parts of standards, that must apply for LU and nominee Company project work

Concessions to standards are only required to those standards that are determined by the scope and when those standards are not met.

When a project is underway, new or changed standards must not be used to vary scope, particularly beyond design 'freeze', unless the change relates to a change in law or there is a demonstrable cost benefit.

3 Roles and responsibilities

The application of QUENSH and the relationship that shall be applied between the Client and Supplier is defined below and described further in Attachment 1.

3.1 The Client

The Client shall:

- 1) be responsible for ensuring the requirements outlined in this standard are managed in all contracts where they are applicable.
- 2) identify the point of contact that will represent the Client's organisation.

This representative shall be responsible for ensuring compliance with LU's Standards and processes. This work may be amalgamated within other, recognised roles within the Client's organisation.

3.2 The Supplier

The Supplier shall be responsible for managing the activity of the Supplier's organisation and their supply chain so that compliance with the QUENSH Contract Conditions and the associated LU Standards is achieved.

The Supplier shall:

- 1) Be responsible for satisfying QUENSH requirements applicable to the works;
- 2) Have or develop a comprehensive knowledge of the QUENSH Contract Conditions and the associated LU Standards;
- 3) Have or develop an understanding of how 'works' can impact on the operational railway, including LU staff, customers and assets;
- 4) Ensure that all suppliers forming part of the supply chain (sub-contractors) comply with all applicable QUENSH Contract Conditions and associated LU and Tube Lines standards.
- 5) Upon contract award, the point of contact who will represent the Supplier's organisation and their supply chain, where applicable.

This representative shall assure the Client that full compliance with QUENSH is being achieved within the supplier organisation and its supply chain, where applicable. This work may be amalgamated within other, recognised roles within the Supplier's organisation.

Note: The intention is to accommodate this work within the Supplier's project team without creating a specific role; the point of contact should be a co-ordination function.

4 Agreement of the applicable QUENSH contract conditions

The QUENSH contract menu (form F0780) or the contract shall be used by the Client to identify and apply relevant requirements to particular packages of work.

The applicable conditions shall be identified by competent persons.

Where a QUENSH menu is produced, it shall be issued as a part of the Invitation to Tender (ITT).

The Supplier shall evaluate the scope of work against each condition selected by the Client on the menu as being applicable. If the Supplier's selection of requirements differs from the Client's then the Supplier shall give a clear explanation of the reason for these differences as part of the tender.

Differences in the Client and Supplier menu selections will be discussed and resolved with the Client's representative at subsequent tender review meetings.

The agreed version of the menu selections shall form part of the Contract in that it shall be complied with by Suppliers and their supply chain.

The menu shall be updated by the Client for agreement by the Supplier if the contract is subsequently varied to include significantly additional, or different, works or services.

5 Supplier's selection of sub-contractors

The Supplier shall ensure that its procurement management system evaluates and selects sub-contractors not solely on the basis of cost but also for their ability to meet LU requirements. The Supplier shall provide with their tender details of the basis for the selection of all proposed sub-contractors and how they are selected.

6 Identification of Safety Critical Activities

Suppliers shall identify all Safety Critical Activities associated with the Contract and submit details with their tender. LU Safety Critical Activities should be identified as set out in legislation and LU Standard S1548 'Safety Critical Work'. Agreement shall be reached with the Supplier regarding which Safety Critical Activities are associated with the Contract.

The Supplier shall regularly review the method of work and identify any further safety critical tasks for agreement with the Client before starting that activity.

7 Works Environmental Management

The Supplier shall develop and document arrangements for managing environmental impacts.

The Supplier shall:

- 1) ensure that the arrangements demonstrate the approach and structure of the necessary environmental management to be employed on the Contract;
- 2) maintain and periodically review the arrangements and forward amendments to the Client.

8 Emergency Plan

The Supplier shall prepare Emergency Plans relating to fire and other health, safety and environmental emergencies and ensure that all personnel are aware of the arrangements in them. The Emergency Plan shall define the arrangements, procedures and measures that will be implemented to eliminate or minimise the identified hazards and the potential hazards, including those specified by the Client. The Plan shall:

- 1) clearly state the procedures to be adopted for each emergency;
- 2) list the duties and responsibilities of personnel on site;
- 3) identify a senior site official with responsibility for liaison with the emergency services; and
- 4) include the names and telephone numbers of the Supplier's staff (including mobile telephones if applicable) who can organise or assist with emergency action (including safety, fire or environment) in the event of an incident occurring on the site outside normal working hours or when the Supplier is absent from the site.

All such plans shall reflect and be complementary to local LU evacuation procedures.

The Emergency Plan shall be kept at site along with any other documents, posters or notices required by law or directed by the Client. Where the works, activities or services being provided is carried out on an 'ad hoc' basis, e.g. fault repair, the Emergency Plan shall always be available on site while work is in progress. The Supplier shall provide the Client with a copy of the Emergency Plan.

9 Method Statements

The Supplier is free to use its own format for method statements; LU does not mandate a specific format. However, the LU supply chain has developed a method of producing and briefing a safe method of work to the labour force. Copies of the templates can be obtained from LU's Approved Products Register at www.lu-apr.co.uk by registering and then searching for SMoW or selecting product ID 479.

Note: The use of this format is not mandatory, but suppliers are free to use it or adapt it to suit their works.

10 Health, Safety and Environment File

The holder (LU or Tube Lines) of stored Health, Safety and Environmental file information and any other stored health and safety information on the known or potential hazards and risks that are present at a location shall supply the information to any party requesting it who is either engaged or potentially involved in work at that location.

11 Pre-start LU health, safety and environment meeting

The Client shall determine the need for an LU specific pre-start health, safety and environment meeting. Where required the Client shall invite (as appropriate) representatives from the London Fire and Emergency Planning Authority (LFEPA), LU, Tube Lines Fire Safety Manager or relevant fire protection task engineer, relevant safety and environmental regulators, the Supplier's representative, Supplier site representatives and any specialist representatives (such as the LU or Tube Lines Asbestos Control Units) to attend a pre-start meeting.

If appropriate the Client shall also invite a representative from the British Transport Police to attend the pre-start health, safety and environment meeting to discuss work likely to affect passenger flow and movement in stations, crime prevention and general security.

Appropriate attendees shall also be invited to visit the site on a regular basis. The Supplier shall comply with any instructions from the Client resulting from these visits.

12 Supplier's site induction

The Supplier shall ensure that their personnel and any visitors to the site are made aware of the Supplier's health, safety and environmental requirements specified in the Contract relevant to site safety.

13 Site Person in Charge

A declaration of the competence of the Site Person in Charge, contained in form TSW 035 available from the Client, shall be signed by the employing manager which shall deem that the Site Person in Charge has the necessary supervisory skills and sufficient knowledge on the technical, health, safety and environmental aspects of the scope of the work to act in the capacity of the Supplier's Site Person in Charge.

Where the Site Person in Charge/Protecting workers on the Track will be working in an area defined as 'track', the roles and the responsibilities of a Site Person in Charge/Protecting Workers on the Track, including the additional requirements for their appointment, can be found in the following Rule Books:

- 1) Rule Book 14 'Possession planning and management'
- 2) Rule Book 15 'Possession protection methods'
- 3) Rule Book 16 'Going on the track in Engineering Hours'
- 4) Rule Book 20 'Engineering staff - Traffic Hours protection'

Copies of the Site Person in Charge Declaration Form (TSW035) which can be used for both Track and Non-Track purpose can be found on the Rule Book intranet site using the following link:

<http://onespace.tfl.gov.uk/lu/OSSRB/default.aspx>

14 Staff requirements

14.1 Behaviours

14.1.1 Alcohol and drugs

In compliance with LU Standards S1251 'Alcohol and work' and S1257 'Drugs and work' and the Transport and Works Act, all Suppliers' staff are prohibited from consuming alcoholic drinks or consuming or using drugs at work, or from being under the influence of alcohol, drugs or other substances that might impair the proper performance of their duties on LU's Premises.

A DAMSP (Drugs Alcohol Medical Screening Programme) Certificate shall be carried by the Supplier's personnel at all times where they are undertaking Safety Critical Activities.

Suppliers shall conduct unannounced drugs and alcohol testing of at least 5% of their workforce that undertake Safety Critical Activities per annum.
Testing for drugs and alcohol, certification and evidence

When required by the Client, the Supplier's personnel shall co-operate by providing breath tests or specimens for analysis in the following circumstances:

- 1) prior to starting the Contract or an approved training course;
- 2) annually;
- 3) unannounced and on a random basis in addition to testing for any other reason;
- 4) when suspected of an infringement of a legal requirement;
- 5) following an incident.

Failure to comply with this requirement may result in civil or criminal action against the individual, the Supplier or both. Testing will be undertaken at the Supplier's expense. Information on laboratories approved by LU for alcohol and drugs screening is available from the Client.

Records of testing shall be produced by the Supplier on request or at specified intervals as determined by the Contract. Records of individuals who have failed to meet LU's requirements shall be supplied to the Client and made available to LU.

14.1.2 Control of hours worked

The longest shift in any roster shall be 12 hours.

The minimum amount of rest between any two shifts shall be 11 hours.

Suppliers shall comply with the Working Time Regulations and any subsequent amendments. As determined by the Supplier, the consecutive days that may be worked before a rest period when working on, over or adjacent to the railway shall be either:

- 1) six consecutive days, followed by a rest period of not less than 24 hours;
- 2) 12 consecutive days, followed by two consecutive rest days, each of which is not less than 24 hours;
- 3) Within any 14 day period, two rest periods, each of which is not less than 24 hours;

In calculating the numbers of hours worked by personnel, the Supplier shall take fully into account those hours worked for any other Supplier.

The Supplier shall maintain records of employee's working hours and these shall be made available to the Client, immediately upon request, for monitoring and audit purposes.

14.2 Knowledge

14.2.1 English language

The default language for all Suppliers and services to LU shall be English and this requirement shall extend to:

- 1) oral communications;
- 2) all written communications and instructions including any training or technical material provided by any Supplier following the modification, renewal or replacement of any asset.

Those staff that have responsibility for managing the Contract and the Supplier's personnel whilst they are working on LU Premises shall be able to communicate in both written and oral English to a standard appropriate to the tasks being performed.

The Client may permit the presence of Supplier's team members who are not competent in the English language provided that the Supplier can demonstrate to the satisfaction of the Client that:

- 1) such team members will receive the required safety training/briefing (including any emergency procedures) before commencing work;

2)the Supplier will make appropriate arrangements to ensure that instructions are effectively communicated to, and understood by, all such team members.

14.2.2 Access Card and Worksite Briefing

All Supplier personnel who work on LU Premises shall be able to evidence by approved methods that they have successfully attended an LU specific Health & Safety induction as set out in LU Rule Book 10 - Station Access.

Suppliers shall maintain records of all the operatives attending the briefing. These records shall be made available to the Client upon request.

14.2.3 Visitors to sites

Visitors who are accompanied by a suitably competent and licensed Tube Lines or LU staff need not hold an LU access card nor complete the worksite briefing where they are not undertaking any physical work; where their presence on site is not interfering with any work; where they are not going on or about the track in either Engineering or Traffic Hours, or anywhere where their presence places neither themselves or others at any risk.

14.3 General competence

14.3.1 Evidencing competence of safety critical staff

The Supplier shall demonstrate the competence, medical fitness, qualifications and training of safety critical staff as set out in LU Standard S1548 'Safety Critical Work'.

14.3.2 Identification of safety critical staff

The Supplier shall provide a means of identification for all staff employed on safety critical works as set out in LU Standard S1548 'Safety Critical Work'.

14.3.3 Competent external safety critical personnel

The services of Protection Masters, Train Masters, Possession Masters and Cable Linemen shall only be procured from organisations that have demonstrated themselves to be competent to provide such services.

14.3.4 Training

The Supplier shall ensure that its staff and those of its appointed supply chain) are competent, fully aware of QUENSH requirements and the controls and process to manage the risks pertinent to both the works and individual staff roles.

Where required by the Contract and before starting work on site, the Supplier's personnel shall attend and achieve the required standard in the courses agreed with the Client. These courses will cover the rules, procedures and instructions to ensure that staff are safe on or about the operating railway. Training can only be provided by an LU Accredited Training Provider.

Supplier's personnel attending any of LU safety training courses shall not have performed work in the 11 hours preceding the start of the course and be sufficiently alert and awake as to derive full benefit from the course.

Note: Attendance at an LU accredited course shall be considered to be the equivalent of performing work for the duration of the course. The Accredited Training Provider will issue a certificate to the Supplier's personnel who have successfully completed a course. This certificate shall be carried at all times whilst on duty. The certificate will not be renewed on expiry unless the Supplier's personnel have attended and passed the appropriate refresher training course.

All training certificates issued by an Accredited Training Provider remain the property of LU and are valid for the duration stated on the certificate. No certificate shall be valid if it has been defaced.

14.3.5 Asset specific competence

Suppliers shall demonstrate to the Client the competency to perform works on specific assets as required by the governing standards.

14.4 Medical requirements

All Suppliers shall comply with LU's medical requirements as set out in LU Standards S1601 'Management arrangements to assure medical fitness' and S1602 'Corporate medical standard for personnel requiring safety on the track certification'.

14.5 Identification of Suppliers staff

The Supplier's personnel and their sub-contractors shall wear high visibility clothing which carries the Supplier's company name, at all times when on or about the operational railway.

The Supplier's staff shall not wear LU branded high visibility clothing, unless working under a "labour only" contract and requested to do so by the LU Project Manager.

High visibility vests shall comply with the requirements of LU Standard S1483 'High visibility clothing for going on or near the track'.

Where, following a risk assessment, the wearing of a separate high visibility garment could produce a risk of personal injury, and then the Supplier shall agree

other arrangements with their LU point of contact to ensure that the Supplier's staff and sub-contractors are easily identified.

14.6 Clothing

Suppliers shall not wear any garment or article that impedes their vision or hearing when working on LU infrastructure, unless required as part of a safe system of work, e.g. hearing protection.

The wearing of hats, clothing with hoods and any other headwear is prohibited when working on LU infrastructure with the exception of:

- Hoods or headwear required as PPE in response of a risk assessment;
- Headwear specifically designed:
 1. To be compatible with PPE **and**
 2. Not to impede vision or hearing.

15 Permits and licences

15.1 LU specific permits and licences

Permits and licences shall be required for:

1. Movement of materials (see clause 35.1 'Conveyance of loads on lifts and escalators')
2. Storage of materials (see clause 44 'Storage')
3. Access to sub-stations, electrical switchrooms, equipment rooms and signal equipment rooms (see clauses 0 '
4. Access to electrical sub-stations, working equipment, relay and other secure rooms' and 41 'Entering areas with gaseous fire suppression systems').
5. Working in the lift or escalator environment (see clause 37 'Working in or near lifts and escalators');
6. Hot work and fire hazardous work operations (see clause 43 'Hot work and fire hazards'); and
7. Visiting LU operational locations (see clause 14.2.3 'Visitors to sites')

Where licences or permits are required, the Supplier shall ensure they are prominently displayed at all times during the work period and in a position and manner approved by the Client. If the licence or permit is defaced, removed or obstructed without authority, the Supplier shall apply for it to be replaced immediately.

The Supplier shall apply for permits or licences to the Client at least 14 days prior to the proposed commencement date.

Permits, certificates and licences are issued on an individual basis and are not transferable to other persons or companies. If any of these documents are lost or damaged, the Supplier must advise the Client as a matter of urgency.

15.2 Permits, licences and certificates for Supplier's staff

Suppliers shall:

- 1) hold a record of all licences, permits and certificates issued to its staff by LU or Accredited Training Providers;
- 2) ensure that their staff carry their DAMSP (Drugs, Alcohol Medical Screening Programme) certificates and relevant training certificates;
- 3) allow sufficient time to ensure that its staff are properly trained and registered before starting work on the Contract.

If the Supplier's staff fail to produce the stipulated licences when requested to do so by any member of LU staff, they shall be required to leave the LU Premises immediately. No cost or delay incurred by the Supplier as a result of such a failure will be accepted by LU.

16 The Principles of Access

16.1 Introduction

Access to the LU network is controlled by separate but interdependent regimes.

16.2 Access to Stations

All Suppliers shall access LU station premises in accordance with Rule Book 10 'Station Access'. Suppliers shall seek access to the station via the LU Access Department.

All Supplier staff shall be able to evidence by approved methods that they have successfully attended an LU specific Health & Safety induction. Additional authority will be required to gain access to any secure equipment room. The person leading the group must be competent to act as a Site Person in Charge:

- for non-track locations by a letter of authorisation from their accountable manager

16.3 Access to the Track

Access to London Underground Railway Track and the Protection required to permit this shall be in accordance with the following Rule Books:

- 1) Rule Book 14 'Possession planning and management'
- 2) Rule Book 15 'Possession protection methods'
- 3) Rule Book 16 'Going on the track in Engineering Hours'
- 4) Rule Book 17 'Managing access to the track in Engineering Hours'
- 5) Rule Book 20 'Engineering staff - Traffic Hours protection'

6) Rule Book 21 “Personal safety on the track”

For access to the track where Network Rail rules apply, Network Rail Protection Standards must be complied with. LU will allow the Supplier’s personnel access to reach the site locations via the railway using an authorised route, except where there is public access.

Permission to carry out work on LU infrastructure must be granted by the LU Access Department. Access applications, particularly at interchange and interface locations, may require permission to be granted by more than one party.

16.4 Access to depots

Procedures for gaining access to a depot are set out in LU Rule Book Support Document ‘Depots and Sidings’.

All non-emergency work or non-call staff work must be requested in advance from the LU Access Department. Once approved by the LU Access Department, work will be published in the Engineering Notice Look Ahead and Engineering Notice . Before starting work, staff must obtain permission from the designated person responsible for the depot concerned.

17 Applying For Planned Access

17.1 Introduction

All access requests, including those of PFI suppliers, third parties and suppliers contracting with Tube Lines, shall be made via the Worksite Request System, and then processed by the Access Department. A booking reference number will be issued to the supplier once the request has been operationally reviewed, clash checked and approved.

18 Applying For General Access

General Access (GA) is a category of access for undertaking non-exclusive / non-restrictive works on LUL infrastructure, using all necessary tools and equipment. Booking reference numbers may be valid for up to a whole financial year, but may also be issued for shorter time periods to suit work demands.

18.1 General Access

This will be granted at the discretion of the Access Manager, if the nature of the work meets the requirements for a General Access application. Constraints that apply to general access.

A Supplier shall only undertake GA activities that have been previously agreed by the LU Access Department. Only those companies or departments authorised for General Access shall carry out these activities. (This may include sub-contractors, but they will be working under the main Supplier title and it will be the responsibility of the main supplier to manage this process). Planned Work shall be given precedence over GA activities. A General Access booking reference number will be provided for each GA activity being undertaken. Requests for GA shall be made at the notice period set out in contractual documentation before start on site. Bookings will be authorised for periods up to 12 months.

19 Access for Fault Repair

Access in response to a reported fault is managed differently to planned access. By definition it is not for planned works ordered through the PPP, PFI or another contract. Faults are reported to a Fault Reporting Centre (FRC). For each job raised in response to a reported fault, a unique fault reporting number is allocated. The fault number is the equivalent to a SABRE Number and can be used to gain access to a station or the track for the purpose of rectifying the reported fault. Only recognised fault numbers are acceptable 'access numbers' to entitle the Supplier access onto the station to fix the fault. Any fault number presented to the Track Access Controller (TAC) when access to the track is being requested must be supported by verification of the number, work site and work description being supplied to the TAC by the FRC. These details are normally faxed direct to the TAC by the FRC. Fault rectification works do not require an Operational Assurance Certificate. A safe system of work must be established and applied at all times.

Note: In Traffic Hours at busy stations, it is strongly advised that the Supplier contact the Station Supervisor (or the Duty Station Manager's office) before attending site. There may be working restrictions due to passenger volumes. It may be necessary to rectify the fault overnight in Engineering Hours.

20 Operational Assurance

Operational Assurance (OA) approval (by LU) is required when planned engineering work could impact on station or train operations. The criteria for this are set out in LU Standard S1538 'Assurance', Section 3.9 'Supplementary requirements for the assurance of works impacting on the operational railway'. The OA process ensures that, for planned work on LU Premises, which may have an operational impact, the relevant LU operational/access manager has been assured that:

- 1) Safety risks to customers and staff are being managed to As Low As Reasonably Practicable (ALARP);
- 2) Suitable consultation has taken place between the operational / access managers or their nominated representatives and those conducting the work.

Application to the relevant LU operational/access manager for OA should consider ongoing operational inspections and consultation with regard to cross boundary issues. Work cannot take place and access bookings will not be published in the Engineering Notice or the Station Works Plan (SWP) unless OA has been received and accepted by the relevant LU manager for the site. Access bookings may be made in advance of OA being granted.

21 Closures and possessions

21.1 Requirements for Closures

Where works will affect normal LU Station or Trains operation the Supplier shall request a Closure. Application is made on a Closures Request Form and must be submitted to LU 540 days in advance of the proposed date for a Major Closure and 222 days in advance of a Minor Closure, as required by the contractual documentation. Shorter notice may be accepted by LU at its discretion. Major closures are those which occur between 06:00 and 21:00 Monday to Friday, excluding any works which are lift and escalator based. Closures outside this time are deemed Minor Closures or station closures.

21.2 Requirements for possessions

The requirements for planning and managing possessions are specified in LU Rule Book 14 'Possessions planning and management' and Rule Book 15 'Possession protection methods'.

For possessions involving other infrastructure controllers or equivalent, the site owner's procedures and Site Specific Engineering Agreements must also be applied. A representative from the other organisation must attend the possession planning meeting, at which:

- 1) Protection of the possession area beyond the procedural boundary must be arranged with the representative from the other organisation. The agreed details must be published in the Engineering Notice and the other organisations' Weekly Operating Notice or equivalent publication.
- 2) It must be agreed which method of protection will be used and what means of communication will be established between LU and the other organisation. Except for emergency possessions, details of all possessions must be published in the Engineering Notice.

22 Controls at Point of Access

22.1 Publication of works

All planned work, after approval, is "published" in one of the following:

- 1) The Traffic Circular and Engineering Notice Look Ahead for Trains or possessions, exclusive/restrictive access etc on the track.
- 2) The daily Engineering Notice .
- 3) The SWP for stations;
- 4) The GA Plan;
- 5) The SABRE system.

Planned Work cannot take place unless published in one of the above.

22.2 Checks at point of access

The Supplier must be prepared to show evidence of:

- 1) Booking reference number (including GA) or fault number;

- 2) Appropriate Personal Protective Equipment (PPE);
- 3) that they have successfully attended an LU specific Health & Safety induction along with other, certificates and licences as appropriate.

The Supplier shall ensure that copies of the relevant Health, Safety and Environment arrangements and safe systems of work are readily available at work sites.

22.3 Signing-on with the Station Supervisor

The Station Visitors Record Sheet and Person in Charge Evacuation Register (PICER). All persons seeking access need to demonstrate who they are; their relevant competencies and that they have a safe and efficient method of working. Suppliers shall sign on with the Station Supervisor and shall complete the Person in Charge Evacuation Register (PICER) as required by Rule Book 10 'Station Access'.

22.4 Track Specific Requirements

22.4.1 Person providing protection

The roles and responsibilities of the Protection Master/Protecting Workers on the Track are set out in the LU Rule Books, including:

- 1) Rule Book 15 'Possession protection methods'
- 2) Rule Book 16 'Going on the track in Engineering Hours'
- 3) Rule Book 20 'Engineering staff - Traffic Hours protection'

22.4.2 Possessions

The Possession Master takes responsibility for access to the area under possession and safety within the entire area of a possession. No one can enter this area without first receiving permission from the Possession Master. The other personnel listed above are dedicated protection resources which may be required for a possession. Information on possessions, including roles and responsibilities for the Possession Master is contained in Rule Book 14 'Possessions planning and management'.

23 Removal of Supplier's personnel from LU Premises

Suppliers shall take appropriate actions to prevent and eliminate unacceptable behaviour or conduct. The Client reserves the right to object to and (where appropriate) immediately expel any of the Supplier's personnel or supply chain employed on the works.

24 Incidents

All Suppliers shall have contingency plans and remedial measures for incidents, including provision of support for individuals experiencing trauma as a consequence of an incident. All Suppliers shall comply with LU Standard S1556 'Incident Reporting and Investigation'.

25 Notification of regulatory concern or action

The Supplier shall notify the Client representative of any regulatory concern or action by the end of the following working day. The notification shall include a description of the concern or action, the response and any additional information to aid understanding. Copies of any communication in connection with the regulatory concern or action shall be provided.

26 Confidential Incident Reporting and Analysis System (CIRAS)

Suppliers shall ensure that all staff are aware that they can contact the CIRAS on FREEPHONE 0800 4 101 101 at any time, should they wish to report (in complete confidence) any matter of health, safety or environmental concern, where existing reporting systems are considered to have been ineffective or inappropriate. Suppliers and their employees and supply chain shall co-operate fully with any investigation arising from the use of CIRAS.

27 Monitoring

27.1 LU inspections

A schedule of site inspections may be required by the Client as part of the arrangements made to provide assurance.

27.2 Monitoring the supply chain

The Supplier shall monitor the performance of its staff and its supply chain and ensure that the results are used to:

- 1) control their activities;
- 2) assess its suppliers' suitability for future works.

These results (records) shall be made available to the Client upon request.

27.3 Health, safety and environmental surveillance by the Supplier's personnel

The Supplier shall submit to the Client details of the Supplier's proposed level of site health, safety and environmental surveillance together with the nomination of health, safety and environmental supervisors and officers who will have an overview of all site health, safety and environmental matters. Such details shall include outline programmes for:

- 1) safety tours and detailed safety inspections;
- 2) the auditing of site activities to ensure that the correct health, safety and environmental management procedures are followed.

27.4 Work location inspection and audit

All Suppliers shall provide full and free access to LU and the Client for the purpose of carrying out audits and site inspections to monitor compliance with the health, safety, quality and environmental conditions attached to their Contract.

The Client (or their agents) may at any time undertake inspection of the equipment and audit or check any aspect of the Supplier's performance of the Contract. The Client (or their agents) shall inform the Supplier of the objective of any audit prior to its commencement.

The Supplier will promptly provide all reasonable co-operation in relation to any inspection, audit or check including:

1. granting access to any premises, equipment, plant, machinery or systems used in the Supplier's performance of the Contract, or where such premises, equipment, plant, machinery or systems are not the Supplier's own using reasonable endeavours to procure such access;
2. ensuring that appropriate security systems are in place to prevent unauthorised access to, extraction of and alteration to data during the audit;
3. making any contracts, other documents and records referred to in the health, safety, quality or environment Contract conditions available for inspection;
4. providing a reasonable number of copies of any contracts, other documents and records referred to in the health, safety, quality or environment Contract conditions, required by the auditor, or granting copying facilities to the auditor for the purposes of making such copies.

The Client (or their agents) shall have the right to carry out such inspections or audits, as they consider necessary. The Supplier shall make available, at the Supplier's cost, any of their specialist staff as may be agreed necessary for the performance of such inspections or audits carried out by Client (or their agents).

The Supplier shall work closely and co-operate fully with the Client and LU personnel on matters of health, safety and environment. The Supplier shall fully and unreservedly accept that responsibility for the safety of the works rests with the Supplier. The participation of LU, Tube Lines staff or their agents in inspections and audits does not in any way absolve the Supplier from that responsibility.

27.5 Timescales for rectifying non-compliances

The Client (or their agents) and the Supplier shall agree the timescale for rectifying any non-conformances or sub-standard conditions that are identified during any audit or inspection.

28 Radio transmitters and transceivers

Suppliers wishing to use radio sets, transmitters and receivers on or about LU Premises shall only do so following agreement from the Client. The Client shall consider:

1. an assessment of any risk arising from (i) the use of such equipment and (ii) the failure to use such equipment;
2. output power;
3. licence number allocated by Ofcom;
4. allocated frequency.

The use of radio transmitters and transceivers in Signal Equipment Rooms is prohibited.

Suppliers shall comply with LU Standard 1-193 'Electromagnetic Compatibility (EMC) with LU Signalling System Assets'.

29 Mobile phones

Mobile phones of any description shall only be used when the user is in a place of safety or if there is an emergency. Hands-free mobile phones shall not be used in the track environment or any other environment where it is necessary to receive an audible message. In the track environment mobile phones shall be on silent whilst duties are being undertaken to avoid the risk of distraction to the user or anyone else in the vicinity.

The use of mobile phones in Signal Equipment Rooms is prohibited.

30 Knives

The use of **fixed blade** knives is prohibited on all LU work sites. Work Methods should be designed to eliminate the use of knives. Where the need for cutting cannot be eliminated, a fit for purpose tool (e.g. a cable stripper for stripping cables) must be used. If no other options are available, safety cutters with **automatic** blade retraction must be used as an alternative to open blade knives.

31 Site health, safety and environment committee

The Client shall consider whether or not there is the need for a separate Site Health, Safety and Environmental Committee, consideration shall include the size and extent of the work and also the level of HS&E risk involved.

Where this is the case the Supplier's safety and environmental officer(s) or designated representative shall attend meetings of a Site Health, Safety and Environment Committee or similar meeting established and chaired by the Supplier's representative. The meeting will also include representatives of other Suppliers, major sub-contractors, designated Suppliers, utility companies, other authorities (Fire Brigade, Police, etc.), relevant Health, Safety and Environmental regulators and other specialists as required.

The Client shall be invited to participate.

The Supplier shall assess and implement without delay any decisions or recommendations made by the meeting on matters of health, safety and the environment.

32 Site housekeeping and security

The Supplier shall keep the work location in an orderly state appropriate to the avoidance of danger to persons and avoidance of adverse impact on the environment.

The Supplier shall make the site safe and secure at the end of each shift and shall fit all access doors with suitable locks for this purpose. If work is being carried out on the operating railway, a complete set of keys shall be provided by the Supplier to the Station Supervisor after each work shift. (This is for site access only and not for access to pieces of equipment, power supply etc.)

The Supplier shall ensure that the work site is free from all the Supplier's equipment, materials and waste on completion of the works or when the site is returned to normal operations, unless covered by a storage licence. The Supplier shall comply with LU Standard S1158 'Track - Inspection and Maintenance'.

The Supplier shall make suitable provision for disposing of unused or redundant assets and materials, and are responsible for determining the correct disposal methods. Consideration should be given to reusing and recycling these materials. The Supplier shall ensure that the Client is informed of plans for disposing of assets and materials.

33 Accidental damage, obstruction or interference with assets

Should any damage occur to an asset the Supplier shall immediately report the damage to the FRC.

The Supplier is not permitted to rectify the damage for works out of scope as this may increase the risk of a consequential incident. For example, correcting the alignment of a platform camera accidentally knocked could well create a blind spot.

If the damage affects LU operations or if there is a risk to any person the Supplier shall report the details in accordance with the requirements of LU Standard S1556 'Incident reporting and investigation' and notify the Station Supervisor.

34 Delivery of materials

Suppliers shall not deliver materials through public areas of the operational railway during Traffic Hours except with the approval of the relevant LU operational/access manager. Suppliers should also consider the environmental impacts associated with deliveries in accordance with Clause 56 Noise and Vibration.

35 Conveyance of loads

35.1 Conveyance of loads on lifts and escalators

In Engineering Hours, suppliers shall only convey loads (other than hand-held loads) on escalators and in lifts when in possession of a valid Movement of Materials Licence and valid certificate to enter LU premises.

In Traffic Hours, suppliers shall only convey loads (other than hand-held loads) on escalators and in lifts when in possession of an approved Operational Assurance Notification form, a valid Movement of Materials Licence and valid certificate to enter LU premises.

All loads shall be properly secured at all times to prevent spillage and movement. Materials shall be moved in accordance with the requirements of LU Rule Book 9 'Lifts, escalators and moving walkways', LU standards S1092 'Escalator and passenger conveyors' and 1-093 'Lifts including Firefighter and Evacuation Lifts'

35.2 Conveyance of hazardous materials and substances

Suppliers may transport materials and hazardous substances, where approved for use, in the required containment and in a manner addressed and agreed under an accepted safe system of work.

The Supplier shall ensure that all materials for use in sub-surface stations are approved for use or have a valid concession in place for the specific use in accordance with LU Standard 1-085 'Fire safety performance of materials'.

36 Asbestos (non asbestos removal projects)

Prior to any works being undertaken the Supplier shall confirm the presence or absence of any asbestos and the status and condition of the proposed work locations with the Client representative and relevant Asbestos Control Unit. The Client shall provide full contact details of the Asbestos Control Units and information on relevant asbestos registers to the Supplier. The Supplier shall comply with LU or Tube Lines procedures for the management of any identified asbestos.

Where the Supplier believes that they have disturbed asbestos as a consequence of their works, they shall stop work immediately, and notify the Station Supervisor.

The Supplier shall keep records of any potential exposure to their employees.

37 Working in or near lifts and escalators

Suppliers shall comply with requirements set out in Rule Book 10 'Station access' and the following requirements

- 1) only carry out such works when they have a permit to enter issued by the Station Supervisor at the location;
- 2) only carry out works on lifts and escalators when the isolation has been agreed;

- 3) ensure that any of their personnel who apply for a permit possess a valid Lift and Escalator Machine Chamber Access Authority from the LU lift and escalator representative;
- 4) ensure that personnel who wish to work in, or access, a lift or escalator machine chamber, shall possess a lift and escalator machine chamber access pass. This pass shall be to a level commensurate with the nature of the activity to be carried out. For minor visits or inspections, non-certificated personnel can enter the chambers, providing that they are accompanied by someone who is certificated. No more than four persons shall accompany the individual with a pass at one time;
- 5) ensure that a Site Person in Charge (non track locations) is in attendance throughout;
- 6) ensure that, when electrical isolation is required, a warning sign is displayed on the electrical circuit breaker reading 'WARNING: MEN WORKING - DO NOT SWITCH ON'. The sign shall additionally have the current name and telephone number for the party in possession of the equipment;
- 7) ensure that the appropriate lock-off measures have been taken, i.e. removal and retention of the Castell interlock key (or application of a padlock);
- 8) ensure that the Site Person in Charge retains the Castell key;
- 9) use secure engineer's safety barriers to lift door openings and the top and bottom of escalators;
- 10) ensure that their personnel are not adjacent to unguarded moving machinery, unless they are specifically licensed to do so, and measures are introduced as the outcome of risk assessments which mitigate risks to ALARP;
- 11) remove all waste materials from the lift or escalator environment at the end of each shift;
- 12) only use lightweight metal ladders (Class 1) in the machine room;
- 13) ensure that, when work is finished, the Site Person in Charge completes section C of the Permit to Enter Form to certify that the machine is fit for service;
- 14) ensure that any person who certifies that a machine is fit for service holds a valid Safety Critical Licence covering the type of activity that has been undertaken;
- 15) ensure that, in the event of the works not being completed at the end of the shift, the Site Person in Charge completes section C of the Permit to Enter Form, informs the Station Supervisor of the reasons that the machine cannot be put into service, which is recorded in the station logbook;
- 16) not alter any structure or asset without prior written approval from the Client; and
- 17) ensure that all warning signs are approved by the Supplier's representative and clearly show the Supplier's name and 24 hour contact details.

38 Work on or adjacent to utilities and High Voltage cables (buried services)

The Supplier shall consider the presence of hidden High Voltage cables when planning works. The Supplier shall consult LU as early as possible to ascertain whether any electrical distribution cables or apparatus will be affected by the proposed works.

For High Voltage and Pilot cable records call 020 30548354 (Monday to Friday 09:00 to 17:00) or e-mail LULHVPOWERASSETS@tfl.gov.uk . For advice outside of office hours call the LU Shift Supply Engineer on 020 7027 6833 (Auto 145) (24 hours a day).

The supplier shall ensure work methods take account of hidden High Voltage cables. The supplier shall ensure all risk assessments consider such hazards and stipulate the controls required to prevent such hazards being realised. The Supplier shall make all necessary arrangements to safeguard the cables or apparatus. If you require advice regarding methods of work call 020 7918 2667 (Monday to Friday 09:00 to 17:00) or E-mail PlanningPower@tfl.gov.uk.

No construction activity may be carried out in proximity of any services unless prior permission has been given by the utility provider and the Client.

If you suspect you have damaged a High Voltage cable do not investigate but call the LU Shift Supply Engineer on emergency number **020 7240 1088 (Auto 945)**.

39 Working on or about the track

All Suppliers working on or about the track shall comply with the requirements in the following LU Rule Books: Rule Book 16 'Going on the track in Engineering Hours'; Rule Book 20 'Engineering staff - Traffic Hours protection' and Rule Book 21 'Personal safety on the track'. For work on station platforms, Suppliers shall also comply with Rule Book Support Document 'Working on a station platform'.

40 Access to electrical sub-stations, working equipment, relay and other secure rooms

When access to a sub-stations is required, the Supplier shall give 6 weeks written notice separately for each site. Access can only be granted to persons who have successfully complied with the Power Supplier Engineer's competency requirements.

Application for access must be made to the LU Power Planning Department (email: PlanningPower@tfl.gov.uk)

When access is required to designate rooms all personnel must have successfully completed the Equipment Room Awareness course, or be otherwise authorised by an appropriate authority after successful completion of other recognised training courses. Keys to these rooms are only issued in response to a specific need submitted in writing to the Client representative. The Client must approve details of the nature and duration of the work and the exact number and location of the workforce. No Supplier shall work in such rooms without authority to do so.

All equipment within such rooms must be protected by a dust-proof screening. The Client must approve the screening before any alteration work is carried out.

The Supplier shall not use such rooms as stores or workrooms.

41 Entering areas with gaseous fire suppression systems

Certain rooms (for example switch rooms, transformer rooms and relay rooms) on LU Premises are currently fitted with a gaseous fire protection system.

Entry into these rooms is not permitted without the Client's approval.

Some extinguished gases released within a confined space are hazardous to health under certain conditions.

42 Fire prevention

42.1 General requirements

Suppliers shall not:

- 1) dispose of waste or other materials by burning on any site;
- 2) take or store anywhere on the railway any cylinders of industrial or flammable gases and containers of flammable or volatile substances without the prior written permission of the Client and appropriate licence;
- 3) store extremely flammable materials (i.e. flashpoint below 0°C and DERV) under ground; and shall not store any flammable or highly flammable materials except where approved for use on the underground and under storage licence in the quantities and containers specified, and in conditions and locations specified under that licence. This clause does not apply to diesel stored within the fuel tank of a stabled rail vehicle.
- 4) use cookers, gas or petrol heaters and space heaters at below ground locations;
- 5) overload power sockets at any time or use any adapters in connection with electrical equipment and power outlet sockets;
- 6) relocate existing fire points;
- 7) obstruct existing fire points, call points, hydrants and extinguishers ensuring that they are available for operation at all times;
- 8) obstruct or obscure exits, signs and means of access, emergency stairs and doors;
- 9) use, or permit to be used, fire fighting equipment and appliances for any purpose other than fire fighting;
- 10) use or provide dry powder or halon extinguishers;
- 11) install temporary huts made from combustible materials in below ground locations;
- 12) use timber for any works in below ground locations without the prior approval of the Client;

- 13) use polythene or other combustible materials to wrap, encapsulate, or protect any packages, equipment or materials brought in and stored or installed in below ground locations;
- 14) store, or allow to accumulate, any flammable or combustible materials on site, except as authorised under the appropriate LU Standard;
- 15) obstruct, interfere with or remove existing fire plans (kept in secure boxes at station entrances, and sited for use by the local Fire Brigade).

Suppliers shall:

- 1) ensure that all personnel are fully aware of LU requirements in respect of fire prevention and protection;
- 2) take strict precautions to protect the site, any adjacent property and all persons from fire;
- 3) minimise the quantities of approved flammable materials temporarily stored under storage licence, which shall at all times be the minimum consistent with safety and construction requirements and never greater than the maximum allowed for that material under the licence;
- 4) remove immediately all empty drums, empty containers, surplus or waste material and used packing materials from operational premises and below ground locations at the end of each working shift;
- 5) minimise all fire risks, including mopping up spillages or absorbing them in sand or other suitable material which shall then be disposed of by the Supplier;
- 6) carry out a risk assessment of the site and arrange adequate fire safety training;
- 7) heat water using electric immersion-heaters;
- 8) use electric convection heaters for space-heating;
- 9) ensure that existing facilities at the site remain accessible;
- 10) request, via the Client representative, the isolation of fire detection equipment when any works may have an adverse impact on the equipment, e.g. smoke or dust, ensure that de-isolations are performed at the end of each period of Engineering Hours unless current exemptions are in place;
- 11) implement a system of hourly checks of the entire site in the event of such isolation being approved;
- 12) provide suitable and sufficient fire fighting equipment throughout the site when the output of a risk assessment indicates an increase in the risk of fire at any work site or when required to do so by the Client;
- 13) provide and maintain fire points in each work area and working level when the output of a risk assessment indicates an increase in the risk of fire at any work site or when required to do so by the Client. In all cases a fire point must be located within 20 metres of each work site;

- 14) ensure that all new extinguishers are painted red and have a coloured band to indicate their type, e.g. 9 litre Aqueous Film Forming Foam (AFFF) extinguisher will be red with a cream band;
- 15) ensure that periodic inspections of the Supplier's fire fighting equipment are undertaken by competent personnel;
- 16) where appropriate nominate person to act as Fire Watchpersons who must hold an LU Fire Watchperson certificate;
- 17) provide the Client representative with full information on moves and consequent changes, however minor, which may affect fire plans;
- 18) prepare emergency plans that reflect LU local arrangements;
- 19) satisfy the requirements of the Client, LU and the Fire Brigade and provide their representatives with the facilities to inspect the fire prevention arrangements on the site;
- 20) make such alterations and additions to the fire protection arrangements as the Client may reasonably require;
- 21) make information available on request to the Client and any other authority that requires it; and
- 22) make adequate provision for raising the alarm in case of fire.

42.2 Temporary fire points

Where identified as being required by either risk assessment or the Client, the fire point shall be constructed in a manner which is easily recognisable.

42.3 Timber

No timber shall be used in below ground locations unless approval is obtained through the Client. No softwood timber shall be stored in below ground locations. It shall be returned to the surface immediately it is not required.

Where the Supplier provides timber that has been treated with fire retardant materials, the Supplier shall, at the time of delivery, provide a copy of all relevant certificates of the fire retardant treatment and treated timber for approval by the Client. Timbers shall be readily identifiable and traceable by a treatment Supplier's stamp or other method approved by the Client.

42.4 Composites

The use of plastics, including polythene and glass fibre resins, shall be avoided. Material shall meet LU's requirements - LU Standard 1-085 'Fire safety performance of materials'. The LU Manual of Good Practice G-085 'Fire Safety of Materials and Fire Safety of Specific Items and Materials Used in the Underground' gives further guidance.

Materials delivered in plastic packaging shall be opened and the packaging removed from site immediately or, in the case of small quantities, by the end of the shift at the latest. The Supplier shall not leave such materials at the site after the end of the shift.

The Supplier shall fill rubbish bags and take these off site in one operation, and not stockpile the rubbish bags. Empty bags shall not be stored on site. Plastic materials shall not be used to form material storage compounds.

Where work has to be protected approved flame retardant non-plastic sheeting shall be used.

Plastic safety fencing shall not be used in areas accessible to the public.

Where it is used in other areas plastic safety fencing shall be checked regularly to ensure it remains properly erected and does not become a hazard in its own right.

Where any plastics are used, they shall be protected from any hot work or other fire hazardous work operations as described in clause 43 'Hot work and fire hazards'. The Supplier shall enforce, stringently, the working arrangements required by the permits.

42.5 Sheeting materials

Only approved materials shall be used on LU Premises below ground.

A list of approved Suppliers of such materials can be obtained from the Client representative.

42.6 Gas cylinders

42.6.1 Use of gas cylinders in below ground locations

Where cylinders are required to be used for cutting or welding purposes the Supplier shall ensure that a Hot Work Permit has been issued for the work site and that all requisite controls are in place.

All industrial gases may only be taken into below ground locations in the quantities permitted and shall be returned to the surface at the end of the work shift and stored as described in clause 42.6.2 'Storage of gas cylinders (above ground)'. Where shift working is continuous, the gases may be left below ground monitored by a Fire Watchperson at all times, provided that:

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- 1) the new shift starts no more than one hour after the end of the previous shift which used the gases;
- 2) hoses and cylinder keys are removed from the gas cylinders (and kept close to hand);
- 3) valves are fully closed;
- 4) all cylinders are properly supported and secured in the vertical position;
- 5) hoses are coiled and placed to ensure that they are protected from damage;
- 6) the Client is advised and approval obtained.

A sign at the LFEPa rendezvous point shall announce that gas is being used, the type of gas, and that the same notice is given to the Station Supervisor.

Suppliers shall remove gas cylinders when the public has access to the station.

Additionally, Suppliers shall not take gas cylinders onto the station in Traffic Hours.

42.6.2 Storage of gas cylinders (above ground)

The Supplier shall:

- 1) only store gas cylinders at ground level in a locations approved by the Client and in accordance with clause 42 'Storage';
- 2) not store them in a position that will cause an obstruction to passageways, passenger areas, ticket offices or staff accommodation, or be near any source of ignition;
- 3) ensure that cylinders are stored in locked cages, kept vertical and properly fixed and supported;
- 4) ensure that all hoses and cylinder keys are removed from cylinders and kept close to hand;
- 5) use cylinder trolleys for all movements of gas cylinders and all cylinders shall be secured to the cylinder trolley by either a suitable chain or strap;
- 6) provide signage at the entrance of premises when gas cylinders are being stored.

42.7 Flammable and highly flammable materials

42.7.1 Use of flammable and highly flammable materials below ground

Suppliers shall provide adequate ventilation if the Supplier's use of flammable substances and volatile materials creates any risk of heavy vapours in confined spaces and take other environmental issues into consideration.

Where flammable or highly flammable materials are required to be used below ground the Supplier shall ensure that approval is sought from the Client in line with LU Manual of Good practice G-085 'Fire Safety of Materials and Fire Safety of Specific Items and Materials used on the Underground' and a method statement is included with the application.

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42.7.2 Storage of flammable and highly flammable materials below ground

Flammable and highly flammable materials may be stored on LU Premises with permission, in limited quantities, in suitable sealed containers (as appropriate) or purpose built stores, or in portable storage bins in areas covered by sprinkler systems, or temporary stores controlled by storage licence. The following maximum quantities are allowed below ground:

- 1) Highly flammable: Flashpoint between 0°C and 21°C - 1 litre in 0.5 litre containers;
- 2) Flammable: Flashpoint between 21°C and 55°C - 69 litres in 25 litre containers.

Where the Supplier has to use such materials, and has approval to use them, it shall only use the minimum quantities needed to carry out the works satisfactorily.

43 Hot work and fire hazards

43.1 Hot work

Hot work shall be carried out as set out in the Rule Book Support Document 'Hot working'.

43.2 Reasonable notice of works

Suppliers shall submit applications for permits for hot working at least one week before the intended start date. This period of notice shall extend to two weeks where the isolation of fire detection or prevention equipment or exemptions is required.

In an emergency a lesser period of notice may be given provided that a contingency method statement has been approved by the LU or Tube Lines Fire Safety Manager to cover such eventualities.

43.3 Precautions

43.3.1 Buildings and Assets

The Supplier shall protect the fabric of the building, its assets and decorations with suitable non-combustible material and take every precaution to prevent damage by scorching or fire.

43.3.2 Gas cylinders

Hoses connected to gas cylinders shall be of the braided or armoured type to prevent damage and risk of gas leakage.

43.3.3 Gas detection

At work sites in below ground locations the Supplier shall provide and use suitable gas detection equipment in order to detect the possible presence of flammable gases prior to (and during) any hot work or other fire hazardous operation.

44 Storage

44.1 General requirements for storage

No Supplier or person shall store materials on LU Premises without the appropriate licence. A licence is obtainable through the Client representative. Information on applying and holding a storage licence are set out in Rule Book Support Document 'Applying for a storage licence'.

Suppliers shall:

- 1) ensure that all their storage locations are licensed in accordance with Rule Book Support Document 'Applying for a storage licence';
- 2) prominently display such licenses;
- 3) not store any material in a position where it could fall, slip, roll or be blown onto the track, railway equipment, public highway, platforms or walkways;
- 4) when storing cable drums on platforms Suppliers shall secure them with a chain and padlock within a hoarded area;
- 5) carry out a thorough safety inspection at the end of each shift and after use of the storage area to ensure that stored items are secure and compliant with the conditions of the storage licence;
- 6) comply with all legislation and relevant Environment Agency guidance notes in respect to oil, liquid and other potential pollutant storage;
- 7) store liquids in enclosures or trays to contain any spills or drips;
- 8) protect and store materials in such a way as to minimise unnecessary damage, wastage, spoiling of goods or environmental harm.

44.2 Trackside storage

Suppliers shall comply with LU Standard S1158 'Track - Inspection and Maintenance' which sets out LU's requirements for trackside storage.

44.3 Hazardous materials and substances

Suppliers shall not store any hazardous materials on stations except where allowed under the terms of a storage licence, in the quantities and containers specified, with a current storage licence and in conditions and locations specified under that licence. See also clauses 42.6.2 'Storage of gas cylinders (above ground)' and 40.7.2 'Storage of flammable and highly flammable materials below ground'.

44.4 Allocation of space on operational property

Storage may not be possible where storage has already been utilised by another Supplier. The requirements and process for obtaining space allocation is set out in LU Standard S1472 'Allocation of space on operational property'.

45 **Plant and equipment**

Suppliers shall obtain approval for the use of plant and equipment on LU Premises in accordance with S1172 On Track Machines – Design and Acceptance and S1173 On Track Plant – Design and Acceptance.

Suppliers shall comply with LU Standards S1023 'Infrastructure Protection' and S1050 'Civil Engineering - Common Requirements'.

Suppliers shall comply with cutting, grinding, drilling, fixing to and supporting from existing structures requirements in section 3.10 of LU Standard S1050 'Civil Engineering - Common Requirements'. Guidance on cutting, grinding, drilling, fixing to and supporting from existing structures is also contained in LU Manual of Good Practice G-050 'Civil Engineering - Common Requirements'.

46 **Clearance approvals**

No structure (temporary or permanent), plant, equipment or materials may be erected or stored within 3 metres of a running rail without first obtaining formal Clearance Approval.

The sole exception to this requirement is where the items concerned are only in place or use during Engineering Hours or a possession with adequate protection, which ensures that no trains or engineer's vehicles will run on the track adjacent to those items.

47 **Access equipment**

Where access equipment is being used on LU Premises, Suppliers shall gain prior approval from the relevant LU operational manager.

Suppliers shall state in their method statements what access equipment shall be used in the work package.

Suppliers shall also:

- 1) obtain approval from the Client prior to the erection of any scaffold;
- 2) not use scaffolding of any type adjacent to Network Rail's infrastructure;
- 3) ensure that scaffold adjacent to track and remaining in place during Traffic Hours is subject to LU Standard S1156 'Gauging and Clearances';
- 4) provide an assessment of any bearing materials or structure in accordance with LU Standard S1050 'Civil Engineering - Common Requirements';
- 5) ensure that trestles and scaffold do not rest directly on the track ballast, unless adequate tying is provided to prevent overturning;
- 6) insulate equipment from the low voltage that may be generated for signals and maintenance unless the Client directs otherwise;
- 7) only store fibreglass ladders which meet the requirements of LU Manual of Good Practice G-085 'Fire safety of materials and fire safety of specific items and materials used on the Underground';

- 8) clearly label all ladders to show that they are LU compliant; and
- 9) ensure that they are aware of LU structures which are restricted to 'pedestrian loading'.

48 Temporary works

All temporary works shall comply with the requirements set out in the LU Standard S106 Temporary works. Suppliers shall:

- 1) provide, maintain and remove on completion of the Contract all temporary works needed for the execution of the Contract;
- 2) submit detailed design drawings, calculations and specifications for all temporary works to the Client for acceptance;
- 3) ensure that designs are submitted at such times agreed with the Client;
- 4) design all temporary structures to carry the loads they are required to support;
- 5) modify the detailed design drawings, calculations and specifications for temporary works if required by the Client;
- 6) note that acceptance by the Client of the detailed drawings of temporary structures in no way relieves the Supplier of any responsibility under the Contract;
- 7) the duration of the work shall be agreed with the Client.

49 Temporary fences and hoardings

All site hoarding, fencing and barriers shall comply with the requirements in Standard S1027 Site Hoarding, Fencing and Barriers .

50 Temporary lighting and power suppliers

50.1 General requirements

The Supplier shall obtain approval from the Client for the design of lighting or other electrical installations where it is proposed to use LU's power supply. This is to allow the Client to check that the lighting will not cause any problems. The use of generators shall be approved by the Client.

50.2 Lighting in tunnels and shafts

The minimum standard for temporary lighting in tunnels and shafts is set out in LU Standard 1-066 'Lighting of London Underground Assets'.

51 Screening of lights and positioning

All lights or lasers provided by the Supplier shall be placed or screened so as not to cause any confusion with or interference with any signal lights on the railway or on any other railway or signal lights of any local or other authority. If directed, the Supplier shall take appropriate action, and replace them in positions approved by the Client. This approval shall not preclude the Client giving further directions about the replaced lights or lasers.

Temporary lighting festoons shall have cages around bulbs and if in exterior locations shall have correct IP rating.

Lights shall be angled and controlled so as to not interfere with adjacent properties and to minimise glow in the sky in line with LU standard 1-066 'Lighting of London Underground Assets'.

52 Environmental requirements

52.1 General environmental requirements

Suppliers shall:

- 1) Use good industry practice to minimise the environmental impact of all activities;
- 2) apply for all permits, agreements, consents and licences as required and abide by conditions within the permits, agreements, consents and licences. No work shall commence until all permits, agreements, consents and licences are obtained (refer to potential exception in Section 53 'Waste management'). A copy of the licences, agreements, consents and permits should be made available to the Client upon request;
- 3) in the event of a breach of permit, agreement, consent or licence conditions the Supplier's representative and regulatory body/bodies will be informed in accordance with Section 26 'Monitoring'.
- 4) exercise a duty of care and be liable for all claims, costs, expenses incurred directly or indirectly by any party as a result of any breaches of the applicable environmental laws;
- 5) employ competent Suppliers with proven environmental performance;

Site Investigations

- 1) ensure they are aware of all environmental conditions and hazards on site;
- 2) undertake investigations and evaluations at such a stage in the project that the implications of any findings can be incorporated into the design, program of works and method statements as necessary;

Mitigation and Process

- 1) appropriately mitigate impacts from the scheme on the environment;
- 2) submit to the Client and adhere to arrangements and/or method statements which outline and demonstrate how the supplier will manage environmental performance and impact;
- 3) notify the Client immediately of any changes to method statements or environmental arrangements which result in significant changes to the environmental risk profile;

Reporting

- 1) monitor and report on environmental performance in line with LU standard 1-566 'Monitoring Health, Safety and Environmental Performance'; and
- 2) make available to LU/Tube Lines upon request the results of any monitoring undertaken.

Suppliers shall record environmental incidents such as spillages, disturbance of invasive/protected species etc. through an appropriate incident reporting system.

52.2 Environmental nuisance

Suppliers shall:

- 1) ensure that best practical means are followed to control nuisances to LU, its customers and neighbours, derived from noise, smells, fumes, dust, smoke, light, vibration, air pollution, overspray from herbicides or pesticides, congestion and parking associated with the works;
- 2) inform neighbours of potential nuisances prior to commencing specific projects or major project works as agreed with the Client; and
- 3) establish a suitable system for dealing with customer queries and complaints that comply with LU requirements. Suppliers shall contact complainants within ten days or as agreed otherwise with the Client.

52.3 Water

Suppliers shall:

- 1) assess whether the site has the potential to suffer from water ingress. This shall include as a result of weather conditions, tidal conditions, and rising groundwater and ensure that mitigation measures are in place based upon the risk of water ingress;
- 2) identify where waterways, drains, springs, wetland habitats or water supplies may be intercepted, interfered with or cut through by the works, and outline in method statements and/or environmental arrangements suitable mitigation measures and actions to ensure functionality of these watercourses is not impeded. This shall include any requirements to notify, or receive permission from regulatory authorities or other bodies;
- 3) take all necessary precautions to prevent water being discharged from the site from entering the works of adjacent contracts or adjacent properties;
- 4) not make temporary or permanent connections to any water supply mains or wastewater networks without informing and receiving the necessary permission from the relevant authority;
- 5) be responsible for any necessary actions for the training, diverting, or conducting of open streams or drains intercepted by the works;
- 6) provide suitable measures to prevent water contamination from suspended solids, hydrocarbons etc;
- 7) provide, where necessary, temporary water courses, floodwalls, ditches, drains, pump sumps, pumping or other means that may be necessary to maintain the works free of water and record proposals; and
- 8) consider options for managing and reducing water use in accordance with LU Standard 1-068 'Station Mechanical Services, Utility Provision & Energy Management'.

52.4 Waste management

Suppliers shall:

- 1) be responsible for all waste materials generated by the works, as agreed by the Client (except where otherwise specified in the Contract); and
- 2) undertake their responsibilities under the Site Waste Management Regulations 2008 as required by legislation.

52.5 Noise and vibration

Suppliers shall:

- 1) undertake the necessary investigation to establish whether or not the construction works or the project deliverables have the potential to produce significant noise impacts in relation to the sensitivity of surrounding and working areas. This investigation shall include:
 - 2) liaison with the Client;
 - 3) an identification of the activities likely to produce levels of noise and vibration that exceed those set in British Standards; and
 - 4) an outline of any requirements to monitor noise and vibration levels during construction works required in respect to minimising damage to buildings and minimising complaints;
- 5) use a competent person to assess the work that is to be carried out to determine whether or not an application under Section 61 of the Control of Pollution Act 1974 is required;
- 6) where necessary, make an application under Section 61 of the Control of Pollution Act 1974 and work to the conditions therein. Where practical, work should not commence until applications made under Section 61 have been granted, unless agreed with the Client;
- 7) notify the Client of any changes, dispensations or variations being sought in respect to a Section 61 application; and
- 8) ensure that the environmental arrangements and/or method statements outline and demonstrate how noise and vibration will be managed for the project including:
 - identification of noisy activities;
 - duration of operating hours for individual activities;
 - mitigation measures to be employed to reduce noise and vibration levels and to minimise disturbance;
 - details of any proposed noise and vibration monitoring programmes; and
 - details of plant type, location and noise control methods.

52.6 Archaeology, historical interest and listed buildings

Suppliers shall:

- 1) undertake the necessary investigations to establish what archaeological, historical or listed features are in the affected area and whether or not the works have the potential to damage or affect these areas including interior features and any effects in respect of the character of such premises and shall include liaison with the Client; and
- 2) suspend all activities on the discovery of archaeological finds until the Client has been contacted and suitable measures have been taken to prevent damage to the remains unless the works are of a safety critical nature.

52.7 Wildlife and Habitats

Suppliers shall:

- 1) undertake assessments to establish whether tree protection orders, conservation areas, sites of importance to nature conservation, protected species, pest species etc. are present at the works location;
- 2) organise and programme construction activities to ensure that the impacts on any protected species or habitat are minimised in line with legislative or regulatory requirements;
- 3) preserve and protect all trees and plant species (excluding noxious or invasive species) where possible within the scope of the work;
- 4) not lop, fell, damage or cut roots of trees with Tree Protection Orders unless the safety of the railway is impeded or a permit has been obtained from the local authority;
- 5) replace any trees which are permitted to be cut down or are damaged by the supplier as part of the reinstatement works in accordance with British Standards and with consideration for the local environment and biodiversity;
- 6) minimise damage to mature trees within or in the vicinity of work sites by adopting the mitigation measures outlined in the environmental arrangements and/or method statements;
- 7) apply to the Local Authority or private owner to remove or trim any tree part located off the work site where practical; and
- 8) retain tree brushing and tree waste (non pest species only) on site for use as mulch wherever possible, appropriate and safe to do so.

52.8 Resource Use

Suppliers shall:

- 1) ensure that all systems which use electricity or gas are designed to conserve energy in accordance with LU Standard 1-068 'Station Mechanical Services, Utility Provision and Energy Management'; and
- 2) Consider the potential for using recycled materials and recycling resources/materials.

52.9 Pest control

Suppliers shall:

- 1) outline arrangements for how any noxious and invasive plants identified will be managed in accordance with industry Codes of Practice and LU Standard 1-165 'Landscaping and Vegetation';
- 2) submit details of the pesticide and herbicide type(s) to be used, outline the proposed quantities and detail the application methods; and
- 3) adequate provision shall be made so as to avoid the migration of pests from site and to mitigate against any other pest nuisance at the site.

52.10 Land and Water Pollution Prevention

Suppliers shall:

- 1) ensure that land or water pollution is prevented through managing all potential pollutants in accordance with Clause 42.1 'General requirements for storage'; and
- 2) in the event of causing land or water pollution, return the site to the condition it was prior to contamination or better.

53 Quality Requirements

53.1 Records

The Supplier shall maintain such records that are specified by the Client, and this shall include as a minimum:

- 1) details of any non-compliance against any LU Standard;
- 2) records of audits and site inspections;
- 3) records of the qualifications, competence and training of staff;
- 4) quality assurance inspections conducted (including the identity of the inspector concerned);
- 5) equipment test calibration and verification checks conducted (including the identity of the inspector or tester concerned);
- 6) process and manufacturing data relating to the Contract, including an audit trail for material or component identity, source and status;

- 7) any process, inspection or test activity so directed by special instructions or any Contract Quality Plan invoked by the Contract;
- 8) non-conforming service or product records;
- 9) records of all related incoming and outgoing certificates of conformity and associated release documentation;
- 10) records of tender and contract reviews;
- 11) the Supplier's policy with regard to quality.

53.2 Retention period

Records shall be retained by the Supplier for a minimum of seven years unless otherwise specified by the Client at contract award.

53.3 Availability of records for inspection

The Supplier shall make all such records available to LU and the Client within three working days of any such request.

53.4 Statistical process control, audit and inspection procedures

Where, for quality management purposes, statistical process control procedures, audit or inspection procedures are adopted, full details of the proposed procedures used on the Contract are to be submitted to the Client for approval prior to implementation.

53.5 General quality requirements

Suppliers shall:

1. appoint member(s) of their management team who, irrespective of other responsibilities, have defined authority that includes:
 - a) ensuring that a quality management system is implemented and maintained;
 - b) reporting to senior management on the performance of the quality management system, including needs for improvement;
 - c) ensuring awareness of customer requirements throughout the Supplier's organisation;
 - d) liaison with customers on matters relating to the Supplier's management system that result from auditing or non conformance;
2. ensure that during internal processing and final delivery of product or service to the intended destination that the identification, packaging, storage, preservation and handling do not affect conformity with product or service requirements;
3. not proceed past 'hold points' until all the specified activities have been satisfactorily completed and the related documentation is available and authorised;

4. following receipt of a rejection, take immediate action to inspect all stocks and work in order to assess risk and loss and advise the Client of the findings;
5. take preventative action to avoid a recurrence of the non conformities;
6. immediately inform the Client when the Supplier has reason to suspect non conformities with previously supplied products or services;
7. be responsible for ascertaining the cause of and responsibility for non conformance, and for taking suitable corrective action to prevent their recurrence;
8. document all corrective actions;
9. ensure that their supply chain work to correct practices including accepted documentation defining the techniques to be used, workmanship criteria, safety of others (including the public), health precautions, plant and equipment to be used and training and licensing requirements;
10. ensure that the works comply with any manufacturer's recommendations, instructions and guidelines, unless otherwise directed by the Client;
11. operate and maintain all plant, equipment and processes in accordance with the relevant manufacturer's or Supplier's specification or procedure, unless otherwise directed by the Client;
12. take all necessary steps to identify, recall, re-inspect and replace any equipment or parts which have been inspected using inspection, measuring or test equipment whose calibration is found to be defective or unknown;
13. store and protect inspection, measuring and test equipment and materials to prevent misuse, damage and deterioration; and
14. ensure that all equipment bears an identification of its calibration or maintenance status, in a manner that clearly indicates it is within the calibration or maintenance period.

53.6 Quality Plan

The Supplier shall:

- 1) complete and submit a Quality Plan with the tender if required by the Client for review and acceptance;
- 2) ensure that the Quality Plan demonstrates the Supplier's process control system as required for the Contract; and
- 3) maintain and periodically revise the Quality Plan and forward it in its amended form to the Client.

The format of the Quality Plan may be determined by the Client. The Quality Plan should be developed in line with BS ISO 10005:2005.

53.7 Testing and inspection

When required by the Client Suppliers shall:

- 1) demonstrate to the Client's satisfaction that acceptance sampling techniques are utilised and such sampling shall meet the requirements of BS 6001-1:1999/ISO2858: 1999; BS6001-2:1993/ISO2859:1985; BS6001-3: 2005 and BS6001-4:2005/ISO2859-5: 2005 'Sampling procedure for inspection by attributes';
- 2) identify which sampling plan it intends to apply to the Contract and forward it to the Client for approval;
- 3) reference the sampling once it has been approved in all relevant Contract Quality Plans submitted to the Client;
- 4) be prepared to revert to 100% inspection in such cases where the failure rate exceeds the level of acceptance identified within the sampling plan;
- 5) prepare for the approval of the Client an inspection and test plan which shall include such hold points agreed with the Client;
- 6) maintain sampling inspection records in accordance with the Client's requirements.

53.8 Certification of conformity

Suppliers shall:

1. provide (for the Client) certificates of conformity for services and products that include:
 - a) Supplier's name and location address;
 - b) Supplier's full company name and manufacturing address, if different to above;
 - c) employer's supplier rating system number;
 - d) unique certificate reference number and date of certificate;
 - e) details of valid third party approvals, applicable to the services or products provided and the establishment providing the services or products to the Client ;
 - f) the Client's contract reference and, if applicable, quality plan number;
 - g) full description and quantity of supplies, including specification, drawing number and issue numbers and British, EC or relevant standards applicable;
 - h) identification marks and serial numbers as appropriate;
 - i) details of authorised non conformities, Client concession or production permit references and a full statement of authorised deviations, operations or processes not conducted;
 - j) for all materials (raw or finished):
 - i. cast and/or batch number(s);
 - ii. test report reference and, if called for, copies of test results and additionally for metallic materials;
 - iii. the condition of the material despatched;

- iv. recommended heat treatment if the material is being delivered not in a final use condition;
 - v. chemical analysis and/or mechanical testing certificates;
 - vi. inspection stamp and/or authorising signature;
 - vii. details of packaging and transportation where appropriate;
 - viii. country of origin (EC requirement);
1. ensure that all certificates include one of the following statements of conformity signed by an authorised signatory, on behalf of the Supplier:
 - a) for supplies from a manufacturer, the format shall be 'Certified that the whole of the supplies detailed hereon have been inspected and tested, and (unless otherwise stated) conform in all respects with the requirements of the Contract';
 - b) for supplies from an agent, stockist or distributor (i.e. where the Supplier is not the manufacturer) the format shall be 'Certified that the whole of the supplies detailed hereon have been inspected and tested and (unless otherwise stated) conform in all respects with the requirements of the Contract';
 - c) for services the format shall be 'Certified that the services detailed hereon have been inspected and tested, and (unless otherwise stated) conform in all respects with the requirements of the Contract';
 2. provide a copy of the Supplier's authorised signatory list, showing as a minimum, name, job title, signature, designated authority level at the commencement of the Contract;
 3. ensure that any certification from sub-contractors for parts or services related to the Contract accompanies the Supplier's certificate of conformity;
 4. agree with the Client a certificate of conformance for use where projects or part projects are handed over;
 5. include in the certificate of conformance a 'Statement of design performance' where design work is provided;
 6. provide statutory test certificates where applicable.

53.9 Quarantine

Suppliers shall provide secure quarantine storage for the storage of materials and products that are the subject of investigation regarding their conformance, or non-conformance.

53.10 Traceability

The Supplier shall ensure that all the materials to be incorporated into works delivered to site are controlled at installation and are able to be traced to manufacturer, unless indicated otherwise by the Client.

53.11 Maintenance and servicing

Suppliers that maintain or service LU assets shall provide the Client with written details of how their arrangements for maintenance and servicing will ensure the reliability, maintainability, durability and serviceability of the asset.

53.12 Design

No person shall change the design of any engineering or training system for the installation, operation and maintenance of infrastructure equipment without complying with LU Standard 1-538 'Assurance.

Suppliers shall:

1. operate a change control system so that the appropriate issue of drawings, technical specifications, training material and current deviations and concessions including customer supplied standards can be readily determined at all times;
2. ensure that all design changes and modifications are identified, documented, reviewed and approved by authorised personnel before their implementation;
3. record the results of all design assessments and hand over such records to the Client;
4. appoint or nominate a design authority for each design;
5. ensure that designers hold BS-EN-ISO-9001 certification relevant to the scope of work or, if the design Supplier is not certificated to BS-EN-ISO 9001, a documented management system which includes design shall be required, which would satisfy the requirements of the standard.

53.13 Computer aided design

Suppliers shall provide computer aided designs in a style, format and software specified by the Client.

53.14 Asset commissioning and handover

No project shall be considered complete unless the Client is in possession of the information deliverables specified in contract documents. Using the Additional Contract Document Requirement list is optional (see attachment 2). Documents may be identified in other parts or sections of a particular Contract.

54 Additional information

54.1 Supporting information – QUENSH Contract Menu

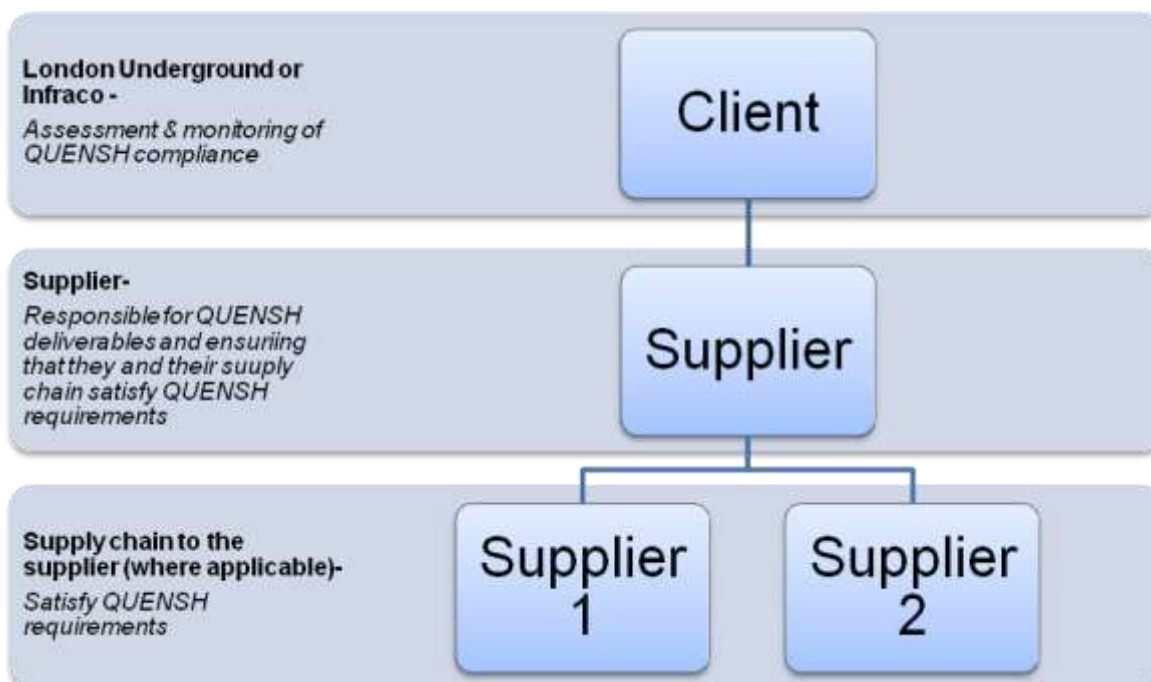
The Contract Menu (form [F0780](#)) can be found in the Management System library.

54.2 Attachment 1: QUENSH duty holder relationship

The LU QUENSH Contact Conditions place responsibilities on two distinct parties:

- The Client;
- The Supplier;

The diagram below explains how information should flow between each party and outlines their primary responsibilities as defined by the QUENSH Contract Conditions.



54.3 Attachment 2: Additional contract document requirement list

Contract QUENSH Conditions

Additional contract document requirements list

Contract no: _____
Contract title: _____
Supplier: _____



Instructions

1. The Supplier shall ensure the initiation, production, review, approval and timely submission and update of the documents highlighted in the attached list and as subsequently advised by the Client.
2. Documents shall be in the format, size and quantity specified unless otherwise agreed with the Client.
3. Documents highlighted (Y / N) for inclusion in Contract Data Dossiers shall be collated, compiled, indexed and filed into Contract Data Dossiers ready for submission at completion of works in accordance with this list.
4. Refer to the following key for clarification:
FORMAT
 - i) HC Hard Copy
 - ii) HCLB Hard Copy (laminated and bound)
 - iii) MDC Magnetic Disk Copy (3.5" diskette)
 - iv) CD CD-ROM
5. All documents, drawings, sketches and certificates shall be sent direct to the Client under cover of an approved document transmittal note.
6. Laminated and bound copies will only be required at document handover stage. Hard copy of all interim drawings, sketches, etc is acceptable.
7. All documents laminated and bound for handover purposes will require an unbound duplicate for copying purposes.
8. All documents shall contain, as a minimum, the following information:
 - i) unique number;
 - ii) title;
 - iii) revision number;
 - iv) page number, document number, and revision number on every page;
 - v) authorisation signatures where appropriate.

Prepared by: _____

Signature: _____

Position: _____

Date: _____

Approved by: _____

Signature: _____

Position: _____

Date: _____

DESCRIPTIONS	Document No:	REQUIREMENTS					Page of	
	Revision:	REQUIRED (Y / N)	NO.	FORMAT	SIZE	SUBMISSION SCHEDULING	INCLUSION ALSO IN DATA DOSSIERS (Y / N)	NOTES
	Date:							
GENERIC TYPE	CATEGORY							
1. SPECIFICATIONS	1.1 DESIGN-PRELIMINARY/FINAL							
	1.2 MATERIALS/EQUIPMENT							
	1.3 PRODUCTION							
	1.4 DESPATCH							
	1.5 METHOD STATEMENT							
	1.6 INSPECTION & TEST							
	1.7 COMMISSIONING							
	1.8 MAINTENANCE							
2. DRAWINGS	2.1 CONCEPTUAL DESIGN							
	2.2 GENERAL ARRANGEMENTS ELECTRICAL & MECHANICAL							
	2.3 SUB-ASSEMBLY							
	2.4 DETAIL/COMPONENT PARTS/ SUB-ASSEMBLY AS BUILT							
	2.5 INTERFACES							
	2.6 BUILDERS WORKS							
	2.7 LOCATION PLANS							
	2.8 SCHEMATICS							
	2.9 ELECTRICAL DATA							
3. CALCULATIONS	3.1 DESIGN							

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DESCRIPTIONS	Document No:	REQUIREMENTS					Page of	
	Revision:	REQUIRED (Y / N)	NO.	FORMAT	SIZE	SUBMISSION SCHEDULING	INCLUSION ALSO IN DATA DOSSIERS (Y / N)	NOTES
	Date:							
GENERIC TYPE	CATEGORY							
4. WORK INSTRUCTIONS MANUAL	4.1 PRODUCTION/ASSEMBLY/ SERVICING							
	4.2 DESPATCH							
	4.3 INSTALLATION METHOD STATEMENTS							
	4.4 INSPECTION & TEST METHOD STATEMENT							
	4.5 COMMISSIONING							
	4.6 OPERATION							
	4.7 MAINTENANCE							
5. CERTIFICATION/ VALIDATION	5.1 MATERIAL							
	5.2 SOFTWARE SOURCE CODE TEXT SCRIPT INTEGRATION TESTING DOCUMENTATION							
	5.3 INSPECTION, MEASUREMENT & TEST EQUIPMENT/ CALIBRATION							
	5.4 INSPECTION & TEST RESULTS							
	5.5 TRAINING PLAN/ DOCUMENTATION							
	5.6 APPROVED AUTHORITY AND SIGNATORY LIST							
	5.7 COMMISSIONING							

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DESCRIPTIONS	Document No:	REQUIREMENTS					Page of	
	Revision:	REQUIRED (Y / N)	NO.	FORMAT	SIZE	SUBMISSION SCHEDULING	INCLUSION ALSO IN DATA DOSSIERS (Y / N)	NOTES
	Date:							
GENERIC TYPE	CATEGORY							
6. QUALITY	6.1 QUALITY MANUAL							
	6.2 QUALITY PLAN							
	6.3 AUDIT REPORTS							
	6.4 AUDIT SCHEDULE							
	6.5 APPLICATION FOR CONCESSION							
	6.6 CERTIFICATES OF CONFORMITY							
	6.7 PRESSURE VESSEL TEST CERTIFICATE							
	6.8 INSPECTION, TESTS, MEASUREMENT PLAN							
	6.9 SAMPLING INSPECTION PLAN							
7. OTHERS	7.1 TECHNICAL QUERY							
	7.2 CONTRACT SUBMISSIONS LOG							
	7.3 SCHEDULE OF SUB- CONTRACTORS/SUPPLIERS							
	7.4 CONTRACT DATA DOSSIERS							
	7.5 DELIVERY PROGRAMME							

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55 References

55.1 References

55.1.1 Statutory documents

Document no.	Title
	Transport and Works Act 1992
	Control of Pollution Act 1974 - Section 61

55.1.2 British Standards

Document no.	Title
BS ISO 10005:2005	Quality management systems. Guidelines for quality plans
BS 6001-1:1999	Sampling procedures for inspection by attributes. Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection
BS 6001-2:1993, ISO 2859-2:1985	Sampling procedures for inspection by attributes. Specification for sampling plans indexed by limiting quality (LQ) for isolated lot inspection
BS6001-3: 2005	Sampling procedures for inspection by attributes. Specification for skip-lot sampling procedures
BS 6001-4:2005, ISO 2859-5:2005	Sampling procedures for inspection by attributes. System of sequential sampling plans indexed by acceptance quality limit (AQL) for lot-by-lot inspection
BS EN ISO 9001:2008	Quality Management System

55.1.3 LU company documents

Document no.	Title
S1548	Safety Critical Work
S1483	High visibility clothing for going on or near the track
S1251	Alcohol and work
S1257	Drugs and work
S1538	Assurance
S1556	Incident Reporting and Investigation
S1193	Electromagnetic Compatibility (EMC) with LU Signalling System Assets
S1158	Track - Inspection and Maintenance
S1092	Escalator and passenger conveyors'
S1093	Lifts including Firefighter and Evacuation Lifts
1-085	Fire safety performance of materials
G-085	Manual of Good Practice Fire Safety of Materials and Fire Safety of Specific Items and Materials Used in the Underground
S1472	Allocation of space on operational property
S1023	Infrastructure Protection
S1050	Civil Engineering - Common Requirements
G050	Manual of Good Practice - Civil Engineering - Common Requirements
S1156	Gauging and Clearances
S1027	Site Hoarding, Fencing and Barriers
1-066	Lighting of London Underground Assets
1-068	Station Mechanical Services, Utility Provision & Energy Management
1-165	Landscaping and Vegetation
S106	Temporary works

55.1.4 Other

Document no.	Title
Rule Book 9	Lifts, escalators and moving walkways
Rule Book 10	Station Access
Rule Book 14	Possession planning and management
Rule Book 15	Possession protection methods
Rule Book 16	Going on the track in Engineering Hours
Rule Book 20	Engineering staff - Traffic Hours protection
Rule Book 21	Personal safety on the track

55.2 Abbreviations

The following topic-specific definitions are created:

- a. within London Underground's Glossary of Terms (a Category 1 Standard, No.1-622);
- b. from published sources that are clearly identified.

Abbreviation	Definition	Source
AFFF	Aqueous Film Forming Foam	a
ALARP	As Low As Reasonably Practicable	a
ARF	Access Request Form	a
CIRAS	Confidential Incident Reporting and Analysis System	a
DAMSP	Drugs Alcohol Medical Screening Programme	a
FRC	Fault Reporting Centre	a
HSE	Health and Safety Executive	a
HV	High Voltage	a
ITT	Invitation to Tender	a
LFEP	London Fire and Emergency Planning Authority	a
LU	London Underground	a
PFI	Private Finance Initiative	a
PICER	Person in Charge Evacuation Register	a
PPE	Personal Protective Equipment	a
PPP	Public Private Partnership	a
QUENSH	Quality, Environment, Safety, Health	a
SABRE	Site Access Booking for Railway Engineering	a
SQE	Safety, Quality and Environment	a
SWP	Station Works Plan	a
TAC	Track Access Controller	a

55.3 Definitions

The following topic-specific definitions are created:

- a. within London Underground's Glossary of Terms (a Category 1 Standard, No.1-622);
- b. from published sources that are clearly identified.

Term	Definition	Source
Client	For QUENSH, the party procuring goods, services or works. This includes London Underground (including Nominee Companies) and Tube Lines.	a
Closure	Any planned disruptive works which result in those Facilities which are required under Schedule 2.1 (Service Outputs) of the PPP Contracts not being Available in accordance with the Access Code which is either a Major Closure, a Minor Closure, a CTRL Closure or an L&E Closure	a
Emergency Plan	A document setting out a planned and co-ordinated response to a sudden hazardous occurrence or danger, which requires immediate action.	a
Engineering Hours	Is the period of time between <ul style="list-style-type: none"> • the published time, or actual time if later, traction current is switched off and <ul style="list-style-type: none"> • the published time, or amended time if earlier, traction current is switched on. Engineering hours cannot be extended.	a
General Access (Request)	A request for access by an Access Party on behalf of itself or other third parties to such parts of the LU Network for the performance of repetitive, routine and non-disruptive activities on the LU Network during Traffic Hours and/or Engineering Hours.	a
LU Operational Property	All land and structures within the boundary of the railway including track, sidings, depots, car parks, forecourts and maintenance facilities, bridges and any other structures forming part of the railway undertaking	a
LU Premises	The operational railway including signal cabins, depots and sidings.	a

Term	Definition	Source
Operational Assurance	The process by which Area Group Station Managers or Train Operations Managers acknowledge that they are able to safely operate the station or train service during and/or following any proposed works.	a
Possession	A designated section of track where a Possession Master has control. Unauthorised train movements into the section are prevented by the arrangements shown in the possessions standards.	a
Possession Master	A person certificated by LU to take control and give up a possession, in order to carry out engineering and similar work.	a
Protecting Workers on the Track	A person certificated by LU to safely manage worksites and provide protection for themselves and others in engineering hours, traffic hours, depots and possession worksites. The Protecting Workers on the Track certificate will be endorsed with the relevant activity.	a
Protection	Procedures to make sure the staff on the track are not endangered by a moving train or mechanised vehicle.	a
Protection Master	A person certificated by LU to provide protection for himself and others on or about the track during: traffic hours, engineering hours. The Protection Master's certificate will be endorsed to show traffic hours or engineering hours or both.	a
Safety Critical Activities	Activities which, if they are undertaken incorrectly, have the potential to increase overall risk on or about the business.	a
Section 12 Station	Section 12 Station means a Station to which The Fire Precautions (Sub-Surface Railway Stations) Regulations 1989 or any other relevant regulations made under section 12 of the Fire Precautions Act 1971 apply.	a
Site Access Booking for Railway Engineering (SABRE)	A computer system that is used to book, clash check and approve all planned work to be carried out on the London Underground network. The system generates a unique 7-digit number. An approved SABRE Number is evidence that the planned work has LU or Tube Lines approval and is compatible with any other works on the site.	a

Term	Definition	Source
Site Person in Charge	The designated person on site (both on and off the track) accountable for: the work in progress; discipline; programme of work; plant; materials; general health and safety. The Site Person in Charge - Safety on the Track's certificate will be endorsed to show traffic hours, engineering hours or depots, or any combination of these.	a
Station Supervisor	A member of LU operating staff normally in charge of a station or a group of stations.	a
Sub-contractor	Parties appointed by a Supplier.	a
Supplier	For QUENSH, the primary organisation or individual that is selected to deliver a product, service or facility to the Client. This may include consultants, contractors and PFI Contractors and excludes organisations or individuals selected by and contracting directly to them.	a
Track Access Controller	A person licensed by LU to control the Line Clear and Line Safe Procedures.	a
Traffic Hours	The period between the published time or: amended time, if earlier, traction current is switched on and actual time, if later, traction current is switched off.	a

55.4 Person accountable for the document

Person accountable for the document
James Terry - Head of HS&E Capital Programmes Directorate

55.5 Document history

Edition	Date	Changes	Author
2-05104-421 R5	Sept 2003	First draft for PSC process.	MG
2-05104-421 R6	Jan 2004	Second draft for PSC process.	MG
2-05104-421 V12	Feb 2004	Approved for issue.	MG
12c	Mar 2006	References included to new Track Standards.	CB
A13 draft 2	December 2009	Review to remove duplication and inconsistencies and to remove DER role, replacing with new roles.	JJ
1-552 A13	March 2010	Approved for issue	JJ
S1552 A14	February 2013	As per DRACCT No. 01476 1-552 A13 was renumbered, reformatted and revised to incorporate Written Notices. Minor change to menu to place LU and Suppliers identification of applicable clauses side by side to enhance ease of review. No changes to requirements beyond those previously communicated in written notices.	Catherine Behan
S1552 A15	October 2013	Updated to reflect the changes made to the QUENSH Contract Menu F0780 as per DRACCT No. 02138. This change was to improve the layout of the current QUENSH menu, to blank out the selection of headers in order to simplify the process involved in completing the form.	Dan Eyob

Edition	Date	Changes	Author
S1552 A16	November 2014	<p>Clauses 14.5, 15 and 38 revised to incorporate Written Notices.</p> <p>Sections 13, 14, 16-18, 20-22, 34 & 55.3 have been updated. These updates reflect the changes in protection licensing, the new access processes and remove any references to the Access Code. The Access Code will be withdrawn completely and replaced by the Access Charter Spring 2015 (1st April 2015).</p> <p>Cause 24 – amended to include provision for support following traumatic events as recommended by an incident investigation.</p> <p>Clause 42.1 and 42.2 amended to permit fire fighting arrangements to be determined by risk assessment.</p> <p>Clause 45 revised to include references to the relevant machine approval standards. The Quensh Contract Menu removed and stored as a separate form F0780 in the Management System library</p>	Catherine Behan

Edition	Date	Changes	Author
S1552 A17	August 2015	<ul style="list-style-type: none"> - Reformatted, - revised to incorporate Written Notice (LU-WN-01313) - All temporary works shall comply with the requirements set out in LU Standard S1062 Temporary Works - Section 13 - Remove Protection workers on the track - 16.3 - Protecting workers on the track activity - Section 14.3.3 Remove various reference to Protecting workers on the track - 22.4 The heading needs to change to "This need to change to" Person providing protection" - Definition - Include Protecting Workers on the Track A person certificated by LU to safely manage worksites and provide protection for themselves and others in engineering hours, traffic hours, depots and possession worksites. The Protecting Workers on the Track certificate will be endorsed with the relevant activity. - Section 44 include revised Plant standards - 35 Conveyance of loads 	Erica Huntley