

BS 7255:2023



BSI Standards Publication

Safe working on lifts – Code of practice

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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 November 2023. It was prepared by Technical Committee MHE/4, *Lifts, hoists and escalators*. A list of organizations represented on this committee can be obtained on request to the committee manager.

BSI Committee MHE/4 takes collective responsibility for the preparation of this British Standard. The Committee wishes to acknowledge the personal contribution of Dr Gina Barney to this British Standard and to the work of MHE/4 from 1992 to 2023.

Supersession

This British Standard supersedes BS 7255:2012, which is withdrawn.

Information about this document

This is a full revision of the document, and introduces the following principal changes:

- a) restructuring of the main clauses;
- b) updates to accommodate new legislation;
- c) updates to accommodate new and revised standards published since 2012;
- d) new recommendations for an owner's safety survey and documentation;
- e) new recommendations on reporting and exchange of information;
- f) replacement of specific qualifications with references to industry guidance;
- g) new procedures for removing an unsafe lift from service;
- h) new checks and tests on changes before returning a lift to service;
- i) new recommendations for the wellbeing of a person working with others;
- j) revision of recommendations for electrical working;
- k) new and revised procedures for safe working on the car top and in the pit;
- l) new procedures for safe working in machinery spaces; and
- m) revised recommendations for major repair and dismantling.

Copyright is claimed in the following elements of the document:

- definitions [3.2](#), [3.11](#), [3.13](#), [3.19](#), [3.26](#) and [3.27](#);
- [Table A.1](#); and
- [Figure B.1](#).

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As a code of practice, this British Standard takes the form of recommendations and guidance. It is not to be quoted as if it were a specification. Users are expected to ensure that claims of compliance are not misleading.

Users may substitute any of the recommendations in this British Standard with practices of equivalent or better outcome. Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions in this document are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is “should”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

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Introduction

In drafting this British Standard, it has been assumed (unless otherwise stated) that the lifts on which work is being undertaken have been placed on the market and into service in accordance with one of the following standards: [BS EN 81-1](#), [BS EN 81-2](#) or [BS EN 81-20](#).

At the time of publication, there have been two revisions of [BS EN 81-20](#), in 2014 and 2020, both of which are referenced in this document. For clarity, the European Foreword of [BS EN 81-20:2020](#) included the following on its relationship with BS EN 81-20:2014: “No technical changes have been made during this revision”. Clause numbers and their requirements were unchanged in the 2020 revision from the 2014 revision.

For lifts that have been placed on the market and into service in accordance with earlier standards, this British Standard which references [BS EN 81-80](#) can assist:

- a) an owner to identify improvements to be made to their lift; and
- b) persons working on lifts to recommend improvements and develop safe working procedures for a particular lift.

Since the introduction of the Lifts Regulations 1997 [1] from 1 July 1999, many lift designs have not followed the relevant standards for lifts, e.g. [BS EN 81-1](#), [BS EN 81-2](#) or [BS EN 81-20](#), and have instead been approved under type examination (e.g. model lift), unit verification or design examination. This has allowed the introduction of alternative equipment and solutions than those described in the main standards for lifts, thereby also introducing different procedures for carrying out some work tasks on lifts. In many places in this British Standard, there are references to the owner’s documentation for the details of how certain tasks on a lift are to be completed safely. Hence it is essential that the owner retains the information provided with the new lift and makes it available to any persons working on the lift.

The procedures described in this British Standard are generic, and in some cases they might not align with the owner’s documentation provided with a new lift installation (see [4.4](#)) by the installer of the lift. In such cases the procedures can be used, in conjunction with the owner’s documentation, as the basis for the development of bespoke safe working procedures for the particular lift.

It has also been assumed in drafting this British Standard that:

- 1) any operation of the lift in the event of fire, recall operation, operation as an evacuation lift, or operation to allow for use by firefighters, has been checked; and
- 2) it has been confirmed that these operations do not override maintenance operations and electrical safety devices.

Inspection and maintenance of lifts with operation in the event of fire, such as lifts for use by firefighters and evacuation lifts, is covered in [BS 8899](#).

1 Scope

This British Standard gives recommendations for safe working practices (supported by training) to be undertaken by:

- a) owners of permanently installed lifts serving defined landing levels;
- b) persons having effective control of the premises where such lifts are installed; and
- c) persons responsible for, and involved in, the design, installation, commissioning, testing, maintenance, thorough examination, inspection, repair and dismantling of such lifts.

This British Standard gives recommendations for the safety of persons when gaining access to and from the work area on a lift installation and while working there. The recommendations also relate to the safety of others present in the vicinity, whether they are working or not, who could be endangered by the actions of those working on lifts.

This British Standard does not give recommendations for installation methods and procedures, nor does it give recommendations for procedures to be carried out following an accident or serious incident.

This British Standard does not cover the following types of lifting devices:

- 1) lifts that are not permanently installed;
- 2) stair lifts;
- 3) lifting platforms;

NOTE 1 Recommendations for safe working on lifting platforms are given in [BS 9102](#).

- 4) vertical lifting appliances with an enclosed carrier ("slow speed lifts");

NOTE 2 This refers to slow speed lifts designed under the Supply of Machinery (Safety) Regulations 2008 [2].

- 5) lifts moving along guide rails inclined more than 15° to the vertical; and
- 6) other lifting appliances such as paternosters, mine lifts, access lifts to workplaces, theatrical lifts, appliances with automatic caging, skips, lifts and hoists for construction sites, ships' hoists, platforms for exploration or drilling at sea, construction and maintenance appliances.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions, or limits the scope, of this document¹⁾. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Standards publications

BS 5655-6:2011, *Lifts and service lifts – Part 6: Code of practice for the selection, installations and location of new lifts*

BS 7375, *Distribution of electricity on construction and demolition sites – Code of practice*

BS 7671, *Requirements for electrical installations – IET Wiring Regulations*²⁾

¹⁾ Documents that are referred to solely in an informative manner are listed in the Bibliography.

²⁾ This document also gives an informative reference to [BS 7671:2018+A2:2022](#).

BS 8486-3:2017, *Examination and test of new lifts before putting into service – Specification for means of determining compliance with BS EN 81 – Part 3: Passenger and goods passenger lifts conforming to BS EN 81-20*

BS EN 81-20:2020, *Safety rules for the construction and installation of lifts – Lifts for the transport of persons and goods – Part 20: Passenger and goods passenger lifts*

BS EN 81-80:2019, *Safety rules for the construction and installation of lifts – Existing lifts – Part 80: Rules for the improvement of safety of existing passenger and goods passenger lifts*

BS EN 60529:1992+A2:2013, *Degrees of protection provided by enclosures (IP Code)*

BS EN 60903, *Live working – Gloves of insulating material*

BS EN 61111, *Live working – Electrical insulating matting*

BS EN IEC 60900, *Live working – Hand tools for use up to 1 000 V AC and 1 500 V DC*

BS EN ISO 14798, *Lifts (elevators), escalators and moving walks – Risk assessment and reduction methodology*

BS ISO 7010, *Graphical symbols – Safety colours and safety signs – Registered safety signs*

DD CEN/TS 81-83, *Safety rules for the construction and installation of lifts – Existing lifts – Part 83: Rules for the improvement of the resistance against vandalism*

Other publications

[N1] HEALTH AND SAFETY EXECUTIVE (HSE). *Electrical test equipment for use on low voltage electrical systems*. GS38. Fourth edition. Sudbury: HSE Books, 2015.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 authorized person

person who is permitted, by the natural or legal person responsible for the operation and use of a lift, to access restricted areas (machinery spaces, pulley rooms and well) for maintenance, inspection or rescue operations

3.2 car

part of the lift which carries the passengers and/or other loads

NOTE This is referred to as a “carrier” in the *Supply of Machinery (Safety) Regulations 2008* [2].

[SOURCE: [BS EN 81-20:2020](#) ©, 3.6, modified – note added]

3.3 competent person

person, suitably trained, qualified by knowledge and practical experience, provided with the necessary instructions to enable the required work to be carried out safely

NOTE Attention is drawn to the *Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)* [3], which defines a Competent Person as having a specific role for thorough examination. A “competent person” as defined in this British Standard is not the same as the “Competent Person” as defined in LOLER.

3.4 construction site

place where construction work is being carried out or to which workers have access, excluding any workplace within it that is set aside for purposes other than construction work

3.5 isolating switch

electrical device for disconnecting the lift drive and controls in addition to the main switch, or for disconnecting a circuit not fed from the main switch

3.6 landing

space at the entrance to a lift at any defined level to permit the manoeuvring, boarding and alighting of persons and/or goods

3.7 lift

permanent lifting equipment, comprising a guided car, serving defined landing levels and designed for the transportation of persons and/or goods, moving along guide rails inclined not more than 15° to the vertical

3.8 lift contractor

party that is contracted to supply, install, modernize, repair, maintain or dismantle a lift

3.9 lift machine

unit, including the motor, which drives and stops a lift

3.10 lock-off device

device to prevent unauthorized reconnection of electrical energy

NOTE This can be a padlock that prevents movement of the operating handle of the main switch or any isolating switch.

3.11 machinery space

volume(s) inside or outside of the well where the machinery as a whole or in parts is placed, including the working areas associated with the machinery

NOTE This includes a machinery cabinet with its associated working area(s), such as landings where lift controls or emergency and test panels are situated, or situations where controller cabinets are placed in separate rooms.

[SOURCE: [BS EN 81-20:2020](#) ©, 3.29, modified – note amended]

3.12 main switch

electrical device for disconnecting the lift from the main electrical supply that cannot be assumed to disconnect any of the following:

- a) socket outlet on the car top;
- b) socket outlet in the pit;
- c) socket outlet(s) in the machinery space and any pulley room;
- d) lighting in the machinery space and any pulley room;
- e) lighting in the well;
- f) car lighting or ventilation;
- g) alarm and communication device;
- h) group interconnections;
- i) supply to any emergency electrical operation equipment; and
- j) sources of stored electricity

3.13 maintenance

all the necessary operations to facilitate the safe and intended functioning of an installation and its components after the completion of the installation and throughout its life cycle

NOTE Maintenance can include:

- a) lubrication, cleaning, etc.;
- b) checks;
- c) rescue operations;
- d) the operations of setting and adjustment; and
- e) repair or changing of components, which can occur due to wear or tear and do not affect the characteristics of the installation.

[SOURCE: [BS EN 81-20:2020](#) ©, 3.30, modified – “may” changed to “can”]

3.14 multiple installation

number of lifts installed in separate or common wells and/or sharing a common machinery space

3.15 observation lift

lift with a glazed or partially glazed car, within a glazed or partially enclosed well

3.16 owner

legal entity having right of possession of a lift and responsibility for its safe working

NOTE The owner is usually the landlord or proprietor of the building in which a lift is situated. The person having responsibility for a lift on a day-to-day basis is likely to be the building occupier.

3.17 passenger

person transported by a lift in the car

3.18 permit to work

authority in writing that includes details of:

- a) work to be undertaken;
- b) procedures involved;
- c) precautions needed;
- d) emergency procedures to be in place;
- e) persons to undertake the work;
- f) timescale of the work to be undertaken; and
- g) restrictions on the workplace or equipment

3.19 pit

part of the well situated below the lowest landing served by the car

[SOURCE: [BS EN 81-20:2020](#) ©, 3.36]

3.20 positive drive lift

lift (including hydraulic and drum drive) suspended by chains or ropes and driven by means other than friction

3.21 pulley room

room, not containing a lift machine, in which pulleys are located

NOTE This room can also contain other equipment, such as the overspeed governor(s) and electrical equipment associated with a lift.

3.22 rated load

load that the equipment has been designed to carry

3.23 risk assessment

comprehensive estimation of the probability (likelihood) and the degree (severity) of possible injury or damage to health or property, in order to identify appropriate protective measures

3.24 safe system of work

formal procedure, resulting from a risk assessment, which specifies safe methods of work to eliminate relevant hazards to the task being undertaken and to minimize the remaining risks

3.25 stopping device

bistable electric safety device for stopping a lift and maintaining it out of service

NOTE This is also known as a stop switch.

3.26 user

person making use of the services of a lift installation, which includes passengers, persons waiting at the landings and authorized persons

NOTE A user is not necessarily the same as a passenger.

[SOURCE: [BS EN 81-20:2020](#) ©, 3.64, modified – note added]

3.27 well

space in which the car, the counterweight or the balancing weight travels

NOTE This space is normally bounded by the bottom of the pit, the walls and the ceiling of the well.

[SOURCE: [BS EN 81-20:2020](#) ©, 3.65, modified – additional information moved into a note]

3.28 worker

person undertaking work on a lift or related equipment within a well (including the pit and car top), machinery space, pulley room or lift lobby

NOTE This can include persons undertaking any of the following:

- a) the release of trapped passengers;
- b) maintenance activities;
- c) inspection, examination and testing;
- d) cleaning; and
- e) other tasks requiring access to the lift spaces.

3.29 workplace

premises or part of premises where work is carried out

NOTE 1 This can include:

- a) any place that is accessible to those at the workplace; and*
- b) any means of access to/from the workplace, e.g. staircase, corridor.*

NOTE 2 A workplace is usually non-domestic, although the term can refer equally to domestic premises.

3.30 work platform

designated area, moving or fixed, for carrying out work tasks

4 Core principles supporting safe working on lifts

COMMENTARY ON CLAUSE 4

This clause sets out core principles that are applicable in all situations. These principles are supported by the recommendations for specific safety management responsibilities that are given in [Clause 5](#).

4.1 Owner's safety survey

COMMENTARY ON 4.1

The risks to those using and working on lifts are strongly influenced by the availability of protective measures included as part of a lift. The state of the art in lifts, represented by the standards for new lifts, has improved over many years. This means that for lifts installed to earlier standards, there might be a gap between the modern state of the art and the level of protection for users and workers on a lift. [BS EN 81-80:2019](#) provides a useful tool to survey and prioritize safety improvement measures.

[BS EN 81-80:2019](#) is not a specification. It can be used as a guideline for:

- owners to upgrade their existing lifts;*
- owners' representatives and consultants; and*
- maintenance companies and/or inspection bodies to inform the owners on the safety level of their installations and to propose risk reduction measures.*

Attention is drawn to duties for owners under the Health and Safety at Work etc. Act 1974 [\[4\]](#) and the Provision and Use of Work Equipment Regulations 1998 [\[5\]](#).

The owner of a lift that was placed into service before 1 September 2017 (that was not installed to [BS EN 81-20](#)) should arrange for a survey of the lift to be undertaken to identify hazards and suitable safety improvements to address these hazards. The identification of hazards should be based on the list of significant hazards given in [BS EN 81-80:2019](#), and safety improvements should be identified using the methodology given in [BS EN 81-80:2019](#).

NOTE 1 The list of significant hazards from [BS EN 81-80:2019](#) is given in [Annex A, Table A.1](#); suggested improvements for each of these is given in [BS EN 81-80:2019](#). A checklist of further suggested improvements for use in the UK is given in [Annex A, Table A.2](#).

The survey of a lift should identify priorities (low, medium or high) based on the particular and specific circumstances of an installation. The owner should plan and implement any necessary risk reduction measures according to the priorities identified in the safety survey.

NOTE 2 The measures described in [BS EN 81-80:2019](#) assume that lifts have been installed in accordance with the relevant standards.

NOTE 3 Attention is drawn to the possibility that lifts might not be in accordance with the relevant standards. Since 1 July 1999, new lifts have followed the Lifts Regulations 1997 [1] and the Lifts Regulations 2016 [6], which allow for deviations from harmonized/designated standards, and for these alternative solutions to be approved and design certification to be issued.

Where protective measures have not been installed as part of a lift installation, the measures recommended in [Clause 5](#) should be taken unless the owner's risk assessment (see [5.4.1](#)) identifies that the relevant hazard is addressed by alternative means.

NOTE 4 Alternative means include:

- means subject to type examination or design examination for the lift when installed; and
- other means where the owner's risk assessment demonstrates at least an equivalent level of safety to that of the new lift and the recommendations in [BS EN 81-80:2019](#).

Where the owner's risk assessment identifies specific hazards (e.g. the absence of a car top inspection control station), alternative means should be agreed for safe working.

NOTE 5 [Annex B](#) describes enhancements that can be made to car top inspection control stations.

4.2 Safety signs

Safety signs should be displayed where appropriate.

NOTE Recommendations for specific safety signs are given at relevant points throughout [Clause 5](#). A set of typical safety signs is given in [Annex C](#).

4.3 Health and safety file

COMMENTARY ON 4.3

The provision of appropriate information and instructions to those working on lifts is a prerequisite for their safety.

The Construction (Design and Management) Regulations 2015 (CDM Regulations 2015) [7] apply to all construction work, including dismantling. In relation to lifts, the CDM Regulations 2015 apply to the installation of new lifts in new or existing buildings, and might apply to the modernization of existing lifts depending on the scope of the modernization work. The CDM Regulations 2015 impose duties on clients, designers and contractors. The client is required to appoint in writing a suitably qualified Principal Contractor and Principal Designer.

NOTE The CDM Regulations 2015 [7] use the term "client", who is not necessarily the owner.

Not all lift work is construction work and thereby covered by the CDM Regulations 2015 [7]. The general maintenance of fixed plant, which involves adjustments, replacing parts and lubrication, is unlikely to be construction work. Consequently, the routine maintenance of lifts is not covered by the CDM Regulations 2015. Further information, and details of when the CDM Regulations 2015 might apply to lift work, can be found in HSE publication L153 [8] and industry sector guidance.

One of the duties of the Principal Designer is to prepare a health and safety file, and on completion of the project to hand this over to the client for safe keeping. Clients, designers, Principal Contractors and contractors all provide relevant information for inclusion in the file. The health and safety file contains information to allow future work on the lift, including cleaning and maintenance, to be carried out safely.

In a standalone lift project, the health and safety file comprises the operating and maintenance manual. Where the lift works form part of, for example, a new building, the operating and maintenance manual might form only a part of the health and safety file for the whole project.

The health and safety file should include at least the following information:

- a) the owner's documentation provided with a new lift (see [4.4](#));
- b) "as built" drawings and plans used and produced throughout the construction;
- c) up-to-date electrical diagrams (see [5.6.1](#));
- d) general details of the construction process and materials used, and any substances used in the construction of the well liable to give rise to a hazard;
- e) details of the equipment and maintenance facilities;

- f) maintenance requirements, including cleaning;
- g) manuals produced by specialist contractors;
- h) any special operations where a particular method needs to be adopted;
- i) details of the location and nature of services, including any hidden services in relation to a lift, and emergency and firefighting systems; and
- j) instructions for the dismantling and disposal of the equipment at the end of its working life.

Following modernization of a lift, updates to the health and safety file should be obtained from the lift contractor by the owner to cover new equipment and the changes.

The health and safety file should be retained by the owner until further work is carried out on a lift installation, when it should then be made available to the persons carrying out the work. All modifications made after the first installation, e.g. the provision of a new controller, should be recorded, and the record passed to the owner to be included in the health and safety file.

The owner should verify that potential contractors for any new work are given access to any existing health and safety file prior to bidding for, or commencement of, any work.

Following the initial installation of a lift, or after an important modification(s) (see [BS 5655-11](#) and [BS 5655-12](#)), the health and safety file should be made available by the owner to all persons who subsequently work on the lift.

4.4 Owner's documentation

COMMENTARY ON 4.4

Attention is drawn to the Lifts Regulations 1997 [1] and the Lifts Regulations 2016 [6] in respect of the requirement for the installer of a lift to provide documentation for the owner, including operation and maintenance instructions (with plans and electrical diagrams), a logbook/log card and a declaration of conformity, and to retain copies of the documentation for at least 10 years.

The owner's documentation contains important information on how certain tasks on a lift are to be completed safely, such as access and egress procedures for the car top and pit, and resetting of the lift after function checking and accessing the well. Hence it is essential that the owner retains the information provided with the new lift and makes it available to persons working on the lift.

The owner's documentation contains electrical diagrams necessary for safe working on electrical equipment (see [Annex D](#)).

Where the owner holds a copy of the maintenance instructions (including electrical diagrams), they should provide these to the lift contractor and to any other relevant person prior to the commencement of any work on a lift.

Where the owner does not hold a copy of the maintenance instructions, they should obtain a copy from the original installer.

The owner should hold a master copy of the up-to-date electrical diagrams, which should be placed in the health and safety file (see [4.3](#), [5.6.1](#) and [Annex D](#)). A copy should also be made available on site to the lift contractor. Where necessary, the owner should take steps to obtain or create up-to-date electrical diagrams.

4.5 Reporting and exchange of information

COMMENTARY ON 4.5

The exchange of reports produced by different parties, and the taking of appropriate actions on the basis of reports of safety defects, are essential to the management of lifts.

The lift contractor should provide reports of maintenance work, including recommendations for any remedial work identified. Reports should also be provided of any supplementary tests carried out that are recommended by a competent person for the safety of a lift.

NOTE 1 Attention is drawn to section 3.1 of the SAFed publication Guidelines on the supplementary tests of in-service lifts [9], which recognizes that maintenance companies can recommend supplementary tests where potential defects have been detected.

The owner should retain all reports received, and share them with others as follows.

- a) Recent reports of thorough examination should be shared with the lift contractor.
- b) Recent reports from the lift contractor should be shared with any person inspecting or carrying out thorough examination of lifts.
- c) Any call for supplementary tests from the person carrying out thorough examination should be passed to the person completing the supplementary tests, e.g. lift contractor, and the reports of supplementary tests should be passed back to the person calling for them.

The owner should review reports of thorough examination and reports of maintenance, and should address any defect affecting safety identified in the reports.

NOTE 2 Attention is drawn to the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) [3] in respect of the requirement for thorough examination and inspection. Further guidance can be found in HSE document INDG339(rev1) [10] for duty holders.

The owner should immediately inform the lift contractor of any observed malfunctioning of the lift.

4.6 Training and competence

4.6.1 General

All persons working on a lift or related equipment, including within a well, machinery space, pulley room or lift lobby, or carrying out risk assessments, should either possess demonstrable competence in basic lift safety and procedures or be under relevant supervision.

NOTE 1 Guidance on suitable basic levels of certified competence for various types of workers can be found at www.leia.co.uk/industry-qualifications.

NOTE 2 Relevant supervision may be provided by any person who possesses demonstrable competence in lift safety and procedures (see 4.6.3).

Persons without demonstrable competence in basic lift safety and procedures should not enter or work in a well, machinery space, pulley room or any part of a lift, unless:

- a) they are under the supervision of trained lift personnel at all times; or
- b) trained lift personnel have secured the lift against movement in either direction, both electrically and mechanically; or
- c) where appropriate and subject to risk assessment, a permit to work has been issued by the owner (see 5.1.4).

Where option b) is taken, trained lift personnel do not need to remain in attendance unless requested to do so, but should be informed when the work is complete so that the lift can be safely returned to service by trained lift personnel.

All persons working on lifts should undertake continuing professional development (CPD), including toolbox talks where appropriate, and should have a regular review of training needs including health and safety training, general skills training, technical training and product-specific training.

NOTE 3 Additional recommendations for owners are given in 4.6.2. Additional recommendations for persons carrying out specific tasks are given in 4.6.3, 4.6.4, 4.6.5 and 4.6.6.

4.6.2 Owner

Clear instructions relating to site emergency and first aid procedures should be issued by those responsible for the site, namely the owner or principal contractor, to employees, visitors, contractors and other authorized persons. Any specific procedures that apply to the premises should also be

included in these instructions. The instructions should be supplemented, where appropriate, by a site-specific safety awareness/site induction training regime and safe system(s) of work.

Specific training for all types of lift in the premises should be provided to persons who are authorized to carry out the release of trapped passengers, and the competence of those persons should be verified. Any training should be delivered by persons who have been trained as trainers and who have knowledge of the lifts and rescue procedures.

NOTE 1 Lifts of different types are likely to have different procedures for the release of trapped passengers, which would be covered by specific training. The term “trapped” is sometimes also referred to as “shut-in”, e.g. by the fire and rescue services.

The owner should only authorize persons who are verified as being capable and competent to carry out the rescue of trapped passengers. Where the owner wishes to use their staff, the owner should:

- a) have an assessment made of their staff’s suitability for the tasks to be undertaken; and
- b) determine that the risk to passengers being trapped in the car is greater than the risks of using non-lift personnel to release them.

The owner should verify that sufficient trained persons are available to effect safe rescue at all times (see [5.10](#)).

Such persons should be made aware that this training is limited to release activities on the lifts on which they have been trained and that this does not authorize them to carry out any additional activities. Training should cover the release procedure for passengers and also possible complications that might arise during a release, e.g. failure of the procedure to cause movement of a car.

NOTE 2 The owner might typically source training in the release of trapped passengers from a maintenance provider or a specialist training provider, when the maintenance provider is unable to provide this service. Procedures recommended for the release of trapped passengers are given in [5.10](#).

The skills of persons authorized to undertake rescue of trapped passengers should be maintained by refresher training. The competency of all trained persons should be verified and documented annually. The documentation should list the competencies achieved relating to the type of equipment upon which the training was carried out, and should include a record of training undertaken.

4.6.3 Lift installation, maintenance and repair personnel

Persons installing, maintaining and repairing lifts should be suitably trained, qualified by knowledge and practical experience, provided with necessary instructions and supported within their organization to enable the required operations to be safely carried out.

NOTE Guidance on suitable basic levels of certified competence for persons installing, maintaining and repairing lifts can be found at www.leia.co.uk/industry-qualifications.

4.6.4 Lift testing personnel

Persons testing lifts should be suitably trained on the specific products that they are working on, qualified by knowledge and practical experience, provided with necessary instructions and supported within their organization to enable the required operations to be safely carried out.

NOTE Guidance on suitable basic levels of certified competence for persons testing lifts can be found at www.leia.co.uk/industry-qualifications.

4.6.5 Lift inspection and thorough examination personnel

Persons inspecting or carrying out thorough examination of lifts should, as a minimum stipulation, be qualified in their practising professions. They should also possess knowledge of the equipment they are inspecting or surveying, and demonstrable competence in the safe access to/from and the safe operation of all lift equipment.

Whilst such persons might not have demonstrable competence as described in [4.6.3](#) or [4.6.4](#), they should at least be competent for the specific activities they undertake on lifts. They should also possess demonstrable competence in basic lift safety and procedures or be under relevant supervision as described in [4.6.1](#).

NOTE 1 Persons inspecting or carrying out thorough examination of lifts might not have been trained in the lift industry, but might come from an associated activity. They might need to seek appropriate safety training when first practising in the lift industry.

NOTE 2 Further information on the SAFed Competency Scheme can be found at www.safed.co.uk/media/attachments/2022/06/19/ss01-issue-05-06.04.2016-mh-jr.pdf.

4.6.6 Consultants and tradespersons

Consultants, and tradespersons such as general cleaners, glass cleaners, rubbish clearers, painters, electricians, welders and builders, working on lift equipment should be competent in their practising professions or trades. They should be under supervision of their own employer.

Whilst such persons might not have demonstrable competence as described in [4.6.3](#), [4.6.4](#) and [4.6.5](#), they should at least possess demonstrable competence in basic lift safety and procedures or be under relevant supervision as described in [4.6.1](#).

5 Safety responsibilities of owners and persons working on lifts

COMMENTARY ON CLAUSE 5

Lifts are typically installed on site comprising components from many suppliers and, even if assembled in a factory, have their final installation on site. Thus, no two lifts are identical. For example, they are not similarly positioned; the machinery spaces are not the same size or shape, and are not segregated, illuminated or located within similar environments.

The subclauses in [Clause 5](#) provide recommendations for safe working:

- *to be addressed between the owner of a lift and the person working on a lift;*
- *specifically for the owner; and*
- *specifically for the person working on a lift.*

The recommendations in this clause are supported by the core principles set out in [Clause 4](#).

5.1 Organizational arrangements

5.1.1 Housekeeping

The owner, in conjunction with the lift contractor, should establish procedures for:

- a) the avoidance of build-up of waste materials in wells, machinery spaces, pulley rooms and any other space in which lift equipment is present; and
- b) the control and disposal of waste and other items and substances that are potentially injurious to health and safety.

NOTE Attention is drawn to the Control of Asbestos Regulations 2012 [\[11\]](#) and the Control of Substances Hazardous to Health Regulations 2002 [\[12\]](#). Examples of potentially hazardous items and substances include hypodermic needles, human waste, animal waste and radioactive materials.

The owner should establish procedures to prevent the well, machinery spaces, pulley rooms and lift lobbies from being used to store non-lift materials.

5.1.2 Effects on the occupants

Potential disruption to the occupants of the premises from the lift work (e.g. from dust, noise or access restrictions) should be assessed and minimized. The owner should advise the occupants when any such disruption is likely to occur.

5.1.3 Access to tools, equipment and materials

Arrangements should be made between the owner and the lift contractor for:

- a) safe access to all tools, equipment and materials at workplaces;
- b) the provision of suitable and clearly identified storage space for tools, equipment, materials and any portable access equipment;
- c) the provision of alternative access routes as might become necessary during the works being undertaken; and
- d) the provision of access routes through private premises to lift workspaces.

NOTE These are some elements of the provision of safe systems of work (see [5.1.4](#)).

5.1.4 Safe systems of work

There should be a safe system of work (see [3.24](#)) for all authorized persons (see [5.2.1](#)) undertaking tasks within designated workplaces.

NOTE A safe system of work could include the use of lock-off/tag-out devices on all main switches.

The details of any permits to work that might be required, and the conditions imposed by them (e.g. workplace access conditions), should be made known to the relevant persons.

Where the owner has a permit to work system in place, the lift contractor should obtain a permit to work from the owner. After the owner has issued a permit to work, no further permits should be issued for work on the lift unless discussed and agreed with the lift contractor.

5.1.5 Asbestos

COMMENTARY ON 5.1.5

Where buildings were constructed after 2000, the presence of asbestos is very unlikely; however, asbestos was used extensively prior to this date.

Attention is drawn to the Control of Asbestos Regulations 2012 [\[11\]](#) and supporting documents, which require the duty holder (typically the owner or leaseholder) to identify and manage any asbestos-containing materials in their building.

The identification of asbestos-containing materials usually involves undertaking a management survey, with any such materials being recorded on a register that details the materials, their condition and their location. This information can then be shared with any lift contractors so they are able to plan and manage their work safely.

For lift maintenance work, a thorough management survey is sufficient in most cases. However, where more extensive works are carried out (such as major refurbishment), where hidden areas might be exposed or the building fabric be disturbed, a more intrusive localized refurbishment and demolition survey might be required.

As the register is based upon a survey, it is essential that all lift areas are thoroughly surveyed and the findings recorded in the register. HSE publication HSG264 [\[13\]](#) identifies areas to be inspected as part of a management survey, including lift shafts.

The owner should arrange with the lift contractor for safe access to be granted to persons undertaking surveys to identify the presence of asbestos-containing materials.

Visiting lift personnel and tradespersons should be advised of the location and type of asbestos so they can plan their work accordingly.

All lift personnel and tradespersons should be regularly trained in asbestos awareness.

5.1.6 Removal of a lift from service

Before removing a lift from service, any person doing so should advise the owner's site representative or the person in charge of lift works, as appropriate, of the intention to do so.

A temporary safety sign should be displayed where a lift is removed from service to warn others that the lift is out of service (see [Annex C, Figure C.1](#)).

Where power is not required for the work to be carried out, the power should be isolated by turning off the main switch, securing it using a lock-off device and attaching a tag explaining the reason for the isolation. If the main switch does not have a lock-off facility, alternative means should be used to physically prevent power from being reinstated inadvertently by others.

In the event that a person working on a lift determines that the lift is in a dangerous condition, or likely to degrade to a dangerous condition before repairs can be made, then all of the following recommendations should be met.

a) The person working should do the following in relation to the condition of the lift:

- 1) report the situation to the owner or owner's site representative; and
- 2) record and leave a clear description of the reason in writing on the main switch.

NOTE 1 It is good practice to include identification and contact details of the person making the report.

b) Either:

- 1) if a procedure has been previously agreed between the owner and worker as detailed in [4.5](#) and [5.3](#), this should be followed; or
- 2) if there is no previously agreed procedure between the owner and worker, then the person working should switch off the lift but not immobilize it.

NOTE 2 A tie-wrap or padlock can be used as a means of securing the switch in the OFF position, with any padlock key being given to the owner's site representative.

c) The owner should not reinstate the lift until measures have been taken to allow the lift to be safely returned to service (see [5.1.7](#)).

5.1.7 Returning a lift to service

A lift should not be returned to normal operation after completion of work until it has been ascertained that no persons, tools, temporary access equipment, etc., remain within the well and that any shorting links or temporary modifications made as part of fault-finding are removed. Any equipment, e.g. a mechanical restraint, should be replaced in its proper storage position. Any newly installed parts should be tested and checked using the manufacturer's recommended tests, to verify that they operate correctly and that they meet at least the same level of safety as the lift when installed.

Following any change(s), including replacement, repair, modification, adjustment or repositioning of equipment of a lift, and before the lift is returned to service, checks and tests should be carried out to verify that the lift is safe to return to service. The checks and tests to be carried out should be determined through risk assessment and the manufacturer's instructions, and recorded before the lift is put back into service.

NOTE Attention is drawn to the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) [3] in respect of thorough examination following exceptional circumstances, such as a major change or if the lift is out of use for a long period.

5.1.8 Well-being of persons working alone

COMMENTARY ON 5.1.8

It is very common for persons in the lift industry to work alone in occupied and unoccupied buildings to carry out a variety of tasks, including:

- *maintenance activities;*
- *minor repairs;*
- *thorough examination carried out under the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) [3];*
- *inspections; and*
- *surveys and audits.*

Before any persons are authorized to work alone on a lift, a full site/task-specific risk assessment should be carried out and relevant control measures should be implemented.

All persons should be trained for the tasks they intend to carry out. They should be approved by their employer and authorized by the lift owner to carry out the tasks.

The employer of the person who is to work alone should retain the risk assessment and any accompanying method statement for inspection by the owner. The employer should verify that the control measures are adopted.

Where hazards exist making it unsafe for a person to work alone, the worker should be accompanied by another person who has received appropriate instruction and training.

NOTE This is an element of the provision of a safe system of work (see 3.24).

When an authorized person is working alone in an occupied building, at least the following procedures and provisions should be adopted.

- a) Before commencing work, the person working alone should register their presence with the owner's site representative in accordance with 5.3.3.
- b) Suitable arrangements should be made to confirm the continued well-being of the person at periodic intervals as identified by the risk assessment.
- c) Any persons checking the well-being of persons working alone should have knowledge of how to organize assistance in the event of an emergency.
- d) The specific arrangements and frequency for confirming the well-being of the person working alone should be described in the relevant safe working procedure.

Where a person is working alone in an unoccupied building, they should inform a responsible person off-site, such as their manager, of their proposed movements during this period.

5.1.9 Well-being of a person working with others

COMMENTARY ON 5.1.9

Some tasks cannot be carried out safely by one person. It is recognized that two or more persons working together can create additional risks. Further risks can be created owing to older lifts not possessing the safety features provided by BS EN 81-20:2020.

Hazards in work areas can vary, e.g. in occupied/unoccupied buildings, premises being refurbished, construction sites and industrial environments.

When more than one person is working within the well, each person should use the necessary means to prevent lift movement, e.g. lock-off/tag-out procedures and use of stopping devices.

Persons working in the well should not assume that others have carried out these actions on their behalf.

Where more than one person is working on a lift, a reliable communication system between all persons should be established, and one person should be nominated to direct all lift movements.

When work in the pit is being carried out at the same time as work on the car top (see [5.7.2](#)), one person should lead the activity.

5.2 Responsibility for work

NOTE Recommendations in respect of training and competence are given in [4.6](#).

5.2.1 Owners

COMMENTARY ON 5.2.1

Owners have a responsibility to select contractors whose employees carry out the work safely. HSE publication INDG368(rev1) [[14](#)] explains the responsibilities that the owner and the contractor have under health and safety law, in order to take the right precautions to reduce the risks of workplace dangers to employees and the public.

The owner should appoint only authorized persons (see [3.1](#)) to carry out any work on a lift.

NOTE 1 Attention is drawn to the Workplace (Health, Safety and Welfare) Regulations 1992 [[15](#)] and the Provision and Use of Work Equipment Regulations 1998 [[5](#)].

The owner or the site representative in charge of the work site should appoint a person to be responsible for, at least, the following aspects of the lift work:

- a) familiarization with the relevant parts of any safety assessment undertaken by the lift contractor;
- b) familiarization with the lift work area from the commencement of the lift work, including the effect that the lift work is likely to have on other persons in the area; and
- c) handing the lift work area back to the owner in a safe condition on completion of the lift work.

The owner or the site representative in charge of the lift works should liaise (see [5.3](#)) with the lift contractor's representative or other persons authorized to carry out work on a lift installation, in order to understand the risks that could arise as a result of the work and agree and manage the necessary control measures.

The owner should not appoint more than one contractor to carry out work on a lift, where this can be avoided. Where more than one contractor is appointed, the owner should clearly inform each party of the work being carried out by the other party(ies). Where more than one contractor is working at the same time, the owner should coordinate the contractors' work.

NOTE 2 This could involve, for example, issuing permits to work to the contractors (see [5.1.4](#)).

5.2.2 Workers

A suitably qualified person should be appointed to be responsible for all lift work relating to a lift installation and should be fully aware of their duties. This person should ascertain who is acting on behalf of the owner in order that they can report the start, progress and completion of the work.

Any work carried out on lifts should be performed only by competent persons, supervised and instructed on the work and on how it is to be carried out safely. The instructions should:

- a) where necessary, be in the form of written safe systems of work and/or method statements, which might already be included in training programmes; and
- b) address the safety of other persons who could be at risk even if they are not involved in the actual work being undertaken on a lift, e.g. persons intending to travel in the lift.

After carrying out a risk assessment (see [5.4](#)), the lift contractor or other persons authorized to carry out work on a lift installation should advise the owner of risks that could arise as a result of the work.

5.3 Liaison

5.3.1 General

Information and instructions should be exchanged as described in [4.4](#) and [4.5](#).

5.3.2 Owners

The owner or the site representative in charge of the lift works should nominate a person to summon emergency assistance, and determine with the lift contractor whether any special precautions or procedures are required for the works being undertaken within the premises.

NOTE Such precautions might become necessary due to the working environment, e.g. where children are present in the vicinity.

5.3.3 Workers

The contractor's site representative in charge of the lift works should establish contact with the owner's site representative in charge of the lift works. The two parties should agree a process for summoning emergency assistance when required, and any special precautions or procedures that are required for the works being undertaken within the premises.

NOTE Such precautions and procedures may be specified on any permit to work that is issued (see [5.1.4](#)).

5.4 General safety measures and risk assessment

5.4.1 Owners

The owner should undertake a risk assessment, together with any contractor, to establish measures to be taken for the safety of persons engaged in lift work and all persons using the premises and lifts. The risk assessment should address:

- a) the work activities to be undertaken; and
- b) all persons working on lifts, together with their work equipment.

Hazards relating to moving masses, rotating machinery, electrical equipment, falls from height, etc., which experience has shown to be involved in many fatal accidents, should be addressed through risk assessment.

Risk assessments on lifts should be carried out in accordance with BS EN ISO 14798.

NOTE 1 Risk assessments require periodic review to take account of changes in the equipment or environment. Improvements in technology and/or materials could reduce the element of risk beyond that achieved by any existing arrangements.

The safety measures identified by risk assessment should be implemented wherever practicable. All measures should be undertaken that could improve the safety of those persons engaged in the works or using the lifts, including any recommendations issued by the manufacturers, the maintenance company or competent persons.

NOTE 2 Attention is drawn to the Management of Health and Safety at Work Regulations 1999 [[16](#)], Regulation 3 (i), which describes the management regulation an employer is required to follow, and to the Provision and Use of Work Equipment Regulations 1998 [[5](#)].

Details of any changes to the risks that can be encountered during the progress of the works, and which become apparent from subsequent risk assessments, should be recorded in the health and safety file and made known to the owner's and the lift contractor's responsible persons.

All works should be planned in advance in order to eliminate or reduce to a controllable level the risks to those persons undertaking the works and all persons who might be affected by them.

The owner should plan the works, where appropriate, to coincide with the shut-down period of hazardous processes or when public areas are less busy or closed.

The owner should implement measures to restrict access to machinery spaces only to authorized persons or persons under the supervision of authorized persons.

The owner should provide a safe means of access to and egress from all workplaces, including for suitable access equipment where necessary.

NOTE 3 This includes the provision of access to all workplaces that is free from obstacles, tripping hazards and projections. It also includes the provision of a safe means of access through potentially hazardous areas and the provision of adequate lighting, both inside and outside a well, for access to and egress from workplaces.

Emergency lighting (see [Table A.2](#), item 12.5) and, where necessary, temporary electrical supplies should be provided for all workplaces.

NOTE 4 BS 5266-1 gives recommendations for emergency lighting.

The owner should provide safety signs for persons to follow when accessing machinery spaces (see [Annex C](#), [Figure C.2](#)).

Where work is to be carried out in a confined space, a suitable and sufficient risk assessment should be carried out by the owner to determine the precautions to be taken. Where a pit or lift area is defined as a confined space, details of these precautions should be shared with persons working on the lift.

NOTE 5 Attention is drawn to the Confined Space Regulations 1997 [17] and to the definition of a confined space contained in these regulations.

NOTE 6 Pits and lift areas, in general, are not usually confined spaces as defined in the Confined Space Regulations 1997 [17]. There are exceptions, e.g. where a lift is located within a facility dealing with hazardous chemicals or gases.

Information and instructions should be given by the owner and/or the work contractor to all occupants of the premises who might be affected whenever any works are carried out on lifts, indicating any relevant potential effects on their working environment and/or their health and safety.

The owner should implement measures to make all persons within the premises aware of the meaning of all signs displayed in lift areas and where lifts are being worked on.

The owner should take ultimate responsibility for safety signs.

NOTE 7 There are two categories of signage that might be encountered by persons in a building: those displayed where employees occupy tenant areas, and those displayed where persons enter restricted areas under supervision (see [Annex C](#)). Examples of each category are:

- a) where employees occupy tenant areas:
 - 1) lift out of service (see [Figure C.1](#));
 - 2) rated load plate in the car (see [BS EN 81-20:2020](#), 5.4.2.3.2 and [BS EN 81-80:2019](#), 11.1);
 - 3) machinery space access notices (see [Figure C.2](#));
 - 4) inspection door or trap giving access to a well (see [Figure C.3](#)); and
 - 5) maximum weight of handling devices [see [BS EN 81-20:2020](#), 5.4.2.2.1b)5)];
- b) where persons enter restricted areas under supervision:
 - 1) reduced headroom (see [Figure C.4](#));
 - 2) no car safety gear (see [Figure C.5](#));
 - 3) reduced pit depth and position restraint before working (see [Figure C.6](#) and [Figure C.7](#)); and
 - 4) descending counterweight (see [Figure C.8](#)).

5.4.2 Workers

The lift contractor and others working on a lift should undertake a risk assessment, together with the owner, to establish risk reduction measures to be employed by persons engaged in undertaking the work.

If the risk assessment identifies a potential hazard or defect that cannot be mitigated through control measures, this should be notified to the owner and to the worker's employer.

NOTE 1 In such cases, it might not be possible to undertake the work until the risk has been reduced to an acceptable level. Attention is drawn to the Health and Safety at Work etc. Act 1974 [4] and the Provision and Use of Work Equipment Regulations 1998 [5].

NOTE 2 Attention is drawn to the Management of Health and Safety at Work Regulations 1999 [16], which set out the requirements for risk assessment and other matters relevant to safe working.

NOTE 3 Persons working on lifts can be exposed to risk of falling from height. Attention is drawn to the Work at Height Regulations 2005 [18] and the Work at Height Regulations (Northern Ireland) 2005 [19] in respect of the requirement for a specific assessment to be made, recorded and retained for such risks.

5.5 Personal protective equipment

COMMENTARY ON 5.5

Personal protective equipment (PPE) is equipment that workers can use or wear to guard against risks in the working environment.

Many aspects of PPE are covered by legislation. Attention is drawn to the Personal Protective Equipment at Work Regulations 1992 (as amended) [20].

Typically, PPE such as head protection, hand protection, eye protection, foot protection, hearing protection and fall protection might be provided for generic lift working environments. In some instances, e.g. in unusual working environments, a need for additional PPE might be identified by risk assessment.

5.5.1 Owners

Where it has been determined through risk assessment that there is a need for a particular type of PPE, the owner should provide that PPE to protect persons working on the lift from the hazards identified in that risk assessment.

Such equipment should be maintained in a serviceable condition and replaced as necessary in line with manufacturer's guidelines.

5.5.2 Workers

Where it has been determined through risk assessment that there is a need for a particular type of PPE, it should be used as required and instructed.

Such equipment should be inspected before every use to verify that it is in a serviceable condition. If it is not in a serviceable condition, it should be taken out of service.

5.6 Electrical supplies and equipment

5.6.1 General

Electrical diagrams for each lift installation should be provided at handover by the installer. They should be kept up to date and should be available to all relevant parties (see 4.3 and 4.4).

Any subsequent modifications to any part of the electrical power and the lift electrical circuits should be appropriately authorized, and legibly recorded on the electrical diagrams by the person responsible for making the modifications.

Any such modifications should be subject to recorded design risk assessment. The person responsible for these modifications should inform the owner of the modifications.

WARNING. Inaccurate electrical diagrams can lead to many risks, including:

- risks to workers and users from incorrect operation or bypassed electrical safety devices following electrical work incorrectly undertaken due to working from inaccurate diagrams;
- risks to workers from devices such as inspection control stations being connected incorrectly and therefore not operating correctly or being properly interlocked; and
- risk to workers from the electrical equipment itself, including the risk of electrocution.

5.6.2 Owners

NOTE 1 The integrity of the electrical supply is solely the responsibility of the owner.

The owner should give the lift contractor access to the lift electrical supplies.

The owner should verify that existing permanent electrical supplies, conductors and their terminations (which might give rise to danger) are:

- a) of the appropriate rating;
- b) insulated;
- c) inspected and tested at regular intervals, and when there is any change in the electrical supply, by a competent electrician in accordance with [BS 7671](#); and
- d) installed in accordance with the edition of [BS 7671](#) that was current at the time of installation or modification.

The frequency of inspection and testing of the electrical installation should be determined, taking into account the type of installation, its location and the frequency and level of the maintenance.

Where inspection and testing is carried out, the owner should obtain an electrical installation condition report detailing the condition of the supply. The owner should make the report available to the lift contractor.

NOTE 2 The requirements for testing and documentation are defined in [BS 7671:2018+A2:2022](#), Chapter 65, and IET Guidance Note 3:2022 [21].

The owner should arrange for a risk assessment to be carried out regularly on all electrical equipment associated with a lift installation, to verify that all precautions have been taken to eliminate or minimize the risks to the health of all persons working on such equipment.

NOTE 3 Attention is drawn to the Electricity at Work Regulations 1989 [22] and HSE publication HSR25 [23].

A main switch should be located in the lift machinery space in accordance with [BS EN 81-80:2019](#), 9.4 (see also [Table A.1](#), item 9.4, and [Table A.2](#), item 12.11). The main switch should have an appropriate level of electrical protection and should have a means to allow workers to attach their own lock-off device.

Before making any modifications or changes to the electrical supply (e.g. voltage reduction systems, addition of back up secondary power supply, or automatic UPS systems), the owner should notify the lift contractor that such modifications or changes are to be made. All such modifications or changes should be discussed with the lift contractor before being applied, to determine whether they are compatible with the electrical requirements of the lift.

All electrical equipment should be protected against direct contact to at least classification IP2X as defined in [BS EN 60529:1992+A2](#).