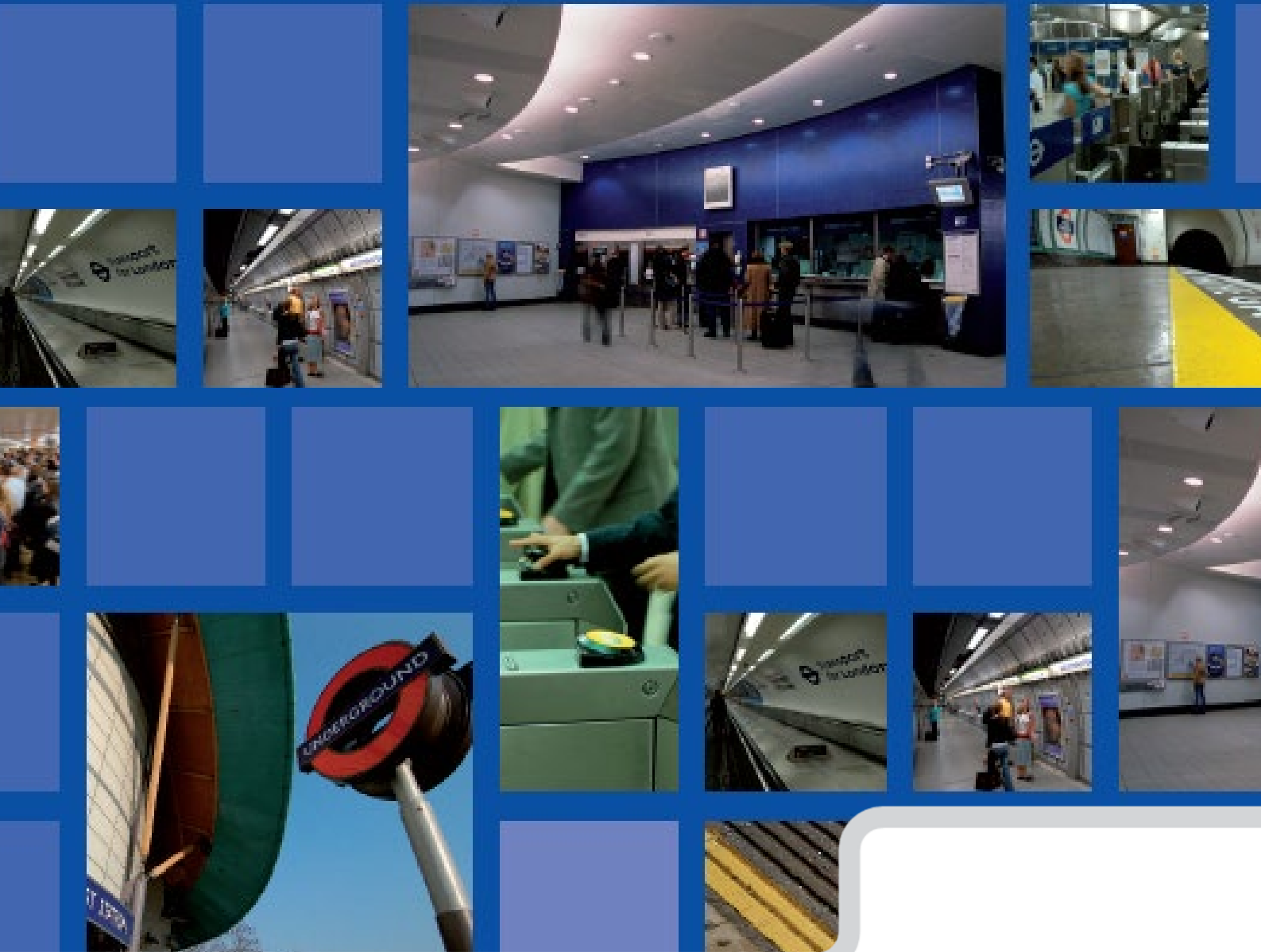


London Underground

Worksite Safety Induction
pre-assessment learning booklet



EVERY JOURNEY MATTERS

Document history

Approval of document

Owner/s of document: Sean Allison - Senior Programme Manager

Tom Carter – Access Capability Manager

Issue number	Date	Reason for change	Author	Revision / Review date
VI.0	March 2022	First release of booklet version for LU WSI – to be used where eLearning content is inaccessible	T Carter	Jan 2023 – Inline with eLearning content.
VI.1	Dec 2022	Addition of Track definitions based on LU SHE FIR outcome	T Carter	June 2023 – other content reviewed along with SHE changes

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Introduction

This learning booklet is for those not directly employed by London Underground with a need to work on LU infrastructure.

Prerequisite material

You must read and take in the information in this learning material to prepare you for the LU worksite safety induction assessment. Please ensure that you've adequately prepared yourself to take the assessment. Once you've completed the pre-learning, you'll be able to book onto the assessment.

Aim of this learning

The aim of this learning is to provide you with:

- Overview of the access arrangements for working on London Underground (LU) infrastructure
- Understanding of how to stay safe in the railway environment

Assessment

You'll be assessed on the knowledge you've gained by reading this learning information. The assessment is computer based and made up of 20 multiple-choice questions. To achieve the required standard in the assessment you must answer at least 16 questions correctly out of 20. You're allowed 45 minutes for the assessment.

Achievement

Once you have achieved the required standard in the assessment, your Sentinel card will be validated to include 'ICI plus an LU endorsement'.

Support and advice

If you require any support, you should email:

sentinel@tfl.gov.uk

Your question or query will be answered within 24 hours (excluding weekends and public holidays).

Documentation

London Underground rules

LU has rules and procedures in place for your health and safety.

The rules for working on LU infrastructure are contained in LU Rule Books 1 to 23 and supporting documents. The rules are mandatory and must be complied with at all times.

Certification

When working on LU infrastructure you must have the correct certification for the activity you will be carrying out, for example to work on the track with trains moving under protection, you would need to have a track certificate endorsed basic track awareness or track accustomed.

There may be several other certification/licence/qualification requirements that you need to work on LU infrastructure, for example:

- First aid
- Manual handling
- Small plant
- Power tools
- Welding

You may also need documentation that is relevant for your certificate to be valid, for example type training for a piece of equipment that you may use. Any certification and associated licences should be carried with you at all times when working on LU infrastructure.

Health, Safety and Environment bulletins

Health, Safety and Environment bulletins are issued to alert you of any issues relating to health, safety and the environment in the workplace. Any bulletin relevant to the specific work activity you are involved in will form part of the pre-work safety briefing.

When you complete this course, you will be sent a 'Health and Safety essentials welcome email'. In this, there will be links to additional eLearning and to a library hosting all safety bulletins.

Method statement and risk assessment

The site person in charge will have a method statement that describes how the work will be done. Risk assessments will identify any risks that can affect health, safety and the environment.

All work requires a method statement and risk assessment to be in place.

Before you start work, you'll be briefed by the site person in charge on what you're going to be doing, any hazards associated with the work activities and how to keep yourself safe from these hazards.

- Remember - you must tell the site person in charge if you don't receive or understand the briefing.

Personal responsibility

Personal Protective Equipment



Example PPE

Approved Personal Protective Equipment (PPE) must be worn at all times when working on LU infrastructure. PPE can consist of some or all of the following:

- High visibility garments
- Hard hat
- Protective footwear
- Gloves
- Ear defenders
- Protective glasses
- Dust mask

PPE must be in good condition and worn as stated in the method statement.

Drugs and alcohol

In order to start work with a zero-alcohol level, you should not consume any alcohol at all in the 8 hours before starting work and, in the 16 hours prior to that, you should not consume more than 7 units of alcohol.

A unit of alcohol is (as a general guide only) half a pint of normal strength beer, a single measure of spirits or one glass of wine. If required, you must undertake a drugs and alcohol test. Random tests can be carried out at any time. If you refuse to be tested, you will be deemed to have provided a positive sample.

It is an offence to work under the influence of drugs or alcohol on LU infrastructure and may lead to prosecution. If you are taking medication you must always report it to your line manager or the site person in charge before the start of your shift.

- Remember - many over the counter drugs can cause drowsiness, which can affect your ability to work. Always read the label and follow the advice given.

Fatigue management

If your work schedule is not managed it can have a negative effect on your physical and mental well-being. You must inform your line manager or the site person in charge if you are aware that you have a medical condition that could make you more liable to fatigue at work. When you book on for work, you are declaring that you are fit for duty. If you believe fatigue is, or may become an issue you should raise this with your line manager or the site person in charge as soon as possible.

Restricted items

There are some items that can contribute to accidents and incidents, therefore the following items are restricted:

- Radios
- Personal audio devices
- Mobile phones with earpieces
- The use of metal ladders (including towers) near live track

Serious and imminent danger

If you believe that you are in serious or imminent danger, you must stop work, move to a place of safety and report the incident to the site person in charge. You should not resume work until action has been taken to address the incident.

Reporting incidents and near misses

A near miss is an incident which could have caused harm, loss or damage, but did not on this occasion. An incident should be reported as soon as possible through the appropriate incident reporting process. If there is a near miss in a worksite the incident must be reported to the site person in charge.

To report incidents and near misses by phone, you need to call 0800 092 5995 or auto number 1558.

The online e-form to report incidents, is not affected.

Confidential Incident Reporting Analysis Service



The Confidential Incident Reporting Analysis Service (CIRAS) is a reporting function which gives you the option to report safety issues when you are unable to report them in the normal way.

This system:

- Is strictly confidential and
- Is independent of LU
- Ensures that a response to the issue is provided

We encourage everyone to register with CIRAS - using the sign-up option on their website. You can do this using your work or personal email address.

CIRAS can be contacted on:

Phone: 08004101101

Text: 07507285887

Track and station equipment

Care should be taken when you meet track or station equipment. For example:

- Cables
- Signalling equipment
- Aerials
- Antennas
- Cameras

Any damage to track or station equipment must be reported to the site person in charge.



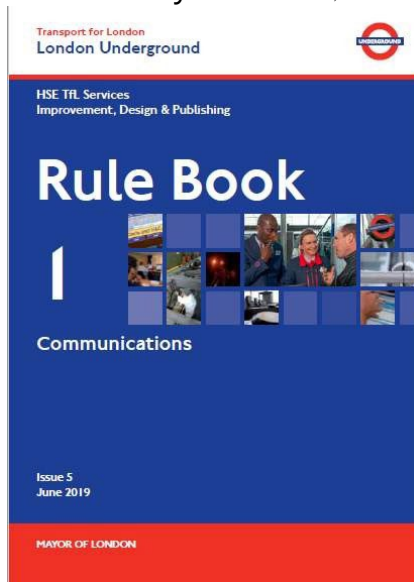
It's the overall responsibility of your employer/line manager to provide you with the necessary information and key safety training. This will support you with your specific role & responsibilities when working for or on behalf of London Underground.

You'll receive links to further useful training after completing the worksite safety induction.

Communication

Operational communication is key to how we function safely as an organisation. Rule book 1 focuses on all aspects of communication. There's a link to Rule Book 1 under the front cover image below.

Operational communications set out the protocols and responsibilities for effective and efficient communication. Feel free to explore Rule Book 1 further if you want; we will focus on the key points here and now.



Operational Communications information has been taken from Rule Book 1

When communicating safety critical information, you must communicate clearly so that any message you are giving is understood. When giving a message make sure:

- You plan what you are going to say
- You use the phonetic alphabet
- You are talking to the right person, and that person knows who you are
- Your message is:
 - Accurate
 - Brief
 - Clear and
 - Professional
- You understand the information and any action that is required
- That you know how to make contact again (if required)
- You record any details in a logbook or your notebook (where applicable)
- You repeat back any message you are given

You should start your message by:

- Stating who you are

- Asking who you are talking to
- Stating where you are
- Stating why you are calling

Phonetic alphabet

The phonetic alphabet is used to identify letters of the alphabet to spell words and place names that are difficult to pronounce.

A - Alpha	J - Juliet	T - Tango
B - Bravo	K - Kilo	U - Uniform
C - Charlie	L - Lima	V - Victor
D - Delta	M - Mike	W - Whiskey
E - Echo	N - November	X - X-ray
F - Foxtrot	O -Oscar	Y - Yankee
G - Golf	P - Papa	Z - Zulu
H - Hotel	Q - Quebec	
I - India	S -.Sierra	

Using numbers

If you are using numbers 10 and over in your message, you must say them one at a time. For example, 'Train 123' must be spoken as 'Train one two three' not 'Train one hundred and twenty-three'.

You must also say the number '0' as 'zero'. You do not need to quote numbers separately when you refer to time, for example, the time 13.17 should be stated as 'thirteen seventeen'.

Locations

Work locations

You may have to work in the following areas depending on the activity you will be carrying out:



Example of a worksite on a station platform

Stations

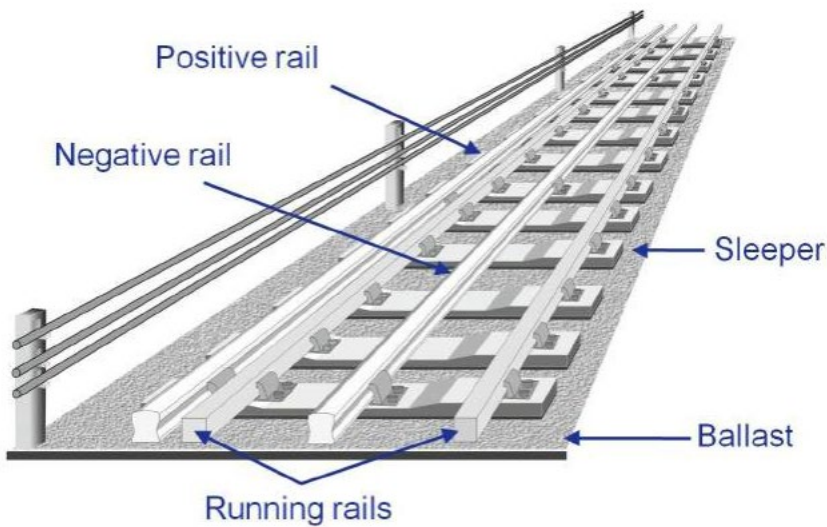
You can work at a station providing the proposed work has been approved and does not cause inconvenience or risk to customers.

Platforms

You can work on a platform providing the work has been pre-planned and approved.

i If you are working on a station platform you must consider that trains are running and traction current is on.

Track location



Example of track components

Track

You can work on the track when trains are running and traction current is on providing you are correctly certificated and protection is in place.

i Remember ... you must not step on any rail. The safest place to walk when on the track is in the cess whenever possible.

You are on or near the track, if you are:

- within two metres of any rail
- on the permanent way
- on a platform end ramp

You are not on or near the track, if you are:

- on a station platform
- in an area guarded by a physical barrier

i The level part of a platform which is separated from the public area by a barrier, despite not being for public use is part of the platform and not part of the track.

Depots

You can work in a depot providing you have the correct certification.

Signing in at LU premises



Example of a Staff Assembly Point indicator

You must always sign in when entering LU premises, this is:

- To allow you entry on to LU infrastructure
- So that you can be located in the event of an evacuation

When signing in you must ensure you:

- Sign the visitors' book and/or the Person in Charge Evacuation Register (PICER)
- Obtain a visitors' pass or sticker (which must be worn at all times)
- Are aware of where the Staff Assembly Point (SAP) is located, and
- The emergency procedures for that location

If you have to access a station that is unstaffed or closed, you will have to make the necessary arrangements to get signed in and collect any keys for the relevant location. If you are working in a depot you must sign in at the gatehouse, and report to the duty depot manager's office.

Signing out of LU premises

When you have finished work you must sign out and return your visitors pass. If you do not sign out of the visitors' book and/or the PICER, it will show you as still on the premises.

You must not sign out on behalf of a colleague.

Heathrow Express and London Overground

Your line manager must brief you on the safety procedures before working in these areas.

Roles and responsibilities

When working on LU infrastructure you may come in to contact with –

A customer service supervisor/manager (CSS/CSM) who is responsible for:

- Managing the station
- Signing people in and out of a station
- Evacuating people from the station in the event of a fire or other emergency

A Site Person in Charge of the work (SPC) who is accountable for:

- Ensuring there is a safe system of work
- The work in progress and the programme of work
- The discipline of the workgroup
- Briefing the workgroup
- Signing in and out with the station supervisor
- Checking certification of the workgroup
- Plant and materials
- General health and safety
- Liaising with the station supervisor, depot duty manager and the person providing protection



Example of an armband worn by a site person in charge of the work

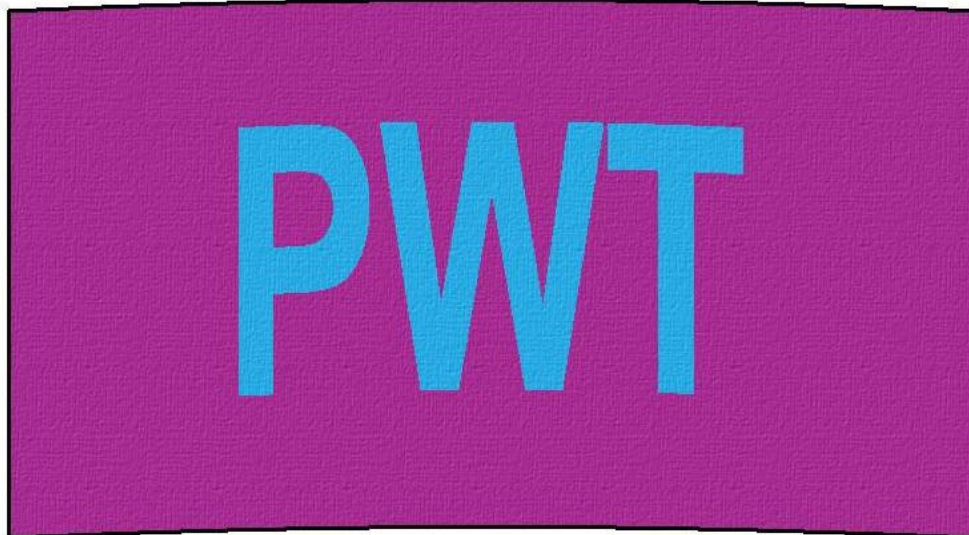
A Site Person in Charge of the work is usually identified by a white armband with orange lettering, worn on the left arm above the elbow.

Protecting Workers on the Track (PWT)

A person protecting workers on the track is identified by a claret armband with blue lettering, worn on the right arm above the elbow.

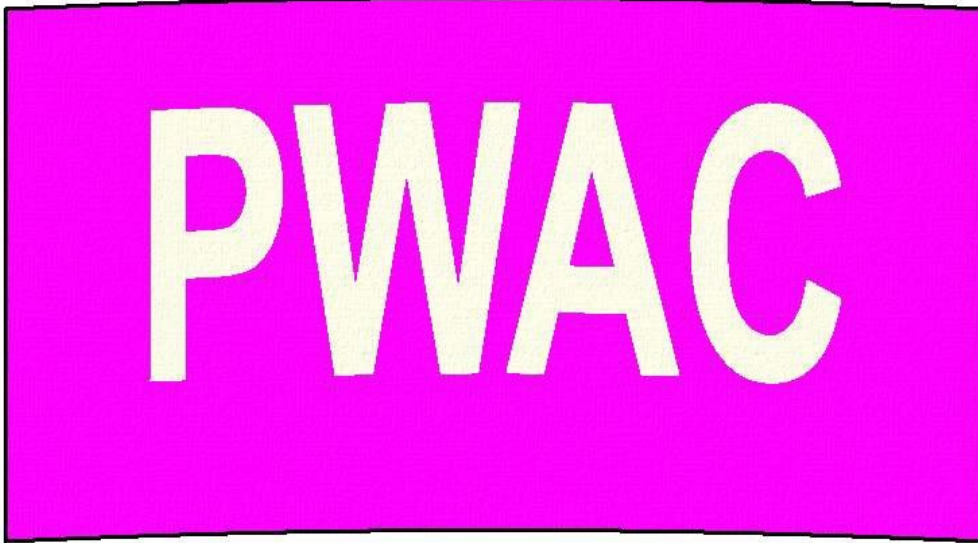
A person protecting workers on the track is needed when a workgroup accesses the track during both traffic and engineering hours. They're responsible for:

- Safely managing worksites and providing protection when a workgroup is working on or about the track
- Protecting the workgroup during traffic hours
- Protecting the workgroup and safely managing the worksite in engineering hours
- Protecting the workgroup and safely managing the worksite in depots (when safe to do so)



Example of an armband worn by a person protecting workers on the track

Possession Works Access Controller (PWAC)



Example of an armband worn by a possession worksite access controller

A possession worksite access controller is responsible for safely managing the access and egress of a possession worksite.

A possession worksite access controller is identified by a pink armband with white lettering, worn on the left arm above the elbow.

Depot Duty Manager/Maintenance Manager (DDM)

A duty depot manager/maintenance manager operations who is responsible for managing a depot.

There may be other people that you could meet depending on the activity or task you are carrying out.

Emergency evacuation and Fire

Triangle of fire

For a fire to start, the three elements of a fire have to come together at the same time, this is known as the triangle of fire.

The three elements of the triangle of fire are:

- Heat
- Oxygen
- Fuel

If any one of the three elements is removed the fire will go out. Each of the elements can be removed by:

- Cooling to remove the heat
- Smothering to remove the oxygen
- Starving to remove the fuel



Remember ... you must not re-enter the premises until you are told to do so by an authorised person (eg. someone from the Fire Brigade).

Fire prevention

To help prevent a fire you must:

- Remove rubbish from the worksite
- Keep flammable liquids in sealed metal containers
- Switch off electrical equipment when not in use

Discovering a fire

If you discover a fire you must:

- Raise the alarm
- Go to the safe when the evacuation alert sounds
- Contact the emergency services

If you are working on a station, the customer service manager/supervisor will evacuate the station and call the Fire Brigade.



Fire call point

If you discover a fire you must:

- Raise the alarm
- Go to the sap when the evacuation alert sounds
- Contact the emergency services

If you are working on a station, the customer service manager/supervisor will evacuate the station and call the Fire Brigade.

Responding to a fire alarm

If the fire alarm sounds you must:

- Immediately follow the instructions given to you at the safety briefing
- Evacuate
- Walk and not run
- Go to the SAP
- Not delay by collecting your belongings
- Not use lifts
- Close doors and windows behind you

Tackling a fire

You should not attempt to tackle a fire. It should be left to trained personnel, for example the Fire Brigade.

Fire blanket

You may find a fire blanket in locations where fire fighting equipment is stored.

Fire extinguishers



There are three types of portable fire extinguisher that can be found on LU stations:

- Water
- AFFF (foam)
- CO₂

The colour coding on a fire extinguisher is:

- Red – Water
- Cream – AFFF (foam)
- Black – CO₂

Types of fire extinguisher

Unattended items

Unattended items left on LU infrastructure could be treated as a suspect package. If you find an unattended item, you must:

- Ask people in the immediate area to check if it's theirs
- Not touch or move it
- Immediately report it to station staff, depot staff or the site person in charge
- Not use a radio or mobile phone in the area

Electrical equipment

You must not work on electrical equipment unless you are competent to do so.

Safety signs

British Standards safety signs

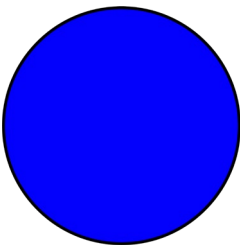
The British Standard European Number (BS EN) safety signs are in place for your health and safety and must be obeyed at all times.



Warning - for example high voltage is present



Prohibition (must not do) - for example no smoking in this area



Mandatory (must do) - for example you must keep fire doors shut



Safe way - for example fire exits



Fire equipment - for example fire equipment is nearby

BSEN sign examples



High voltage warning



Fire door - must keep shut



Fire exit - safe way



**NO SMOKING
NO VAPING**

Must not sign - no smoking/vaping



Fire equipment location - extinguishers

Hazard symbols

Hazardous substances in the workplace are identified by the symbols shown below. The table also shows what each symbol means, what it can do if untreated and a workplace example.



What it means	What it can do	Workplace example
Corrosive	May destroy living tissue on contact	Sulphuric acid



What it means	What it can do	Workplace example
Caution - used for less serious health hazards like skin irritation	Can cause inflammation to the skin	Bleach



What it means	What it can do	Workplace example
Explosive	Can explode	Detonators



What it means	What it can do	Workplace example
Dangerous to the environment	May present an immediate or delayed danger to one or more components of the environment	Engine oil



What it means	What it can do	Workplace example
Toxic	Can cause damage to health	Lead paint



What it means	What it can do	Workplace example
Long term health hazards such as carcinogenicity	Can cause respiratory problems	Asbestos



What it means	What it can do	Workplace example
Oxidising	Can react with other chemicals	Chlorine



What it means	What it can do	Workplace example
Gas under pressure	Gas released may be very cold	CO2 fire extinguisher



What it means	What it can do	Workplace example
Flammable	Can catch fire	Gas

The site person in charge will brief you on any harmful substances that you may come into contact with.

Chemical (including asbestos) hazards to health

Asbestos

Asbestos is a natural mineral found in rock. You cannot tell if material contains asbestos simply by looking at it, as asbestos is often masked by other materials.



Remember ... products that contain asbestos can look identical to those that do not.

The law

Asbestos is banned from use within the United Kingdom; this also includes second hand use of asbestos products, such as asbestos cement sheets. The Control of Asbestos Regulations 2012 requires those who manage non-domestic premises to protect persons from the risk of ill health and exposure to asbestos. Their duty is to:

- Take reasonable steps to find out if there are materials that contain asbestos, and if so the amount, where it is and what condition it is in
- Assess the risk of anyone being exposed to asbestos fibres from the material identified
- Prepare a plan that sets out in detail how the risks from these materials will be managed
- Implement the plan
- Periodically review and monitor the plan to ensure it is always up to date
- Provide information on the location and condition of the material to anyone who is liable to work on or disturb it
- Provide mandatory training for anyone liable to be exposed to asbestos

Effects on your health

Generally, materials in good condition that contain asbestos are safe. They become dangerous when they are damaged or have deteriorated.

When asbestos is broken down it releases tiny fibres into the air. These fibres, when breathed in can get deep into the lungs. If the fibres get lodged in your lungs they cannot be broken down by your body's natural defences or coughed out, this can then lead to asbestos related diseases such as lung cancer and asbestosis.

These diseases will not affect you immediately; they can often take a long time to develop.

Asbestos on LU infrastructure

We know that various materials used on LU infrastructure contain asbestos, for example:

- Sheathing for cables and washers
- Insulation
- Ceiling and floor tiles
- Pit blocks
- Tunnel ring caulking
- Noise Shelf within tunnel sections (Noise Reduction Equipment - NRE - Tunnel Remnants - link to safety bulletin No 6a in your 'H&S essentials' pack)
- Cable troughing
- Corrugated sheeting
- Cellactite sheeting
- Rope gaskets

Photographic examples



Cable sheathing and washers



Insulation



Corrugated sheeting



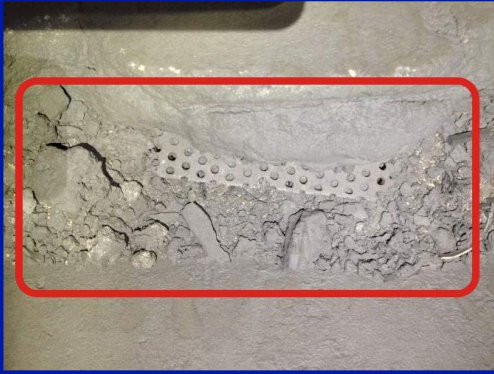
Cable wrapping



Noise reduction shelf remnants - from Noise Reduction Equipment (NRE)



Noise shelf remnants



Noise shelf remnants - 2



Noise shelf remnants broken away - 3



Cement troughing



Cellactite sheeting - 1



Cellactite sheeting - 2

Asbestos surveys

London Underground have a legal requirement to undertake asbestos surveys. Outcomes from these surveys will be recorded on the 'TfL Hazardous Materials Register'.

The surveys are then used to produce risk assessments and set priorities for the appropriate managers.

Your responsibilities

It is your legal duty to cooperate with the duty holder in managing asbestos. This means you must comply with any instructions regarding asbestos given to you in training and during safety briefings you receive onsite.

You must avoid disturbing or attempting to remove known materials that contain asbestos at all times. If you uncover anything that may contain asbestos, you must stop work and report it to the site person in charge.

You must not return to an area that contains asbestos until you are told it is safe by the site person in charge. Always ask the site person in charge if the building you are working in has been checked for asbestos.

Accidental disturbance of asbestos

If you accidentally disturb asbestos, you must:

- Stop work immediately and leave the area
- Tell the site person in charge, line manager or customer service manager/supervisor
- Make sure the accidental disturbance is reported through the appropriate incident reporting process

Storage of asbestos

If any waste is identified or advised as actual 'Asbestos containing waste', under regulations (Control of Asbestos Regulations - 2012) it cannot be stored at any time.

It must be removed under specific controlled processes and protocols using only licensed contractors. It must be removed to a specific 'Hazardous Waste Licensed Landfill' site.

Further training

Once you've completed this LU Work Site Safety induction learning material, you'll be given access links to further Asbestos Awareness eLearning. Here you'll find in-depth guidance on identifying asbestos hazards, reporting concerns and safe-working practices.

This course provides an awareness of how to recognise and manage the risks associated with asbestos at TfL, including:

- What asbestos is and its properties

- Types of asbestos containing materials and uses within TfL/LU
- Potential health risks
- Legal requirements under the Control of Asbestos Regulations (2012)
- Emergency procedures

This course is aimed at those who are required to plan, coordinate and undertake work in areas where asbestos may be present, as well as those who manage and supervise staff in these roles.

This additional training is optional and does not form part of the Worksite Safety Induction.

Lead

Lead is most commonly associated with plumbing or roof work, but it has also been used as a constituent of some paints. Any worksite where it is suspected that lead is present must be tested by the appropriate premises engineer before the work starts.

Lead usually enters the body by ingestion but can also enter by inhalation or via the skin. If you encounter any material that you suspect could be lead:

- stop work immediately and inform the site person in charge
- do not attempt to move it

Additional chemical hazard information

Once you've completed this LU Work Site Safety induction learning material, you'll be given links to undertake further eLearning course relating to chemical risks that may be present in your place of work. This course covers -

- PCB's, Lead, Mercury and Diesel Emissions (DEEEs)

This additional training is optional and does not form part of the Worksite Safety Induction.

Environmental hazards to health

Leptospirosis

Leptospirosis (also known as Weils disease) is a bacterial infection which is transmitted by infected animals, most commonly from the urine of rats. You can be infected by Leptospirosis through contact with sewage or water contaminated with rat's urine.

You can avoid infection by:

- Covering exposed cuts and abrasions with a waterproof dressing
- Using suitable ppe
- Washing your hands before eating

Further training

Once you've completed this LU Work Site Safety induction learning material, you'll be given access links to further Hazardous Materials eLearning. The module is designed to:

- Outline the potential health and environmental risks and effects of these hazards
- Provide an awareness of the associated legal requirements and emergency procedures in relation to these hazardous materials

It will provide an understanding of the following potentially hazardous materials and their occurrence within LU/TfL environments:

- Horsehair in plaster
- Rats
- Pigeon Guano & Dander

This additional training is optional and does not form part of the Worksite Safety Induction.

Additional risks to health

Needle-sticks



Discarded hypodermic syringe

A needle-stick is a hypodermic syringe. If you find a discarded hypodermic syringe you must:

- Not touch it
- Report it to the site person in charge

If you suffer a hypodermic syringe injury you should immediately seek medical attention and report the incident to your line manager or the site person in charge.

Slips and trips

You should take care to avoid anything that could cause you to slip or trip, for example:

- Walking through mud
- Walking over cables
- Walking on sleepers
- Working in areas with poor lighting
- Walking on uneven surfaces
- Using grease or oil

You can avoid slips and trips by:

- Following good housekeeping guidelines
- Keeping the worksite tidy
- Paying attention to what you are doing
- Not cutting corners when it comes to safety
- Not being distracted
- Walking in the cess or on ballast

Overhead line equipment (OLE)



Example of Overhead Line Equipment

If you have to work adjacent to Network Rail lines electrified by the 25kV Overhead Line Equipment (OLE) system, you should always:

- Consider the overhead lines and attachments to be live at all times
- Make sure clothing and any items you are carrying are at least 2.75 metres from:
 - anything attached to or hanging from the OLE
 - any broken or disconnected wire connected to the OLE equipment
- Make sure that items do not come within 2.75 metres by:
 - carrying long items horizontally
 - keeping paint, water and other liquids away from where they might be thrown, fall or splashed onto OLE
 - keeping tools and equipment clear of the OLE
- Make sure you do not come within 2.75 metres when you are:
 - on a structure of any kind
 - standing on a vehicle

Do not attempt to remove objects of any description from the OLE system.

Work must not be carried out above any OLE equipment, for example, on bridges and embankments, unless there is a physical barrier protecting the work area from the OLE, or the correct isolation and earthing arrangements have been made by Network Rail.

Site working

Arriving at site

For your own safety when arriving at a site you should:

- Park in well-lit areas (if in a vehicle)
- Ensure you take the necessary precautions when working alone

Parking

When parking a vehicle, you must have consideration for neighbouring properties. You should:

- Park in a responsible manner
- Use authorised parking spaces where appropriate
- Switch off the engine when possible

Loading and unloading a vehicle

When loading and unloading a vehicle you should:

- Be trained and competent
- Observe rules on manual handling
- Use designated routes to load and unload tools and equipment
- Keep noise to a minimum
- Check the surrounding area for people and obstructions, including areas overhead

First aid

When you arrive at a worksite you will be told:

- Who the First Aider is
- Where the nearest first aid point is
- Where you can find the emergency contact numbers


Any injuries must be reported to the site person in charge.

The environment

We all have a duty of care to protect the environment by:

- Controlling waste and pollution
- Respecting biodiversity, for example protecting the natural environment and its variety of life forms

You will be told by the site person in charge if there are any environmental restrictions that may affect your work.

 Remember ... wildlife includes plants and animals.

Spillages

When using liquid substances, you must make sure you have a spill kit available and the appropriate PPE to deal with any spillages. You must inform the site person in charge or the local manager of any spillages at the worksite.

Storage of tools and materials

Whenever you need to store materials or equipment on London Underground (LU) premises, you must apply for a storage licence. This must be submitted to the relevant LU landlord manager (station storage) or Track Manager (lineside storage) 21 days before the work takes place (for initial storage requests).

Storage Licence			
To:	Landlord's Ref:		
From:	User's Ref:		
Department:	Section:		
Date:	Tel No:	Fax No:	
Reason for Storage			
Type of items to be stored (tick as appropriate): Maintenance <input type="checkbox"/> Strategic spares <input type="checkbox"/> Project <input type="checkbox"/> Spares <input type="checkbox"/>			
Location at which to be stored		Exact site <input type="checkbox"/> Size of area required <input type="checkbox"/>	
TO BE SUBMITTED AT LEAST 21 DAYS PRIOR TO COMMENCEMENT OF STORAGE PERIOD			
Storage period required		From Date: Inclusive To Date:	
Full description and quantity of materials/equipment to be stored. Indicate (a) = non-flammable (b) = not readily flammable (c) = flammable (d) = highly flammable (e) = risk of toxic fumes in fire situation (f) = extremely flammable			
Proposed method of storage: <input type="checkbox"/> Bagged <input type="checkbox"/> Caged <input type="checkbox"/> In Compound <input type="checkbox"/> In Bins <input type="checkbox"/> Loose <input type="checkbox"/> Secured <input type="checkbox"/> Stacked (mark as appropriate)			
User department responsible officials			
Day Emergency Contact:		Office Telephone No.	
Name:			
Night Emergency Contact:		Office Telephone No.	
Name:			
Night Emergency Contact:		Office Telephone No.	
Name:			
Bakerloo, Victoria, Metropolitan, Hammersmith & City, Central and District line applications (for Lineside and Station Pit only, not Stations or Depots) to be submitted to the line TISM.		Elipse W/O Number	
SIGNED		Date	
For and on behalf of the user department			
Name		Signature	
Conditions of licence to store			
1. The user accepts accountability to use the storage area only as detailed above			
2. The user accepts accountability for keeping the storage area in a safe and proper condition			
3. The user must vacate the storage area on or before the date shown or must apply for and receive an extension at least 7 days prior to expiry			
4. The user accepts accountability for the cleanliness of the storage area when the site is vacated			
5. Special conditions			
Copies distributed by Applicant (tick as appropriate)			
The licence, which can be withdrawn without notice, is granted for the period shown subject to the above conditions.		Fleet Manager <input type="checkbox"/> CSS / CSM <input type="checkbox"/>	
		Area Manager <input type="checkbox"/> Line Safety Adviser <input type="checkbox"/>	
		Service Control Manager <input type="checkbox"/> Fire Safety Engineer <input type="checkbox"/>	
		Train Crew Manager <input type="checkbox"/> User Department <input type="checkbox"/>	
		Trans Operations Manager <input type="checkbox"/> Other (specify) <input type="checkbox"/>	
STORAGE CONTAINER AND/OR MATERIALS MUST BE SUITABLY FIXED AND SECURED AS PER LU STANDARD S1158, SECTION 3.9 (Track Inspection and Maintenance) and LF14 (Applying for a Storage Licence)			
Corporate F-10819 A4			

Storage Licence

Types of materials that can be stored

Any materials or equipment necessary for the maintenance or renewal of the operational railway can be stored on LU premises subject to the granting of a storage licence. Materials must be shown on the storage licence in accordance with the following definitions:

- Non-flammable, eg - metals
- Not readily flammable, eg - timber, some greases and oils (flash point above 55°C)
- Flammable, eg - diesel fuel, white spirit, paraffin (flashpoint between 21°C and 55°C)
- Highly flammable, eg - methylated spirits (flash point between 0°C and 21°C)
- Extremely flammable, eg - petrol (flash point below 0°C)



Check that the materials / equipment that need to be stored are not prohibited before applying for a storage licence.

Rule Book leaflet I4 will give you more details and links relating to the application and management of storage licences.

When storing anything lineside you must check that the items do not:

- Obstruct the line in a way for the movement of trains or other rail mounted vehicles
- Affect the sighting of and signal or lineside signage
- Present a slip or trip hazard to people working on the track
- Affect any places of safety or limited clearances
- Are properly secured in the way described on the storage licence
- Are stored in a location that minimises the opportunity of theft or vandalism

Waste management

All waste has to be stored away from drains and disposed of correctly. Hazardous waste and non-hazardous waste must always be kept segregated. You must inform the site person in charge or the local manager of any storage issues at the worksite.

Specific arrangements for the storage of asbestos

If any waste is identified or advised as actual '**Asbestos containing waste**', under regulations (Control of Asbestos Regulations 2012) it cannot be stored at any time.

It must be removed under specific controlled processes and protocols using only licensed contractors. It must be removed to a specific '**Hazardous Waste Licensed Landfill**' site.

Flammable liquids and gases

To minimise the risk of fire or explosion from the storage, transportation and use of flammable liquids and gases you should:

- Store them in approved storage areas
- Use the correct method for disposing of empty containers as detailed in the Site Waste Management Plan
- Have the necessary licence to transport liquid or gas

Buried services

Buried services can be cables or pipes that carry, for example, gas, electricity or water under the ground. If you damage any buried service there is always a risk of explosion, electrocution, flooding or contact with hazardous substances.

The risks are mitigated by detailed pre-work surveys and investigatory work.

Remember:

- Always treat buried services as LIVE until proven otherwise
- Under no circumstances should you try to repair a damaged buried service
- Report any damaged buried service to the site person in charge
- Do not use exposed buried services as a convenient step or handhold

Confined spaces

Confined spaces are locations that are enclosed, for example:

- A chamber
- A pit
- A tank
- A platform invert

There are additional risks for working in a confined space and those working in confined spaces must have had specific training. Arrangements for your safety will be put in place by the site person in charge.

Using a lift, escalator or moving walkway

To use a lift, escalator or moving walkway to move tools or equipment you must have a valid movement of materials licence listing the tools and equipment to be moved. There must also be a certificated operator in attendance.



Remember ... you must report any damage to the lift, escalator or moving walkway to the site person in charge.

Working at height

Before any work at height is undertaken it will be planned by a competent person who will use the following steps to make sure there is a safe system of work in place.

1. **Avoid** working at height wherever possible.
2. **Prevent** falls by using the correct equipment.
3. **Minimise** the distance of a fall.

Any individual involved in the work must be trained, competent or supervised by a competent person as detailed in the method statement.

All work equipment must be regularly inspected and, where applicable, erected by competent persons in accordance with industry or company standards and compliant with current legislation.

Arrangements for working at height will be detailed in the method statement and put in place by the site person in charge.

Lifting equipment

Lifting equipment can only be used by trained and competent persons. If you find any lifting equipment out-of-date or damaged, you must report it to your line manager or the site person in charge and remove the equipment from use.

Electrical equipment

All electrical equipment has the potential to be hazardous. If the electrical equipment is defective, you should report it to the site person in charge and remove it from use. As soon as you've finished with any electrical equipment you should make sure that it is switched off, isolated and stored away safely.

Vibrating tools

Hand Arm Vibration Syndrome (HAVS) or Vibration White Finger is a condition caused by the prolonged use of vibrating tools. Symptoms include pins and needles in the hand and fingers, wrist pain and loss of grip strength. If you have any symptoms you must inform your line manager or the site person in charge.

Only use tools you are trained to use and make sure they are properly maintained.

Dust and dust control

There may be dust in tunnels or from the use of tools and equipment that can irritate the nose, throat, lungs and eyes.

If your work is going to create dust it will be detailed in the method statement. You will be provided with the correct PPE which will include a correctly face-fitted mask specific to your face type.

Noise at work

Exposure to excessive noise must be identified in the method statement. The site person in charge will make sure all necessary controls are put in place.

Hot work

Hot work is described as:

- Cutting
- Welding
- Grinding
- Operation of bitumen boilers
- Use of blowlamps
- Braising and soldering

Before hot work is carried out you must have a hot works permit and a fire watch person must be present.



Example of hot working

Moving machinery and 'Exclusion zones'



Example of an exclusion zone

When you are working in an area where machinery is moving, you must not enter the exclusion zone(s) kept around the machinery.

Before you pass or work near any machinery make sure you have the permission to do so from the machine/crane operator, banksman or site person in charge.

The exclusion zone(s) will be included in the worksite briefing carried out by the site person in charge.

Leaving the worksite

You should always make sure that the worksite is left clean and tidy. It is the responsibility of the site person in charge to arrange for the removal and storage from the worksite of any:

- Equipment
- Materials
- Plant and tools

How to book onto the 'LU worksite safety induction' assessment.

Assessment

Well done!

You've got to the end of the pre-learning content for LU worksite safety. You now have all the information you need to be safe on site and to challenge situations you feel may be unsafe. If there's a situation that you believe could present a risk to yourself or others, we want you to speak up.

Additional learning

By completing this module, you now have a good idea of how to access and work safely in a TfL or LU worksite. You also know how to respond to any issues you may have around safety on site and how to report any safety concerns.

We'd like to draw your attention to some additional LU environment specific safety related courses.

Although not mandatory, doing these courses is recommended. The courses give you more in-depth detail on the differing types of asbestos containing materials and other hazardous materials found within the London Underground environment. You'll find out about the safety and control measures in place to manage these hazards.

The courses are free to access and support the safe working practices:
















- Hazardous Material (PCB and horsehair)
- Asbestos Awareness

You can access these courses at-

www.professionalcommunities.org.uk

You'll need to set up your own account and then you'll find both modules under the Safety, Health and Environment section as shown below:

▾ Safety, Health and Environment

 Urban Safety	 
 Hazardous Materials Awareness	 
 Asbestos Awareness	 
 InfoExchange - Creating an Incident Report	 
 Health and Safety CDM DataStore	 

Screen shot from **Professional Communities** learning site

These courses will give you a greater awareness of additional hazards that you may encounter when working on our infrastructure.

Reports relating to safety incidents on our infrastructure are published in Safety Bulletins and Alerts. You can access all current and historic documents here:

- Safety Alerts/Bulletins

<https://rise.articulate.com/share/IL0LAJ8o66Dnzxwm2qOr8Vkp4VlaZkwF>

Booking your LU Worksite Safety Induction

Let your line manager/company know that you've completed your pre-learning and you're ready to take the Worksite Safety Induction assessment.

Once you manager/company have your confirmation, you'll be booked onto an invigilated assessment at one of London Underground assessment centres.

Good luck!

Contact
LU Skills Development
email: LUSDdesign@tfl.gov.uk

