



Knowledge Session 1

Legislation, health, and safety

Agenda

- Knowledge Sessions Evidence 1 – 8 – Why?
- Legislation, HASWA, Building Safety Act 2022
- Building Safety Regulator, Fatal Accident 2021/2022
- Health and Safety Recap, Criminal & Civil Law, Statutory Instruments, PUWER, LOLER
- National Occupational Standards
- Competence v Compliance, management, company, Individual, others, revalidation
- Behavioural Competence - BSi 8670
- Bsi 8672 – Principal Contractor
- Learning and Teaching Styles
- Question Paper

Knowledge Session 1 & 2

(1)

Legal, Law, Standards.

- Legislation, health, and safety.
- National Occupational Standards
- Competence management, company, own, others, revalidation
- Behavioural Competence
- Learning and development standards 1-13

(2)

Fire Safety

- BS 9999: Fire Safety in the design, management, and use of buildings
- Foundation principles of fire safety, chemistry, structure, escape, behaviour, design, fire suppression, growth and spread.
- Fire protection technologies, maintaining compartmentation, heat and smoke control, fire prevention.

Knowledge Session 3 & 4

(3) Ventilation

- Types, natural, mechanical, systems,
- Equipment, and components, AHU, Fans,
- FCU, VAV, attenuators, diffusers, VCD
- LEV systems
- Filtration, NAAD 21 - Grease, types of filters, grease, access panels, kitchen extraction,

(4) Ventilation

- NAAD 21 – Air, indoor air quality, legal requirements,
- CDM, BS EN 15780, 100% fresh air to recirculation, monitoring and testing methods, dust, microbiological, virus detection,
- methods in cleaning ventilation systems,
- components, inlet louvres, air terminal devices, plenums, flexible duct.

Knowledge Session 5 & 6

(5) Ventilation

- Fire resisting ductwork, passive fire protection systems, stability, integrity, and insulation.
- Standards, regulations, testing, and codes.
- Systems, dual, smoke extract, pressurisation, kitchen, car park.
- Construction types, supports, fixings, fire compartments and penetration seals.
- Third party certification schemes, inspections, assessments.

(6) Fire and Smoke Dampers

- Fire, reality, cost, heat & toxicity, spread, Fire stopping/compartimentation.
- Fire damper or smoke control damper? Product, classification, and fire test standards.
- Integrity (E), Insulation (I), smoke leakage (S), classification periods. Tested installation distances, practical installation dimensions.
- Types, regulations and codes, design, selection, and specifications. Walls, floors,
- Manufacturer's instructions, installation, check list, handover information.
- Inspection and maintenance.

Knowledge Session 7 & 8

(7) Ventilation

- Inspection & pre-commission, leakage testing DW143, systems, low, medium, high, supply, extract, re-circulation,
- LEV, the systems design, organisational procedures, industry standards and practises, Sensors, actuators, access doors
- Testing, adjusting, balancing, Isolation, variation, documentation.

(8) Decommission/Commission

- Defining requirements, planning, preparing, scheduling, risk analysis, waste minimization, prevention, containment, reutilization, and consolidation.
- Approved Documents, building regulations, types of commissioning, TAB, quantitative performance, balancing devices, airflow measurement, pressure, procedures, control systems, VAV, terminals, traversing, noise, and domestic.

On June 14 , 2017 a fire broke out in Grenfell Tower, London, which resulted in the death of 72 people.

In the immediate aftermath the UK Government commissioned Dame Judith Hackitt MBE to undertake an Independent Review of Building Regulations and Fire Safety to develop recommendations in order to prevent a similar tragedy from happening again. Both the interim and final reports published under **Dame Judith Hackitt's** supervision identified serious shortfalls in the competence of persons involved at almost every stage of the design, construction, management and operation of Grenfell Tower. The review concluded that a number of actions were needed to improve, sustain and assure building safety competence.



Dame Judith Hackitt

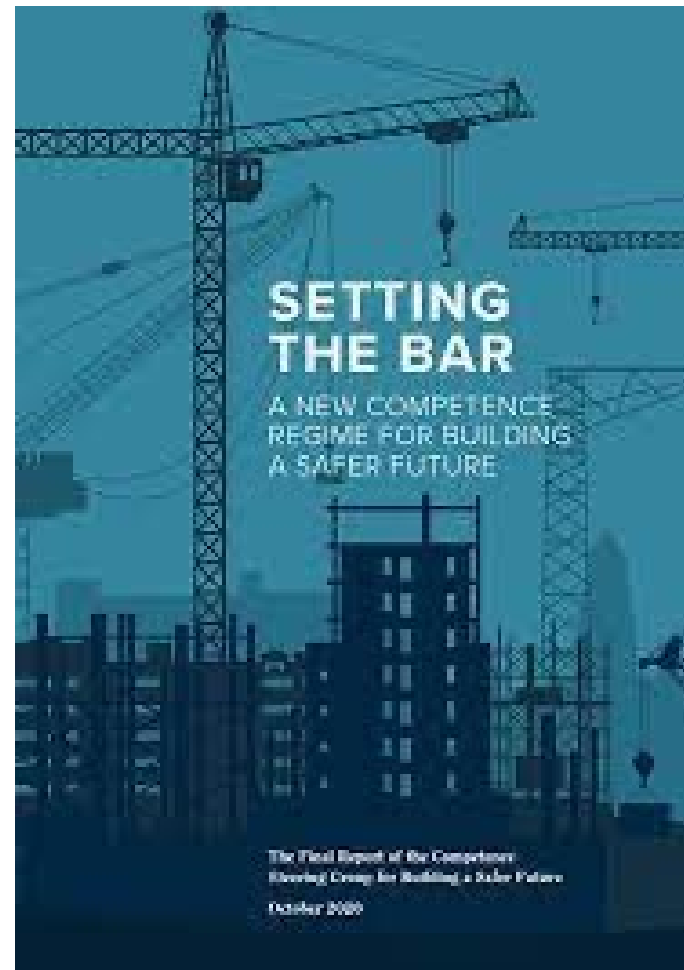
A cultural and behavioural change of similar magnitude is now required across the whole sector to deliver an effective system that ensures complex buildings are built and maintained so that they are safe for people to live in for many years after the original construction. The mindset of doing things as cheaply as possible and passing on responsibility for problems and shortcomings to others must stop

Building a Safer Future

Independent Review of Building Regulations and Fire Safety:
Final Report

May 2018
Dame Judith Hackitt DBE FREng

Cm 9607



Steering Group on Competence
for Building a Safer Future

RAISING THE BAR INTERIM REPORT

Improving Competence
Building a Safer Future

August 2019

In response to Dame Judith Hackitt's report and to address these failings, the Steering Group on Competence for Building a Safer Future, known as the Competence Steering Group (CSG) was established at the request of the Industry Response Group (IRG), in the immediate aftermath of the Grenfell tragedy by the MHCLG and the leading umbrella bodies in construction, to take forward recommendations set out in Building a Safer Future.

The Working Groups are:

- Overarching Competence Body (WG0)
- Engineers (WG1)
- Installers (WG2)

- Fire Engineers (WG3)
- Fire Risk Assessors (WG4)
- Fire Safety Enforcing Officers (WG5)
- Building Standards Professionals (WG6)
- Building Designers, including architects (WG7)

- Building Safety Managers (WG8)
- Site Supervisors (WG9)
- Project Managers (WG10)
- Procurement Professionals (WG11)
- Construction Products Competence (WG12).

The CSG then embarked on the challenge of raising competence standards for specific sectors. These were the ten disciplines set out in Building a Safer Future, and the CSG added two further sectors (Procurement and Products), which were considered equally important to bring about the necessary improvement.

Twelve Working Groups were therefore formed for individual sectors to develop competence frameworks, which would report to the CSG.

Subsequently, a separate group (known as WG0) was tasked to come up with recommendations for the role and remit of the overarching body (or system for overseeing competence) with an aim of driving up standards

Building Safety Act

The Building Safety Act (the “Act”) received royal assent on 28 April 2022.

The long-awaited Act is a hugely significant piece of legislation and overhauls the way residential buildings are constructed and maintained in the UK following the Grenfell Tower disaster in 2017, while protecting the rights of leaseholders.

The Act will impact all levels of the industry imposing wide-ranging new duties designed to increase the accountability, transparency and oversight of industry participants and the construction and development of higher-risk buildings.

Whilst the provisions of the Act apply to dutyholders in England, there are also provisions that apply to Wales, Scotland and Northern Ireland.



Building Safety Act 2022

CHAPTER 30

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INTRODUCTION

1 Overview of Act

PART 2

THE REGULATOR AND ITS FUNCTIONS

The regulator and its general functions

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- 4 Duty to facilitate building safety: higher-risk buildings
- 5 Duty to keep safety and standard of buildings under review
- 6 Facilitating improvement in competence of industry and building inspectors
- 7 Proposals and consultation relating to regulations
- 8 Duty to establish system for giving of building safety information

Committees

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- 10 Committee on industry competence
- 11 Residents' panel
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- 14 FSO authorised persons: assistance etc to regulator
- 15 Provision of assistance etc: supplementary
- 16 Guidance about the provision of assistance

Building Safety Act 2022



Building Safety Act 2022

35 Industry Competence

5C

(2) A “competence requirement” is a requirement relating to—

(a) the skills, knowledge, experience and behaviors of an individual;

What are the **Skills, Knowledge** and Behaviours for an Individual?

- **148 Liability relating to construction products**
- *Condition A is that, at any time after the coming into force of this section—*
 - (a) a person fails to comply with a construction product requirement in relation to a construction product,
 - (b) a person who markets or supplies a construction product makes a misleading statement in relation to it, or
 - (c) a person manufactures a construction product that is inherently defective.
- **construction product** means any formed or formless physical item, including its packaging and instructions for use, or a kit or assembly combining such items, that is placed on the market or produced for incorporation in a permanent manner in construction works.

Building Safety Bill – The Regulator (BSR)



BSR will have 3 main functions:

- overseeing the safety and standards of all buildings
- helping and encouraging the built environment industry and building control professionals to improve their competence
- leading implementation of the new regulatory framework for high-rise buildings

The new framework

The building safety reforms introduce a new regulatory framework for high-rise buildings. These include:

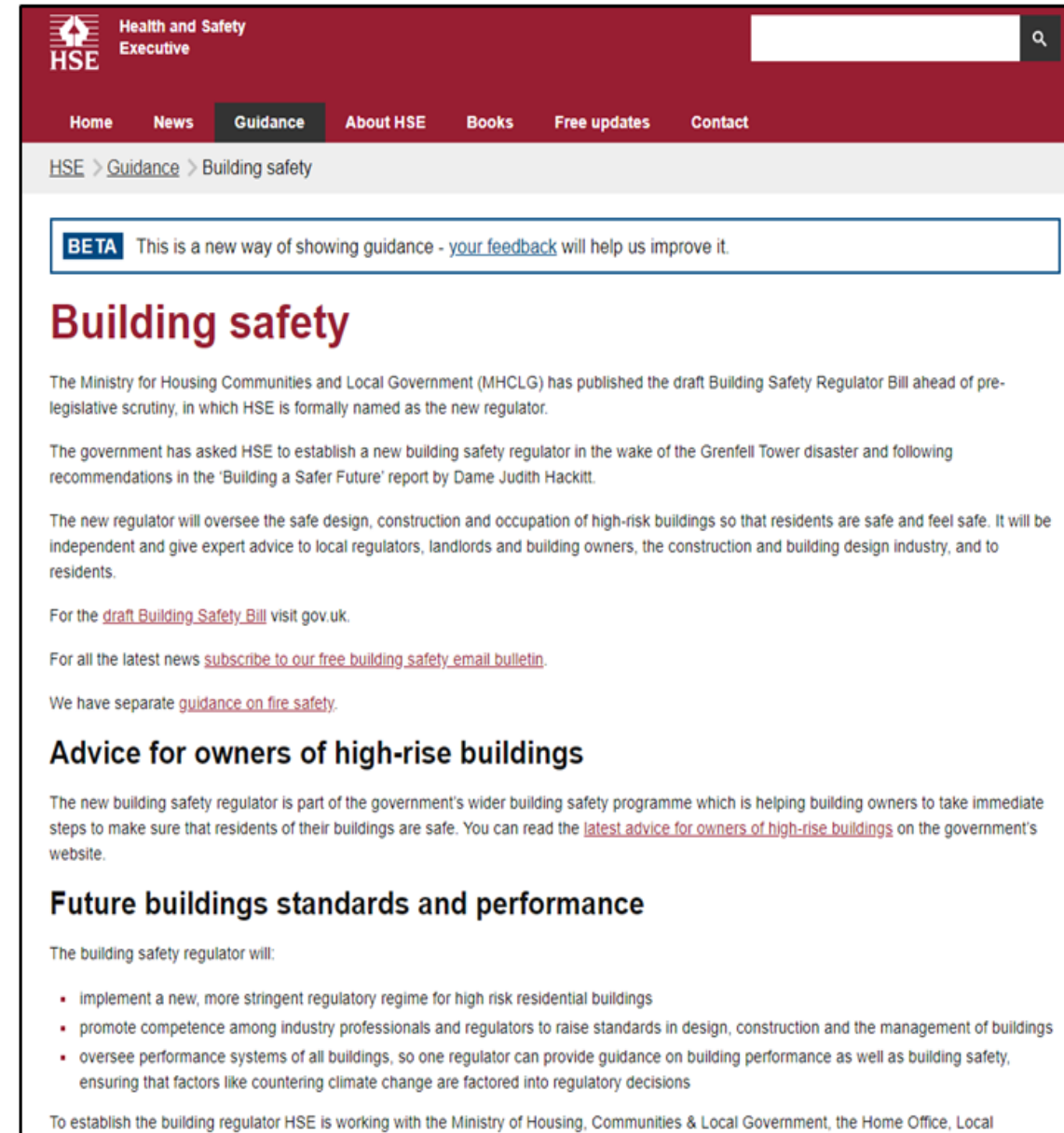
- HSE is a statutory consultee for planning applications
- BSR will become the building control authority for high-rise buildings
- decision points during design and construction
- giving duty holders clear accountability and statutory responsibilities as buildings are designed, built, refurbished and occupied
- a golden thread of building information - identified, stored and updated throughout the building's life cycle
- mandatory reporting of prescribed fire and structural safety occurrences to BSR

Building Safety Bill – The regulator (BSR)

Enforcement approach

BSR will:

- exercise its powers in line with regulatory best practice
- take a consistent and proportionate approach
- target enforcement activity at cases where action is needed
- work closely with existing regulators such as local authorities and fire and rescue authorities



The screenshot shows the HSE website's 'Guidance' page for 'Building safety'. The page features a red header with the HSE logo and navigation links. A search bar is located in the top right corner. Below the header, a breadcrumb trail reads 'HSE > Guidance > Building safety'. A blue 'BETA' banner indicates that the content is a new way of showing guidance and encourages user feedback. The main heading is 'Building safety' in a large, bold, red font. The text below explains that the Ministry for Housing Communities and Local Government (MHCLG) has published the draft Building Safety Regulator Bill ahead of pre-legislative scrutiny, in which HSE is formally named as the new regulator. It also states that the government has asked HSE to establish a new building safety regulator in the wake of the Grenfell Tower disaster and following recommendations in the 'Building a Safer Future' report by Dame Judith Hackitt. The new regulator will oversee the safe design, construction and occupation of high-risk buildings so that residents are safe and feel safe. It will be independent and give expert advice to local regulators, landlords and building owners, the construction and building design industry, and to residents. Links are provided for the draft Building Safety Bill, a free building safety email bulletin, and guidance on fire safety. The page also includes sections for 'Advice for owners of high-rise buildings' and 'Future buildings standards and performance'. The building safety regulator will implement a new, more stringent regulatory regime for high risk residential buildings, promote competence among industry professionals and regulators to raise standards in design, construction and the management of buildings, and oversee performance systems of all buildings, so one regulator can provide guidance on building performance as well as building safety, ensuring that factors like countering climate change are factored into regulatory decisions. At the bottom, it notes that to establish the building regulator HSE is working with the Ministry of Housing, Communities & Local Government, the Home Office, Local

HASWA

The Health and Safety at Work etc Act 1974 is the primary piece of legislation covering occupational health and safety in Great Britain. It provides the legal framework to promote, stimulate and encourage high standards of health and safety in places of work. It protects employees and the public from work activities.

Health and Safety Law

What you need to know



What employers must do for you

1. Decide what could harm you in your job and the precautions to stop it. This is part of risk assessment.
2. In a way you can understand, explain how risks will be controlled and tell you who is responsible for this.
3. Consult and work with you and your health and safety representatives in protecting everyone from harm in the workplace.
4. Free of charge, give you the health and safety training you need to do your job.
5. Free of charge, provide you with any equipment and protective clothing you need, and ensure it is properly looked after.
6. Provide toilets, washing facilities and drinking water.
7. Provide adequate first-aid facilities.
8. Report major injuries and fatalities at work to our Incident Contact Centre: **0345 300 9923**. Report other injuries, diseases and dangerous incidents online at **www.hse.gov.uk**.
9. Have insurance that covers you in case you get hurt at work or ill through work. Display a hard copy or electronic copy of the current insurance certificate where you can easily read it.
10. Work with any other employers or contractors sharing the workplace or providing employees (such as agency workers), so that everyone's health and safety is protected.

HASWA

What you must do

1. Follow the training you have received when using any work items your employer has given you.
2. Take reasonable care of your own and other people's health and safety.
3. Co-operate with your employer on health and safety.
4. Tell someone (your employer, supervisor, or health and safety representative) if you think the work or inadequate precautions are putting anyone's health and safety at serious risk.



Health and Safety at Work Act 1974

Anyone entering these premises
must comply with regulations
covered by the above act.

Work-related fatal injuries in Great Britain

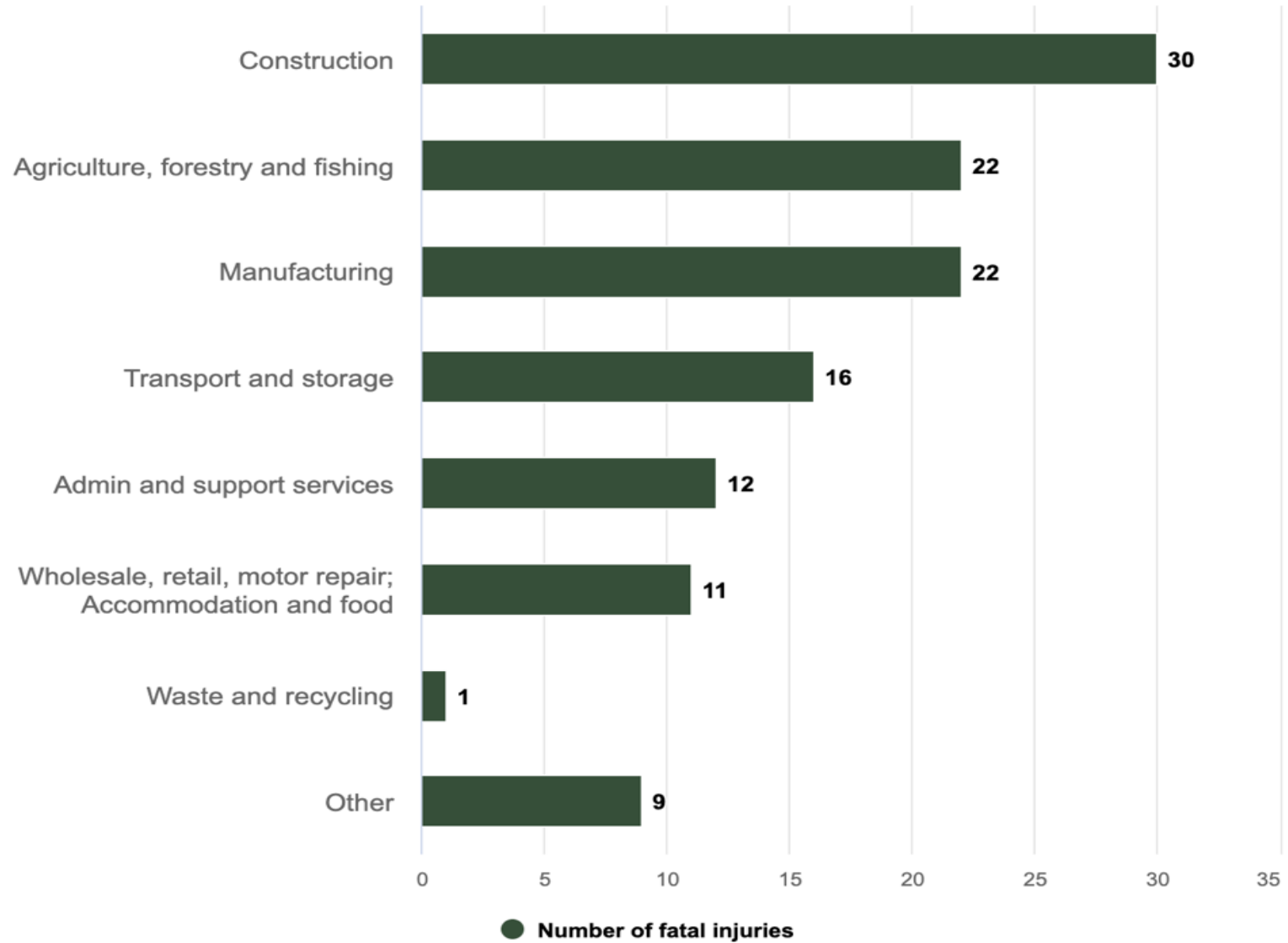
**123 workers killed in work-related accidents in 2021/22 (March/March)
(RIDDOR)**

**80 members of the public were killed due to work-related accidents in
2021/22**

Excludes deaths to 'patients and service users' in the healthcare and adult social care sectors in England

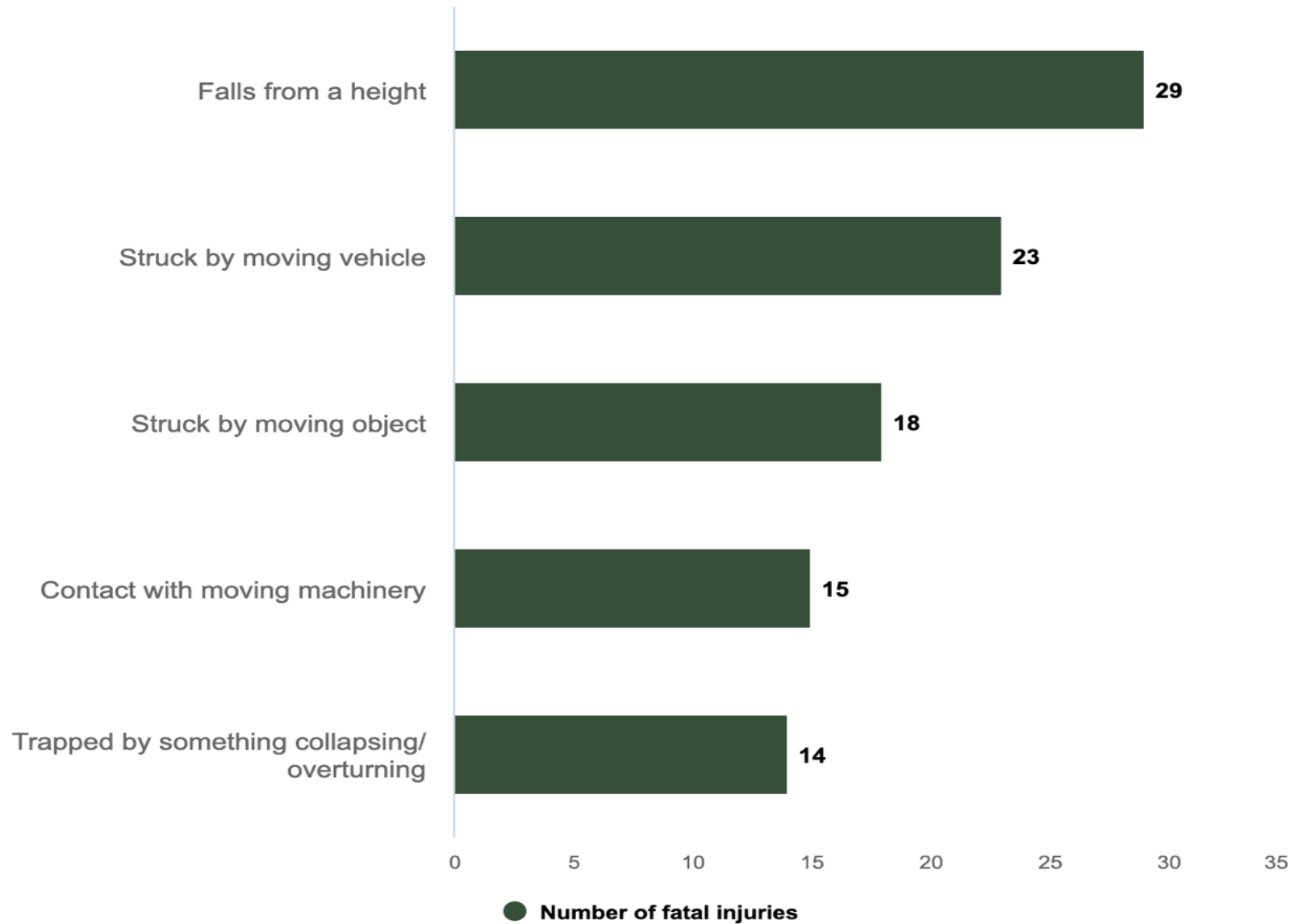


Fatal injuries to workers by main industry, 2021/22



Main kinds of fatal accident for workers, 2021/22

(Note: Includes all accident kinds accounting for 10 or more deaths in 2021/22)



Health and safety at work: criminal and civil law

Health and safety law (Civil Law)

If you meet your responsibilities under health and safety law you will considerably reduce the risk of being found negligent under civil law.

Neither the Health and Safety Executive nor local authorities enforce civil law

Under civil law, if someone has been injured or made ill through your negligence as an employer, they may be able to make a compensation claim against you. You can also be found liable if someone who works for you has been negligent and caused harm to someone else.

Civil law aims to deal with disputes between individuals or organisations.

Civil law cases usually (but not always) involve compensation or an agreement or judgement relating to finances.

Civil law cases are filed by private parties, while criminal cases are usually filed by the government.

Statutory Instruments owned and enforced by HSE/local authorities

What is a statutory instrument in the UK?

Statutory Instruments (SIs) are a form of legislation which allow the provisions of an Act of Parliament to be subsequently brought into force or altered without Parliament having to pass a new Act. They are also referred to as secondary, delegated or subordinate legislation.

There are three main types of UK Statutory Instrument: 'Orders', 'Regulations', 'Rules'.

These are regulations made by government departments to implement the provisions made in Acts of Parliament.

Statutory instruments

- **'Substantive'** identifies the main regulations that create positive health and safety duties on business.
- **'Administrative'** refers to regulations that mostly define administrative requirements eg enforcement powers or which revoke/amend earlier regulations. Some 'administrative' regulations that amend main regulations may also impose duties on businesses.

There's a table containing data relating to Statutory Instruments owned and enforced by HSE/local authorities.

Name of Regulation	Year	S.I. no.	Subject	Regulation Status: Substantive or Administrative?
Work at Height Regulations 2005 (S.I. 2005/735)	2005	735	Falls from height	Substantive
Lifting Operations and Lifting Equipment Regulations 1998 (S.I. 1998/2307)	1998	2307	Work equipment	Substantive
Manual Handling Operations Regulations 1992 (S.I. 1992/2793)	1992	2793	Manual handling	Substantive
Provision and Use of Work Equipment Regulations 1998 (S.I. 1998/2306)	1998	2306	Work equipment	Substantive
Construction (Design and Management) Regulations 2015 (S.I. 2015/51)	2015	320	Construction	Substantive

An Example of a Statutory Instrument - LOLER 1998

What is LOLER?

L.O.L.E.R stands for Lifting Operations and Lifting Equipment Regulations

It is the legal requirements relating to the use of lifting equipment

The regulations aim to reduce risks to people's health and safety from lifting equipment provided for us at work.

What does LOLER do?

The regulations require that lifting equipment provided for use at work is:

- Strong and stable enough for the particular use and marked to indicate safe working loads;
- Positioned and installed to minimise any risks;
- Used safely, i.e. the work is planned, organised and performed by competent people; and
- Subject to ongoing through examination and, where appropriate, inspection by competent people

What equipment is covered?

Lifting equipment includes any equipment used at work for lifting or lowering loads, including attachments used for anchoring, fixing or supporting it. Examples include:

- Cranes
- Fork-lift Trucks
- Lifts
- Hoists
- Mobile Elevating Work Platforms
- Vehicle Inspection Platform Hoists

The definition also includes lifting accessories such as:

- Chains
- Slings
- Eyebolts

LOLER does not apply to escalators as these are covered in more specific legislation (Health, Safety and Welfare).

If you allow employees to provide their own lifting equipment, then this is also covered by the regulations.

Statutory Instrument - LOLER 1998

Who do the regulations apply to?

If you are an employer or self-employed person providing lifting equipment for use at work, or you have control of the use of lifting equipment, then the Regulations will apply to you.

They do not apply if you provide equipment to be used primarily by members of the public, for example lifts in a shopping center.

While your employees do not have duties under LOLER, they do have general duties under the HSW Act and the Management of Health and Safety at Work Regulations 1999, for example to take reasonable care of themselves and others who may be affected by their actions and to co-operate with others.

The Regulations cover places where the HSW Act applies – these include factories, offshore installations, agricultural premises, offices, shops, hospitals, hotels and places of entertainment.

What do the regulations require me to do?

You must ensure that in using any lifting equipment the requirements of LOLER are met and all lifting equipment is:

- Sufficiently strong, stable and suitable for use
- Positioned or installed to prevent risk of injury
- Visibly marked with any appropriate information to be taken into account for its safe use

You must also ensure that:

- Lifting operations are planned, supervised and carried out in a safe manner
- Where equipment is used for lifting people it is marked accordingly
- Where appropriate, before lifting equipment is used for the first time, it is thoroughly examined
- Following on from such an examination, a report is submitted by the competent person to the employer to take appropriate action

LOLER 1998

Enforcement

Health and Safety inspectors enforce the Regulations. If you have duties under LOLER you will be given time to assimilate the new requirements, however, inspectors will be prepared to take firm enforcement action if there are serious risks.

For more information visit <https://www.hse.gov.uk/work-equipment-machinery/loler.htm>



**Lifting
Operations and
Lifting
Equipment
Regulations 1998**

An Example of a Statutory Instrument - PUWER

What is PUWER?

- The Provision and Use of Work Equipment Regulations 1998.
- These Regulations place duties on people and companies who own, operate or have control over work equipment.
- PUWER also places responsibilities on businesses and organisations whose employees use work equipment, whether owned by them or not.

PUWER requires that work equipment is:

- suitable for the intended use
- safe for use, maintained in a safe condition and inspected to ensure it is correctly installed and does not deteriorate
- used only by people who have received adequate information, instruction and training
- accompanied by suitable health and safety measures, such as protective devices and controls
- used in accordance with specific requirements, for mobile work equipment and power presses

What is work equipment?

- Any machinery, appliance, apparatus, tool or installation for use at work.
- Equipment which employees provide for their own use at work
- Any activity involving work equipment and includes starting, stopping, programming, setting, transporting, repairing, modifying, maintaining, servicing and cleaning.

Statutory Instrument - PUWER

What are your responsibilities?

If you or your business is responsible for providing equipment you must:

- Ensure the equipment is constructed or adapted to be suitable for the purpose for which it is used or provided.
- Take account of the working conditions and health and safety risks in the workplace when choosing work equipment.
- Ensure work equipment is used only for suitable purposes.
- Ensure work equipment is maintained in an efficient state, in efficient working order and in good repair.
- Where a machine has a maintenance log, keep this up to date.
- Where the safety of work equipment depends on the manner of installation, it must be inspected after installation and before being put into use.
- Where work equipment is exposed to deteriorating conditions liable to result in dangerous situations, it must be inspected to ensure faults are detected in good time so the risk to health and safety is managed.
- Ensure that all people using, supervising or managing the use of work equipment are provided with adequate, clear health and safety information, including, where necessary, written instructions on its use and suitable equipment markings and warnings.
- Ensure that all people who use, supervise or manage the use of work equipment have received adequate training.
- Ensure that the use of the equipment is restricted to those people trained and appointed to use it.
- Take effective measures to prevent access to dangerous parts of machinery.
- Take measures to prevent or control the risks to people from parts and substances falling or being ejected from work equipment, or the rupture or disintegration of work equipment.
- Ensure that the risks from very hot or cold temperatures from the work equipment or the material being processed or used are managed to prevent injury.
- Ensure that work equipment is provided with appropriately identified controls for starting, stopping and controlling it.
- Where appropriate, provide suitable means of isolating work equipment from all power sources.
- Ensure work equipment is stabilised by clamping or otherwise to avoid injury.
- Take appropriate measures to ensure maintenance operations on work equipment can be carried out safely while the equipment is shut down.

PUWER

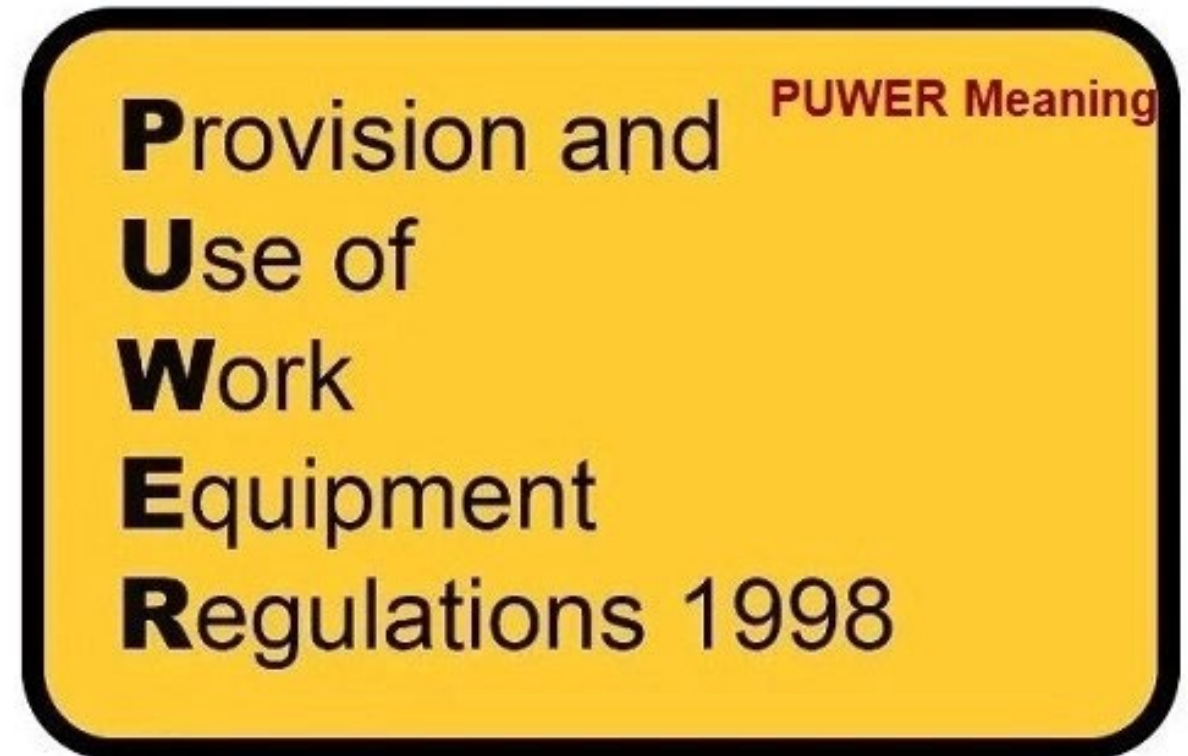
You must check that any new equipment:

- Is CE marked
- Come with a Declaration of Conformity
- Comes with instructions (in English)
- Has no obvious defects, and remains that way throughout its working life

When providing mobile work equipment:

- Ensure it is suitable for purpose when carrying employees.
- Minimise the risks of roiling over and protect anyone being carried in case of rolling over.
- Where self-propelled, ensure the equipment can be controlled safely with braking devices, adequate driver vision and, where necessary, lighting.
- Take measures to prevent risks from drive shafts that power accessories attached to mobile work equipment, by using adequate guards.

For more information visit <https://www.hse.gov.uk/work-equipment-machinery/power.htm>





National Occupational Standards

“...also known as professional standards, specify UK standards of performance that people are expected to achieve in their work, and the knowledge and skills they need to perform effectively”.

National Occupational Standards(NOS) are developed by Standard Setting Organisations (SSO) who consult with employers and other stakeholders across each of the UK nations, (Scotland, Wales, Northern Ireland and England). This consultation process allows any specific requirements to be considered by each nation and the result is a set of NOS that are suitable for use across the UK. The NOS, which are set out in a common format, are approved on a four-nation basis and content is scrutinised by SQA Accreditation. Each NOS has a published date stating when it was approved, and the most current NOS are listed in this database. There is also an anticipated review date and this will be used as a guide to when they require reviewing and feedback from stakeholders is taken to influence when this is commissioned.



NOS can be used for developing skills and knowledge and these include; direct transfer into vocational and other qualifications, framework for training programmes, measures of workplace competence and influencing job descriptions.

BSEBSE01 - J4FC 04

Apply health and safety and environmental legislation in the building services engineering sector



Performance criteria

You must be able to:

Overview

This standard is about establishing and maintaining working practices and procedures across a specified range of building services engineering sector installation and/or maintenance activities that give consideration to health and safety, the natural environment and the working environment. This would include identifying hazards and risks, applying appropriate procedures and working practices to protect yourself and others.

This work may be carried out in the context of plumbing, electrotechnical, refrigeration and air conditioning, heating and ventilation, or consumer electrical and electronic products.

Knowledge and understanding

You need to know and understand:

Scope/range related to performance criteria

Competence v Compliance

The process is about Judgements – Authority – Accountability – Traceability –

If you drive a car, you might well be competent, although if you hold no licence you're not compliant, and if you wear no seatbelt you're breaking the law.

Competence

Competence refers to an individual's capacity to perform job responsibilities.



Compliance

Compliance means conforming to a rule, such as a specification, policy, standard or law.



The British Standards Institution (BSi)

is the national standards body of the United Kingdom.



BSi 8670 (Flex)
Behavioural Competence
Fire Safety
Management of Building
Safety



BSi 8671
Designers



BSi 8672
Principal Contractors



BSi 8673
Management Safety,
residential buildings

Behavioural competence for building safety

(Changing Culture and attitudes) ?

COMMENTARY ON CLAUSE 5

Ensuring that people possess appropriate behavioural competence is critical to achieving and maintaining building safety outcomes. The core competence criteria in this clause are therefore considered foundational in enabling people to act competently.

NOTE 1 *The scopes in each table are non-exhaustive examples, some or all of which might be relevant to the context of any given sector-specific framework.*

Built environment – Core criteria for building safety in competence frameworks – Code of practice

April 2021 Version 3



BSI Flex 8670: v3.0 2021-04

Core competence criteria	Scope
<p>a) Act ethically and contribute to safe outcomes</p>	<p>1.1) Ethical principles to promote safe outcomes, including:</p> <ol style="list-style-type: none"> 1. i) respect for life, the law, environment and public good; 2. ii) honesty and integrity; 3. iii) accuracy and rigour; and 4. iv) responsibility for direction, conduct and communication. <p>2.NOTE Informative text on these ethical principles is provided in Annex A.</p> <p>3.2) Relevant codes or standards of conduct.</p> <p>4.3) Respect for diversity and principles of inclusivity.</p> <p>5.4) Application of sound judgement including anticipating, identifying, analysing and solving problems to support safe and effective outcomes.</p>
<p>b) Demonstrate effective leadership, teamwork and communication as an individual or as a member of a team:</p> <ul style="list-style-type: none"> •demonstrate commitment to strong safety culture; •collaborate effectively and collectively, as part of a team; and •communicate effectively 	<p>1.1) Visible commitment at all levels to a strong safety culture.</p> <p>2.2) Collaboration with others and effective team working skills.</p> <p>3.3) Effective communication within and between teams, organizations and individuals.</p> <p>4.4) Listening and feeding back effectively</p> <p>5.5) Communicating technical information to non-technical audiences.</p> <p>7.6) Communicating effectively through use of oral, written, drawn, digital or graphic information and in accessible formats.</p>

Table 1 – Behavioural competence (continued)

Core competence criteria	Scope
<p>c) Manage individual and contribute to organizational competence:</p> <ul style="list-style-type: none"> • manage own competence; • manage competence of others where appropriate; and • maintain competence and contribute to learning culture 	<ol style="list-style-type: none"> 1) Acting within limits of own competence (particularly in relation to building safety) and seeking further appropriate advice where necessary. 2) Maintaining competence including undertaking self-assessment and personal development activities. 3) Managing competence of others including fulfilling dutyholder obligations when making appointments or allocating tasks within teams. 4) Recording, monitoring, analysing and acting to improve outcomes as part of a learning culture.
<p>d) Demonstrate personal responsibility and accountability:</p> <ul style="list-style-type: none"> • understand personal role and responsibilities with particular reference to safety; • accept and manage accountability for individual actions; and • understand responsibility and accountability for collective actions 	<ol style="list-style-type: none"> 1) Responsibility for own actions and for the actions of those under their supervision or direction. 2) Managing boundaries/interfaces of responsibility and communicating these effectively to others. 3) Anticipating, identifying and challenging unsafe or inappropriate behaviours and escalating concerns through reporting or whistleblowing mechanisms. 4) Identifying and providing feedback on unsafe process, equipment, procedures, construction products, building systems, standards or quality.
<p>e) Understand and respect duty of care to others including building occupants:</p> <ul style="list-style-type: none"> • duty of care to public and building occupants; • duty of care to co-workers; and • duty to communicate with persons outside the project team and respond to reported risks or concerns 	<ol style="list-style-type: none"> 1) Duties and obligations to act in protecting safety of self, colleagues and the public whilst undertaking work. 2) Duty of care to occupants including residents, first responders and people in and around buildings in use. 3) Consultation, listening and engagement with occupants or others who are or could be affected by work (including vulnerable, older and disabled people) and responding appropriately.

The BSI 8670 Flex sets out core criteria against which sector- specific competence frameworks can be developed or assessed in relation to building safety, including:
core behavioural criteria to support industry in the development of a stronger safety culture.

0.3.4 Maintaining and developing competence

Competence can become out of date over time and requires positive action to maintain. This includes building on and refreshing skills, knowledge and understanding, identifying specific requirements relevant to work being undertaken and keeping abreast of changes in context such as regulation or technology.

0.3.3 Validation and revalidation

Validation is the process by which an individual is assessed as being competent to fulfil a specific role. This might give access to qualification, registration, a licence to practice or the ability to work in a given role

Revalidation is a periodic reassessment or re- evaluation of competence which provides assurance that the necessary skills, knowledge, experience and behaviours have been maintained or developed such that the individual remains competent to fulfil the specified role.

In the context of this BSI Flex, for an individual to be considered competent means that they need to have the appropriate skills, knowledge and experience, combined with appropriate behaviours, to be able to fulfil their defined role, function or activity and carry out appropriate tasks.

Behavioural competence, when combined with existing skills, knowledge, and experience, helps to change a sense of individual responsibility and accountability as part of an effective and strong safety culture.

6.2 Fire safety, structural safety and public safety

All sector-specific competence frameworks should demonstrate how they meet the core competence criteria set out in Table 2, contextualized and at an appropriate level relevant to the role, function, activity or task within the framework's scope.

Table 2 – Fire safety, structural safety and public safety

Core competence criteria	Scope
a) Understand and contribute to development and application of fire safety strategies, practices and technological systems in buildings	<ol style="list-style-type: none"> 1) Foundation principles of fire safety, including: <ol style="list-style-type: none"> i) principles of fire chemistry and physics, including ignition and heat transfer; ii) the influence of structure, construction product selection and buildings systems on fire safety performance; iii) human behaviour and escape requirements; and iv) methods of fire suppression and how to limit fire growth and fire spread. 2) Fire safety design concepts and strategies that enable safe use and occupancy of a building including integration of principles of inclusive design. 3) Mitigation and control functionalities of fire protection technologies and systems that detect, alert, confine fire growth and effluents, suppress ignition and fire, ventilate and secure escape or reduce fire spread; and reduce risks involved in firefighting and rescue.
b) Understand and contribute to fire safety in buildings through legislative controls: <ul style="list-style-type: none"> • design for fire safety; and • construct and install in accordance with compliant design intent 	<ol style="list-style-type: none"> 1) Regulatory and legal frameworks to protect people and property from fire through fire safety requirements including statutes, building regulations/standards and advisory documentation. 2) Statutory requirements; to aid warning and escape; for facilities to enable access and intervention by the fire and rescue services; for containment of fire and to support extinction. 3) Requirements for exchange of fire safety information.
c) Contribute to fire safety in buildings during occupation	<ol style="list-style-type: none"> 1) Requirements for audits, inspections and risk assessments so that means of escape and fire protection systems in buildings (including physical and technological means) remain available throughout a building's life, appropriate to occupancy, use, construction and level of fire risk. 2) Maintaining compartmentation and sustaining function of fire protection systems during occupation and when undertaking works to existing buildings.

Built environment – Core criteria for building safety in competence frameworks – Code of practice

April 2021 Version 3



BSI Flex 8670: v3.0 2021-04

6.3 Managing building safety

Obligations to raise, escalate or flag risks to life safety during the design, manufacture, construction, maintenance or management process including whistleblowing and mandatory reporting regimes.



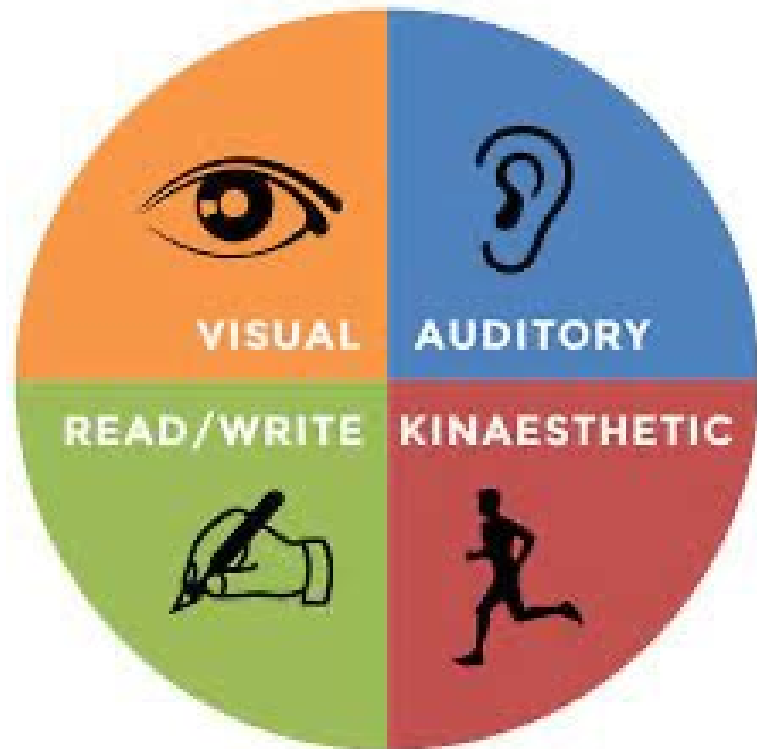
BSi 8672 – Principal Contractor

It came into effect on 31 July 2022.

- *"determine when to engage with experts holding such specialist skills, knowledge, experience and behaviors and to assist them in demonstrating their compliance"*
- *The Principal Contractor shall be able to recognize and evaluate their own competence limitations and seek appropriate assistance where and when necessary.*
- *recognize the drivers of compliance and the consequent legal duties and obligations in regard to building and life safety.*
- *identify the skills, knowledge, experience and appropriate behaviors of those directly appointed by them, or their organization, in the building work and develop training plans to address gaps in competences;*
- *The Principal Contractor shall demonstrate they are able to manage their own competence and that of others involved in the building work, as well as contribute to the competence and learning culture of the organization.*
- *The Principal Contractor should take all reasonable steps to ensure every person/organization under their control is sufficiently competent to carry out their work.*
- *The Principal Contractor shall demonstrate they are able to develop and maintain the competences to undertake the duties prescribed by legislation and apply individual skills, knowledge, experience and behaviors to the level required*
- *Principal Contractor should understand and embed ethical and behavioural practices as defined in this PAS and BSI Flex 8670.*
- *A competent individual is one who has the relevant skills, knowledge and experience, combined with appropriate behaviours. These enable the competent individual to fulfil a defined role, function or activity and carry out specified tasks.*
- *The Principal Contractor is expected to monitor the validation and periodic revalidation of individual workforce competences, including their own. The validation process should assess the competences of the individual for the role, and the revalidation assessment should provide assurance that the individual's skills, knowledge, experience and appropriate behaviors have been sufficiently maintained or developed.*

Learning Styles

Perhaps the simplest way of describing 'learning styles' is to say that they are different methods of learning or understanding new information, the way a person takes in, understand, expresses and remembers information. There are 4 predominant learning styles: **Visual, Auditory, Read/Write, and Kinaesthetic.** (VARK)



Also

- social.
- solitary.
- verbal.
- logical.



KINESTHETIC LEARNERS

Learn best by: Getting involved and taking action

May find it difficult to: Sit and listen or read something for long

How to spot them: They often can't help fidgeting during meetings or presentations, and are quite energetic and keen to just get "stuck in".

Learning Theories Quotes



Behaviourism

Behaviorism, also known as behavioral psychology, is a theory of learning which states all behaviors are learned through interaction with the environment through a process called conditioning. Thus, behavior is simply a response to environmental stimuli.

Examples of behaviour modification techniques include praise, reward systems, continual feedback, positive reinforcement and non-punitive discipline.

Constructivism

“The principal goal of education... should be creating men and women who are creative, inventive, and discoverers, who can be critical and verify, and not accept, everything they are offered.” (Piaget, 1988)

Learning should be an active and meaningful process

Learning is the development of new knowledge, skills, and attitudes as the learner interacts with information and the environment.

Learning Theories Quotes



Experiential learning

“The process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (Kolb, 1984, p.41)

Experience is the foundation for learning

Learning is the transformation of experience into knowledge, skill, attitudes, values and emotions

Communities of Practice

“Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavour...who share a concern or a passion for something they do and learn how to do it better as they interact regularly.” (Wenger, 2000).

Through legitimate peripheral participation, novices learn from mentors, and then eventually participate fully in the Communities of Practice. The experts and novices undertake various roles to communicate, contribute to and initiate ideas and joint projects.

5 COMMON TEACHING STYLES

Authority, or lecture style

Teacher-centered, frequent lengthy lectures, one-way presentations.

Demonstrator, or coach style

Shows knowledge, includes activities and demonstrations.

Facilitator, or activity style

Promote self-learning, self-actualization, and critical thinking skills.

Delegator, or group style

Best for lab activities and peer feedback activities.

Hybrid, or blended style

Blends the teacher's personality and interests with students' needs.

resilienteducator.com/styles

Teaching Styles

QUESTION PAPER