

Standard Category **1**

S1166

Cleaning of the track environment

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1 Purpose

The purpose of this standard is to define the cleanliness and tidiness requirements for the track environment.

2 Scope

2.1 The cleaning requirements specified in this standard apply to the following areas:

- a) all sections (running lines and depots):
 - I) the track;
 - II) the surfaces of the casings of trackside equipment;
 - III) the external surfaces of service lines, air pipes, signal and other cable runs, track pipes, installed permanent lighting;
 - IV) the external surfaces of signals and the surfaces of all track signage;
 - V) the track cess, all components listed in Section 5 and voids or drains under the track;
- b) open sections:
 - I) all land between the track cess and the operational boundary fence;
 - II) platform inverts and other features within station grounds;
- c) sub-surface sections:
 - I) the surface of surrounding trackside structures including soffits and vertical structures;
 - II) any areas of limited access in the sub-surface section including, but not limited to, the entrances to shafts and service tunnels;
 - III) platform inverts and other features within station grounds;
- d) tube sections:
 - I) the exposed internal surfaces of tube section running tunnels and spaces behind equipment and trackside panels;
 - II) the upper and lower surfaces of noise reducing screens, where these are installed;
 - III) areas of limited access within the running tunnels including, but not limited to, the entrances to shafts and service tunnels;
 - IV) platform inverts, walls and safety pits, paper traps and other features within station grounds.

2.2 For the purposes of this standard LU property is classified, in line with the Code of Practice on Litter and Refuse (COPLR), as follows:

- a) Low intensity of use: operational land between the track and operational boundary fence within 100m of platform end;
- b) Special circumstances: operational land between the track and operational boundary fence beyond 100m of platform end.

However, subject to agreement with LU, areas within 100m of platform ends with difficult access arrangements for cleaning may be declared as “special circumstances” and be subject to longer response times (response times are shown in clauses 5.3.5.1 and 5.3.5.2).

3 Requirements

3.1 General

- 3.1.1 Track sections, tunnels, station grounds, walkways and all components shall be cleaned to the required level of cleanliness in conformity with Section 5.
- 3.1.2 Cleaning programmes shall be undertaken to ensure compliance with the requirements of this standard and the Code of Practice on Litter and Refuse made under the Environmental Protection Act 1990.
- 3.1.3 Cleaning activities shall include the safe removal and disposal of refuse, litter and waste materials.
- 3.1.4 Combustible refuse stored in premises pending its disposal shall be stored in an approved area set aside for that purpose.
- 3.1.5 Crossover, step plate and dead end tunnels which form part of the operational railway shall be cleaned as indicated in Section 5.
- 3.1.6 Some cross passages, cable tunnel openings, other spaces in tunnels, and disused tunnels may not be available to staff engaged in routine cleaning. Local managers shall ensure that these areas are kept in a clean condition by the use of other resources if necessary.
- 3.1.7 At certain locations on sub-surface sections of the railway, spaces exist between the track cess and the boundary of LU property outside the area subject to a cleaning programme for station grounds. These areas shall be cleaned to the standard of cleanliness indicated in Section 5.
- 3.1.8 Locations used for the storage of tools and equipment shall be maintained in a clean and safe condition.

3.2 Paper traps

- 3.2.1 Paper traps shall be installed at the run-out ends of platforms in tube sections and adjacent to the end of platforms in the platform safety pits in tube section station grounds. Where trains reverse, they shall be located at both ends of the platform.
- 3.2.2 Where a secondary, deeper platform safety pit exists, a second paper trap shall be fitted.
- 3.2.3 Paper traps shall be inspected in the course of patrolling inspections and maintained to ensure that they are functioning efficiently.

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3.2.4 Paper traps shall be cleaned at maximum intervals of 7 days.

4 Responsibilities

4.1 The Professional Head of Track Engineering is responsible for the technical content of this standard.

4.2 LU and LU Suppliers shall be responsible for compliance with the requirements of this standard.

5 Supporting information

5.1 Safety considerations

The risks that can arise from failure to maintain the appropriate standard of cleanliness include the following:

- a) fires resulting from the accumulation of flammable materials and materials which are capable of creating an electric arc;
- b) destruction of, or damage to, trackside equipment including signal cables, signals, signs, trainstops and points by fires fed by accumulated litter and other flammable materials;
- c) failure of trackside equipment such as switches and trainstops caused by metal objects impeding full operation or shorting electrical supplies;
- d) deterioration or failure of trackside equipment due to ingress of dirt;
- e) masking of signals or signs by accumulations of dirt or litter;
- f) reduced efficiency of track safety inspections by obscuring faults;
- g) increased risk of slips, trips and falls;
- h) increased risk of toxic chemical pollution or substances which contribute to skin disease and other ailments;

with the potential consequences of causing sickness, injury or death of people and disruption.

5.2 Tube tunnel areas covered by this standard

The tube tunnel areas covered by this standard are shown in Figure 1.

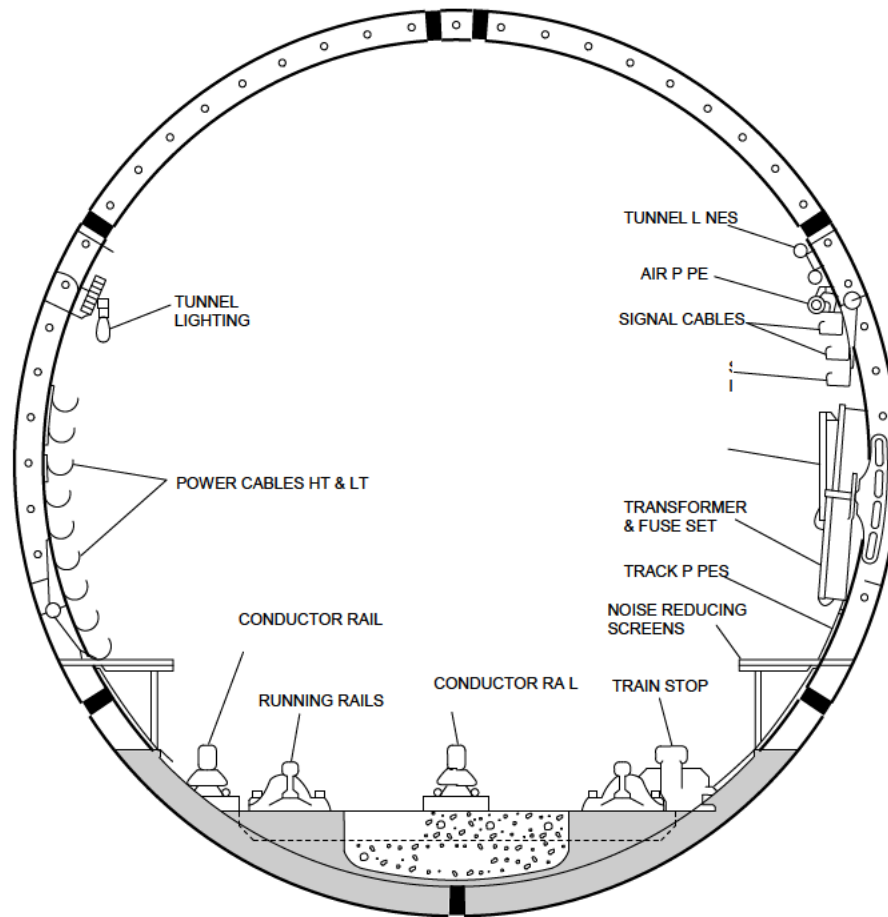


Figure 1 - Tube section track - associated tunnels and station grounds

5.3 Standards of cleanliness

Note: In some cases the illustrations provided in this section show a standard of cleanliness that it may not always be practicable to achieve. Reference should be made to the text for the definitive requirement.

5.3.1 Tube section - running tunnel

a) Tunnel walls including behind equipment

Standard of cleanliness

Clear of accumulations of dust, fluff, oil, grease, flaking finish

Minimum frequency of inspections

Monthly



b) Surface of track equipment, tunnel lines, air pipes, track pipes, cables and lighting

Standard of cleanliness

Clear of litter, oil, grease and accumulations of loose dust

(Photograph not available)

Minimum frequency of inspections

Monthly

c) The upper and lower surfaces of noise reducing screens, behind trackside panels and wall mounted cabinets

Standard of cleanliness

Clear of paper, drinks containers, other litter, oil, grease accumulations of fluff and dust

(Photograph not available)

Minimum frequency of inspections

Monthly

d) The surface of the track

Standard of cleanliness

Clear of litter, oil, grease and accumulations of dust
with no disturbance of ballast or shingle

Minimum frequency of inspections

Weekly



e) Running rails

Standard of cleanliness

Clear of accumulations of grease (except on rail
gauge face), on chairs, sleepers, fishplates and keys

Minimum frequency of inspections

Monthly



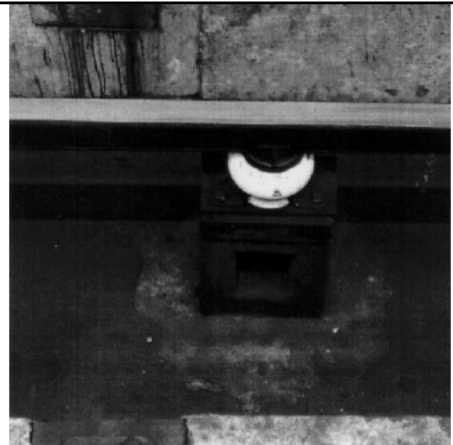
f) Conductor rail insulators and insulator pedestal

Standard of cleanliness

Clear of oil, grease dust and engrained dirt

Minimum frequency of inspections

Monthly



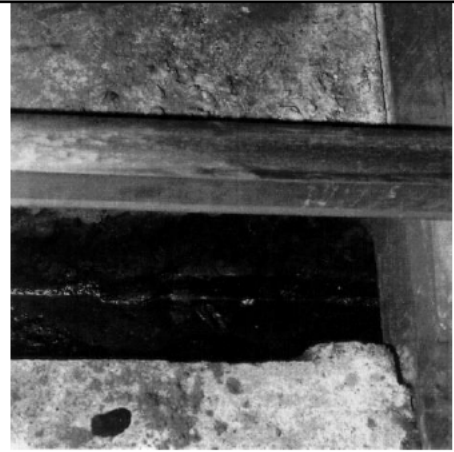
g) Voids under track

Standard of cleanliness

Clear of dirt, oil, grease, accumulations of dust and maintenance materials unless in approved storage.

Minimum frequency of inspections

Monthly



5.3.2 Tube section - station grounds and 50m of running tunnel at exit end

a) Surface either side of platform safety pit and safety pit

Standard of cleanliness

Clear of litter and accumulations of loose dust.

(Photograph not available)

Minimum frequency of inspections

See section 5.3.6

b) Track equipment and signs within station grounds

Standard of cleanliness

Clear of accumulations of oil, grease, fluff and dust.

(Photograph not available)

Minimum frequency of inspections

See section 5.3.6

c) Grounds between headwalls

Standard of cleanliness

Clear of surplus track maintenance components or materials.

(Photograph not available)

Minimum frequency of inspections

See section 5.3.6

d) Walls and overheads

Standard of cleanliness

Clear of dirt and dust accumulations and in accordance with station ground cleaning standard. (Photograph not available)

Minimum frequency of inspections

To meet requirements of station cleaning programme.

5.3.3 Sub-surface section running tunnels, including intermediate open sections

Area	Standard of cleanliness	Minimum frequency of inspections
a) Track, cess and any land to boundary	Clear of litter, oil, grease and accumulation of dust with no disturbance of ballast, no surplus track components or maintenance materials unless in approved storage.	Weekly
b) Surfaces of track equipment, pipes, lines and cables	Clear of litter, oil, grease and accumulations of dust. Coloured surfaces distinct and markings legible.	Weekly
c) External surfaces of signals and signs	Clear of dirt, oil, grease and dust. Colours and symbols distinct.	To meet signalling requirements

5.3.4 Sub-surface station grounds and structures over track

Area	Standard of cleanliness	Minimum frequency of inspections
a) Surface of track	Clear of litter, oil and grease with no disturbance of ballast, no surplus track components or maintenance materials unless in approved storage.	See section 5.3.6
b) Platform inverts	Free of any litter, accumulations or oil, grease or dust.	See section 5.3.6
c) Track equipment and signs	Free of accumulations of dust, fluff, oil and grease (except light film), litter debris.	See section 5.3.6

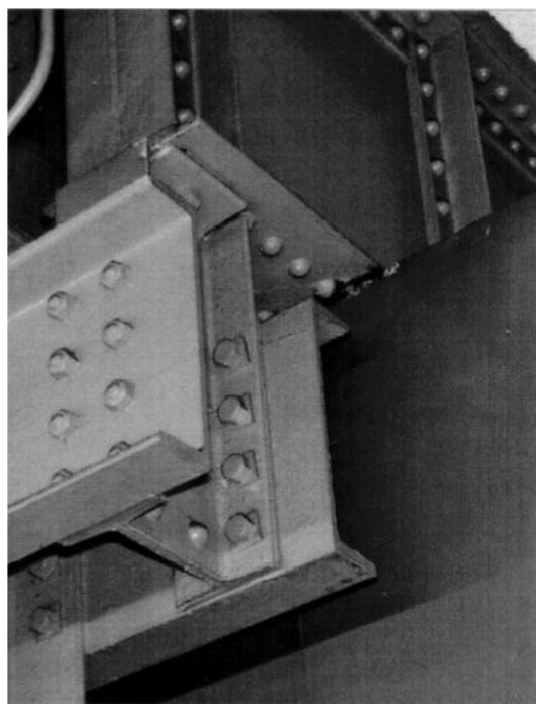
d) Station soffit

Standard of cleanliness

All components of overhead structures free of accumulations of dust, grime, bird droppings with material colours visible and distinct

Minimum frequency of inspections

In accordance with station cleaning programme.



5.3.5 Open section

5.3.5.1 *Within 100m from platform ends (COPLR zone “low intensity of use”, but see Note below)*

Note: Subject to agreement with LU, areas with difficult access arrangements for cleaning may be declared as “special circumstances” and be subject to the response times in clause 5.3.5.2

The track and the land between the track and the operational boundary fence shall be kept clear of litter and refuse to the following standards (as described in the Code of Practice on Litter and Refuse):

- a) grade B shall be obtained after clearance;
- b) if the standard falls to grade C, the area shall be restored to grade B within 14 days.
- c) if the standard falls to grade D, the area shall be restored to grade B within 5 days.

Minimum frequency of inspection shall be such as to ensure compliance with the COPLR grades specified above.


5.3.5.2 *Beyond 100m from platform ends (COPLR zone “special circumstances”)*

The track and the land between the track and the operational boundary fence shall be kept clear of litter and refuse to the following standards (as described in the Code of Practice on Litter and Refuse):

- a) grade B shall obtained after clearance;
- b) if the standard falls to grade C, the area shall be restored to grade B as soon as practicable but not later than 6 months;
- c) if the standard falls to grade D, the area shall be restored to grade B as soon as practicable but not later than 3 months.

Minimum frequency of inspection shall be such as to ensure compliance with the COPLR. grades specified above

5.3.5.3 Station grounds

<p>a) Surface of track</p> <p>Standard of cleanliness Clear of litter, oil and grease with no disturbance to ballast, no surplus track components or maintenance materials unless in approved storage</p> <p>Minimum frequency of inspections As required to comply with standard of cleanliness</p>	
<p>b) Platform inverts</p> <p>Standard of cleanliness Clear of litter, oil and grease</p> <p>Minimum frequency of inspections As required to comply with standard of cleanliness</p>	<p>(Photograph not available)</p>

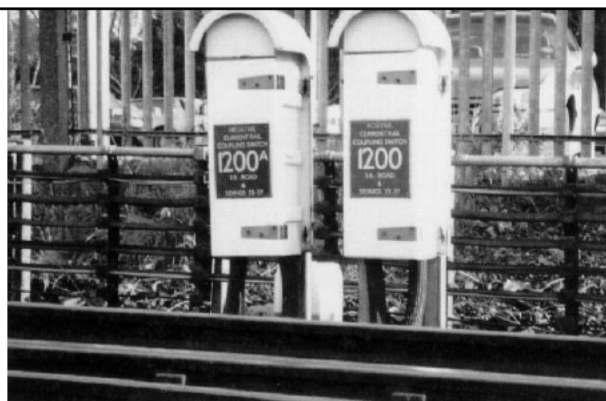
c) Track and trackside equipment and signs

Standard of cleanliness

Clear of accumulation of dirt, dust, oil or grease with colours distinct and symbols or text legible.

Minimum frequency of inspections

As required to comply with standard of cleanliness



5.3.6 List of tube and sub-surface section station grounds

B	Bakerloo Line
C	Central Line
D	District Line
H	Hammersmith and City Line
J	Jubilee Line
M	Metropolitan Line
N	Northern Line
P	Piccadilly Line
V	Victoria Line
W&C	Waterloo & City

- a) Tube station grounds and 50m of running tunnel at the exit of the station - to be confirmed clean WEEKLY.

		No of Platforms	Lines
All stations listed in section 5.3.6(e)		256	
PLUS			
Bank		2	W&C
Morden		3	N
Queens Park		2	B
Stratford		2	C
Waterloo		2	W&C
	TOTAL	267	

b) Sub-surface station grounds - to be confirmed clean TWICE WEEKLY.

		No of Platforms	Lines
Baker Street		6	M
Earls Court		4	D
Edgware Road		4	H
Embankment		2	D
Finchley Road		4	M
Gloucester Road		3	D
High Street Kensington		4	D
Kings Cross		2	M
Liverpool Street		2	M
Mansion House		2	D
Mile End		2	D
Paddington (Suburban)		2	H
South Kensington		2	D
Tower Hill		3	D
Victoria		2	D
	TOTAL	44	

c) Sub-surface station grounds - to be confirmed clean WEEKLY.

		No of Platforms	Lines
Aldgate		4	M
Aldgate East		2	D
Bayswater		2	D
Farringdon		2	M
Hammersmith		4	D,P
Monument		2	D
Moorgate		4	M
Notting Hill Gate		2	D
Paddington (Circle)		2	D
Putney Bridge		3	D
Sloane Square		2	D
St James's Park		2	D
Westminster		2	D
Whitechapel		4	D
	TOTAL	45	

d) Sub-surface station grounds - to be confirmed clean TWO-WEEKLY.

		No of Platforms	Lines
Barbican		2	M
Barons Court		4	D,P
Blackfriars		2	D
Bow Road		2	D
Cannon Street		2	D
Euston Square		2	M
Fulham Broadway		2	D
Great Portland Street		2	M
Stepney Green		2	D
Temple		2	D
West Brompton		2	D
	TOTAL	24	

e) List of tube station platform safety (suicide) pits

l) To be confirmed clean at 24 HOUR intervals

		No of Platforms	Lines
Baker Street		4	B,J
Bank		4	C,N
Bond Street		4	C,J
Camden Town		4	N
Charing Cross		6	B,N,J
Covent Garden		2	P
Elephant & Castle		4	B,N
Embankment		4	B,N
Euston (Charing Cross)		2	N
Holborn		5	C,P
Holland Park		2	C
Kensington		4	N
Kings Cross		6	V,N,P
Leicester Square		4	N,P
Marble Arch		2	C
Notting Hill Gate		2	C
Oxford Circus		6	V,C,B
Piccadilly Circus		4	P,B
Stockwell		4	V,N
Tottenham Court Road		4	C,N
Victoria		2	V
Waterloo		4	B,N
	TOTAL	83	

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List of tube station platform safety (suicide) pits (continued)

II) To be confirmed clean at 48 HOUR intervals

	No of Platforms	Lines
Angel	2	N
Archway	2	N
Arsenal	2	P
Balham	2	N
Belsize Park	2	N
Bethnal Green	2	C
Blackhorse Road	2	V
Borough	2	N
Bounds Green	2	P
Brixton	2	V
Caledonian Road	2	P
Chalk Farm	2	N
Chancery Lane	2	C
Clapham Common	2	N
Clapham North	2	N
Clapham South	2	N
Colliers Wood	2	N
Earls Court	2	P
Edgware Road (Bakerloo)	2	B
Euston (City & Victoria)	4	N,V
Finsbury Park	4	V,P
Gants Hill	2	C
Gloucester Road	2	P
Goodge Street	2	N
Green Park	6	V,P,J
Hampstead	2	N
Hatton Cross	2	P
Heathrow Terminal 1, 2, 3	2	P
Heathrow Terminal 4	1	P
Heathrow Terminal 5	2	P
Highbury & Islington	2	V
Highgate	2	N
Holloway Road	2	P
Hounslow West	2	P
Hyde Park Corner	2	P
Kilburn Park	2	B
Knightsbridge	2	P
Lambeth North	2	B
Kentish Town	2	N
Lancaster Gate	2	C
Liverpool Street	2	C
London Bridge	2	N

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List of tube station platform safety (suicide) pits (continued)

II) To be confirmed clean at 48 HOUR intervals (continued)

		No of Platforms	Lines
Maida Vale		2	B
Manor House		2	P
Marylebone		2	B
Mile End		2	C
Moorgate		2	N
Mornington Crescent		2	N
Old Street		2	N
Oval		2	N
Paddington (Bakerloo)		2	B
Pimlico		2	V
Queensway		2	C
Redbridge		2	C
Regents Park		2	B
Russell Square		2	P
Seven Sisters		2	V
Shepherds Bush (Central)		2	C
South Kensington		2	P
South Wimbledon		2	N
Southgate		2	P
St John's Wood		2	J
St Paul's		2	C
Swiss Cottage		2	J
Tooting Bec		2	N
Tooting Broadway		2	N
Tottenham Hale		2	V
Tufnell Park		2	N
Turnpike Lane		2	P
Vauxhall		2	V
Walthamstow Central		2	V
Wanstead		2	C
Warren Street		4	N, V
Warwick Avenue		2	B
Wood Green		2	P
	TOTAL	159	

List of tube station platform safety (suicide) pits (continued)

III) To be confirmed clean at 96 HOUR intervals

		No of Platforms	Lines
Bermondsey		2	J
Canada Wharf		2	J
Canary Wharf		2	J
London Bridge		2	J
North Greenwich		2	J
Southwalk		2	J
Waterloo		2	J
Westminster		2	J
	TOTAL	16	
	GRAND TOTAL	258	

6 Person accountable for the document

Name	Job title
Stephen Barber	Head of Track Engineering

7 Definitions

The following topic specific definitions are created:

- within London Underground's Glossary of Terms (S1622) (a Category 1 Standard)
- from published sources that are clearly identified.

Term	Definition	Source
Open section	Those tracks that are neither Sub-surface or Tube.	a
The cess	The space alongside the railway lines extending to a cable run or other boundary.	a
The permanent way system	All railway tracks in passenger service, the adjoining depots and sidings mostly electrified, immediate timber and sleeper support and ballast, cuttings, embankments, drainage and all associated permanent way features between and including the operational fences but excluding earthworks, structures, electrical, signalling and communications installations.	a

8 Abbreviations

The following abbreviations are created:

- a) from within the glossary
- b) from other, identified published sources.

Abbreviation	Definition	Source
COPLR	Code of Practice on Litter and Refuse (Environmental Protection Act 1990)	a
EPA	Environmental Protection Act 1990	a
LU	London Underground	a

9 Document history

Issue no.	Date	Changes	Author
A1	Oct 2007	Renumbered from 2-01302-450.	Quentin Phillips
A2	Apr 2010	Update reference to Environmental Protection Act and tidy the presentation of the standard. Other minor amendments. DRACCT ref 01284.	Quentin Phillips
A3	April 2016	Clauses 2.3 and 3.3 deleted and various changes to clause 4. Renumbered from 1-166 to S1166 as per change No. 04523.	Quentin Phillips

10 References

10.1 Statutory documents

Document no.	Title or URL
	Code of Practice on Litter and Refuse (EPA 1990)

10.2 LU company documents

Document no.	Title or URL
S1055	Civil Engineering – Deep tube tunnels and shafts
S1622	Glossary of terms and abbreviations