Become a (MRICS)

المعهد الملكي للمساحين القانونيين

4 Round

محاضرة رقم

02

PATHWAY

QUANTITY SURVEYING AND CONSTRUCTION –PM-APC

HEALTH AND SAFETY

Dr. Moustafa I. Abu Dief, Ph.D, MRICS, CFCC™

Become a (MRICS)

How to become a (MRICS)

Pathway

HEALTH AND SAFETY

محاضرة رقم 02

Dr. Moustafa I. Abu Dief, Ph.D, FCIArb, MRICS, CFCC – 2025

Profile

Dr. Moustafa Ismail, FCIArb, MRICS, CFCC, FCIOB, FCInstCES:

- Associate Prof. ABMS University- Switzerland
- Fellow, Chartered Institute Of Arbitrators, UK. (FCIArb)
- Fellow, Chartered Institute Of Building, UK. (FCIOB)
- Consultant Engineer, Egypt (EEA), Consultant engineer, SCE-KSA
- Fellow, Institute of Civil Engineers Surveyors, (FCInstCES).
- Certified Arbitrator, Egypt, Kuwait, Bahrain, and KSA
- Fellow and A Prof. Justice Academy for Legal and economics studies, 2017
- Risk Management Professional, and PMP®, 2006, MCI.Arb, MRICS, PMOC
- QMS/ Qa Management IRCA Certification.
- CCP - Certified Cost Consultant AACEI, US.
- Contracts/Commercial Director, ZAMIL, Ital consult, Parsons, DAR , AECOM.

Profile

دكتورمهندس مصطفى إسماعيل أبوضيف MRICS

- عضو مجمع المحكمين البريطانيين -.ماجستير القانون الخاص
- محكم معتمد بالهيئة السعودية للمهندسين ومستشار هندسى
- مهندس إستشاري نقابة المهندسين المصرية
- أستاذ مساعد بالجامعة السويسرية (العقود وإدارة المشروعات).
- ممتحن معتمد لشهادات دولية التكاليف والمطالبات وعضوية منظمات الإعتماد الدولى
- ماجستير ودكتوراه جامعة الإزهر (العقود والمطالبات).
- ماجستير القانون الخاص
- زميل المعهد البريطانى للبناء– FCIOB - زميل المعهد البريطانى للمهندسين المساحيين FInstCES
- حاصل على الإعتماد المهنى CFCC™- AACE- USAلمطالبات العقود.
- مهندس معتمد PMP® - PMI-RMP® - CCP® PMOC , SSGB, and
- مراجع معتمد عقود ومشروعات IRCA-UK Certification (L-Auditor)
- أستاذ العقود والتحكيم بأكاديمية العدالة - محاضر بيم أرابيا
- **مهندس مدنى -إنشاءات –هندسة عين شمس 1988**
- **Commercial/Claims director: Zamil, Ital consult, DAR, Parsons, AECOM.**

Profile

Moustafa I. Abu Dief, FCIOB, MRICS, CFCC™, , FCInst.CES, PMP®, CCP, PMI-RMP.

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The Worthy Journey

Never

Late

Just

Start!!

The Worthy Journey

Never

Late

Just

Start!!

ملاحظات2

MRICS ملاحظات عن محاضرة اليوم.....		
م	الموضوع	ملاحظاتى
1		
2		
3		
4		

COMPETENCY GUIDE

HEALTH AND SAFETY

This competency covers the relationship between the work of the quantity surveyor and health and safety issues within the construction industry. Candidates should be aware of legal, practical and regulatory requirements. They should have a detailed understanding of the health and safety processes and guidelines used to achieve this.ppe

Examples of likely knowledge, skills and experience at each level

Level 1	Level 2	Level 3
Demonstrate knowledge and understanding of the principles and responsibilities imposed by law, codes of practice and other regulations appropriate to your area of practice.	**Apply evidence of practical application of health and safety issues and the requirements for compliance, in your area of practice.**	**Provide evidence of reasoned advice given to clients and others on all aspects on health and safety.**
Examples of knowledge comprised within this level are: • Personal safety on site and in the office • Procedures imposed by law • The impact on health and safety of: – Design – Construction processes – Building maintenance – Employment of staff.	**Examples of activities and knowledge comprised within this level are:** • Obtaining formal health and safety qualifications including first aid, industry specific or nationally recognised qualifications • Being involved with specific roles and responsibilities within the various regulations.	**Examples of activities and knowledge comprised within this level are:** • Giving reasoned advice on and/or taking responsibility for health and safety issues relating to: – Impact of design on construction – Alternative construction processes – Impact of design on occupation and maintenance – Undertaking risk assessments – Current legislation.

COMPETENCY GUIDE

HEALTH AND SAFETY

HEALTH AND SAFETY

Surveying safely: health and safety principles for property professionals

RICS guidance note, global
2nd edition, November 2018

rics.org

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COMPETENCY GUIDE

HEALTH AND SAFETY

Because of my work on-site, I need to be aware of health and safety guidelines. Working now in the Middle East, trying to handle all the diff[illegible] from different countries in the area, I must check all details in the specific worki[illegible]
In Dubai, they have a[illegible] whether we work in the middle of roads o[illegible] to them to make sure all are in good healt[illegible]

2 By Understa[illegible]ent (FG) (OHS guidelines) and RICS surveying safely[illegible]y transport safety are always first, taking the monthly meetings t[illegible] policies and how to improve it, lifting villas in xxxxxxx island for a new hotel, all my team will wear safety jacket, PPE, helmet and gloves also will make sure that they are away from crane turning radius. The FG .....

COMPETENCY GUIDE

HEALTH AND SAFETY

Competency: Health and safety

Level: 1

Summary of Experience:
I understand the Occupati… the health and safety of persons within their respective work contexts… e Construction Regulations 2014, it is the responsibility of the principal contracto… which must be reviewed and updated by the principal contractor as work progr… ety performance indicators on the current project and understand the impact of a poor safe… ontracts.

Competency: Health and safety

Level: 2

Summary of Experience:
In the employ of the principal contractor, I was asked to determine the cost impact of re-torquing bolts on the boiler frame structure of a coal power plant under construction. The assessment required a trip to the 105m level of the boiler. Before ascending the structure, I ensured that I had completed the site safety induction. I further met with the Site Safety Manager and requested the health and safety file for the unit to gain a better understanding of the hazard identification and risk assessments more explicitly relating to working at heights. The safety manager alerted me to the regulatory requirement for a site fall protection plan. I ascended the structure with a better understanding of the relevant legislation/regulations duly equipped with the appropriate PPE.

HEALTH AND SAFETY

Level 1:

I learnt about health and safety by attending several courses such as an in-house safety training wıth my fırst Employer and the OSHA 30-hour course trough Turner University in

2008.

I am aware that I need to prepare risk assessments before entering a new site and that I must share and review these assessments with my team each team conditions change. I have attended several site induction and I am aware of the required PPE on site as well as basic safety precaustion to take around moving vehicles, cranes and excavations.

I lam mindful of my personal safety and I am aware that I can report any concerns to my Employer safety hotline.

Level 2

Before going to a meeting away from my office, I always inform others where I am going and who I will meet and when I expect to be back. I always take a fully charged mobile phone with me.

I never accept to enter to a workplace if I note that there is no adequate safety procedures in place. For example, **in one of my projects**, I noticed that the segregation between vehicles and pedestrian was very unclear and notified the site manager of the need to amend it.

COMPETENCY GUIDE

I took Health and Safety training courses in my work.

Personal safety is achieved by monitoring and maintaining a safe working environment, equipment, and systems of work and by competent staff.

Labor law in KSA sets out specific H&S procedu ployers to avoid any causes of occupational diseases, injuries, or a

The Saudi Civil Defence imposed several egulations that must be adhered to in different aspects like t uction permit), construction sites, and residential and admini

2 I was responsible for follow roject teams to the "Procedural Guide to Preventing Covid Ministry of Human Resources.

I was an audit committe sponsible for ensuring that the contractor satisfied civil defense r n aspects. Like the safety of the building's structural skeleton, pr nal spread of fire, and appropriate roads for the passage of rescue and fi hicles.

HEALTH AND SAFETY- PPE

Personal Protective Equipment (PPE) refers to protective clothing for the eyes, head, ears, hands, respiratory system, body, and feet. It is utilized to protect individuals from the risks of injury and infection while minimizing exposure to chemical, biological, and physical hazards. PPE serves as the final line of defense when engineering and administrative controls are insufficient in reducing or eliminating risks.

HEALTH AND SAFETY

What is PPE Safety?

PPE safety is the practice of ensuring a safe, working environment for employees and visitors through the use of Personal Protective Equipment (PPE). Safety is paramount to all businesses across industries. Using PPEs, paired with inspections such as workplace and restaurant inspections, assessments like health and safety risk assessments, and analysis such as gap analysis—is essential to protect employees from risks and hazards.

HEALTH AND SAFETY

Why is it Important?

According to the hierarchy of controls by the National Institute for Occupational Safety and Health (NIOSH), PPE (sometimes also referred to as PPE equipment)—is recommended to be the last level of defense to prevent occupational injuries, illnesses, and fatalities, but some businesses combined it with other control measures to ensure a safe and healthy environment for their workers. Here are some benefits of using PPEs:

HEALTH AND SAFETY

Here are some benefits of using PPEs:

- ✓ prevent unnecessary injury in the workplace;
- ✓ protect employees from excessive chemical exposure;
- ✓ prevent the spread of germs and infectious diseases including COVID-19;
- ✓ help businesses comply with regulatory requirements(e.g., The Personal Protective Equipment at Work Regulations 1992 that's recently been extended to limb workers); and
- ✓ improve employee productivity and efficiency.

HEALTH AND SAFETY

he following are basic PPE that can help protect employees:

HEALTH AND SAFETY

Face and Eye Protection

PPE includes safety goggles and face shields and should be used for tasks that can cause eye damage or loss of vision, sprays of toxic liquids, splashes, and burns.

Safety Tips:

- Check if safety glasses comply with the ANSI Z87.1 eye protection standard.
- Ensure that there are no cracks or deformities on the lenses.
- Ensure the strap is in good working condition and is firmly sealed to the cheek and forehead.
- Clean and disinfect after use.

HEALTH AND SAFETY

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HEALTH AND SAFETY

Respiratory Protection

PPE includes full-face respirators, self-contained breathing apparatus, gas masks, N95 respirators, and surgical masks are used for a task that can cause inhalation of harmful materials to enter the body. This includes harmful gas, chemicals, large-particle droplets, sprays, splashes, or splatter that may contain viruses and bacteria such as COVID-19, viral infections, and more.

Safety Tips:

- Ensure that the equipment is fit-tested and the employee has undergone proper training before wearing one.
- Carefully read the instructions to determine if it is designed to help protect against the hazards you may face.
- Change filters on half-mask or full-mask respirators

HEALTH AND SAFETY

Fall Protection

PPE includes safety harnesses and lanyards and should be strictly used for tasks that can cause falling from heights and serious injury or death.

Safety Tips:

- Ensure that the straps are free from tears, deformities, and burn marks.
- Check the buckles if connected securely and tightly.
- Dispose of the equipment if used after a falling incident.

HEALTH AND SAFETY

Hearing Protection

PPE includes ear muffs and plugs and should be used for tasks that can cause hearing problems and loss of hearing.

Safety Tips:

- Ensure the equipment fit the ear canal perfectly.
- It is recommended to use formable earplugs to fit different sizes of ear canals.
- Use protectors that reduce noise exposure to an acceptable level to have room for communication.
- Ensure earplugs are clean and in good condition.

HEALTH AND SAFETY

Top 10 Office Safety Rules

1. Conduct office walkthroughs

- Organize a team or assign personnel to conduct regular office walkthroughs and observe safety protocols. Pay close attention to various environments in the workspace and observe employees' working circumstances to identify possible risks or hazards (e.g., collisions and obstacles, poor lighting, and environmental toxins).

2. Keep work areas neat and tidy

- Employees should keep work areas uncluttered to prevent slips, trips, and falls. Cleaning and sanitizing as they go is also beneficial to keep the workplace free of harmful germs and viruses.

3. Promote employee hygiene

- Employee hygiene has become a very real office safety concern. To prevent the spread of harmful viruses between employees, it is crucial to have controls in place such as wearing masks, applying hand sanitizers, and observing proper hand-washing techniques.

HEALTH AND SAFETY

Top 10 Office Safety Rules

4. Dress appropriately

- Depending on the nature of work, employees should carefully consider the most appropriate clothing to minimize common workplace injuries and accidents. This may include avoiding wearing dangling jewelry or ties and wearing closed-toe shoes. When and where necessary, personal protective equipment (PPE) should be worn.

5. Observe proper handling procedures

- Proper lifting and bending techniques should be instilled in employees to prevent physical injuries. If an employee is not sure how to do this, it is better to ask for help from a supervisor or company safety officer.

6. Avoid using tools or machinery you're not trained for

- While some tools may seem intuitive and easy to use, it's always best to avoid using them without proper training. This is to ensure not only the safety of one individual but also the surrounding people.

HEALTH AND SAFETY

Top 10 Office Safety Rules

7. Fully close doors and cabinet drawers

- Avoid leaving doors, and cabinet and desk drawers open. They can be a cause of collision and tripping. Encourage employees to close them after every use.

8. Familiarize the workforce with emergency procedures

- Run drills and training courses to guide employees on what to do when an emergency crisis occurs.

9. Take breaks appropriately

- Well-rested employees are able to maintain their focus and awareness of their surroundings and safety which is valuable to maintain safety in the work environment.

10. Always report unsafe conditions

- Have a system in place for reporting unsafe conditions. Empower your employees to speak up when something is amiss in the workplace and threatens their safety. A digital checklist makes a great tool for ensuring safety standards and measures are being implemented.

HEALTH AND SAFETY

PPE Safety Requirements

Safety Officers can promote safety in the workplace by following PPE safety requirements:

- Check work sites regularly for the need for PPE.
- If PPE is needed, provide employees with properly-fitted PPE.
- Train employees on OSHA PPE standards.
- Provide protective goggles or face shields when there is a danger of flying particles or corrosive materials.
- Require that safety glasses are worn at all times in worksites that pose a risk of eye punctures, abrasions, contusions, or burns.
- Provide and require protective gloves in situations where employees could be cut or possibly exposed to corrosive liquids, chemicals, blood, and other potentially infectious materials.

HEALTH AND SAFETY

PPE Safety Requirements

Safety Officers can promote safety in the workplace by following PPE safety requirements:

- Require the use of foot protection when there is a risk of foot injury from hot, corrosive, or poisonous substances, and falling objects.
- Inspect hard hats periodically for damage to the shell and suspension system.
- Maintain PPE in sanitary and ready-to-use conditions.
- Ensure that eyewash facilities and quick drench showers are easily accessible for employees when they are accidentally exposed to corrosive materials.
- Establish safe work procedures for disposing of or decontaminating PPE after hazardous exposures.

SAFETY in Design

A design that takes into consideration all potential hazards and designs products and systems to control those risks. The goal of safe design is to protect people, property, and the environment from injuries and damage.

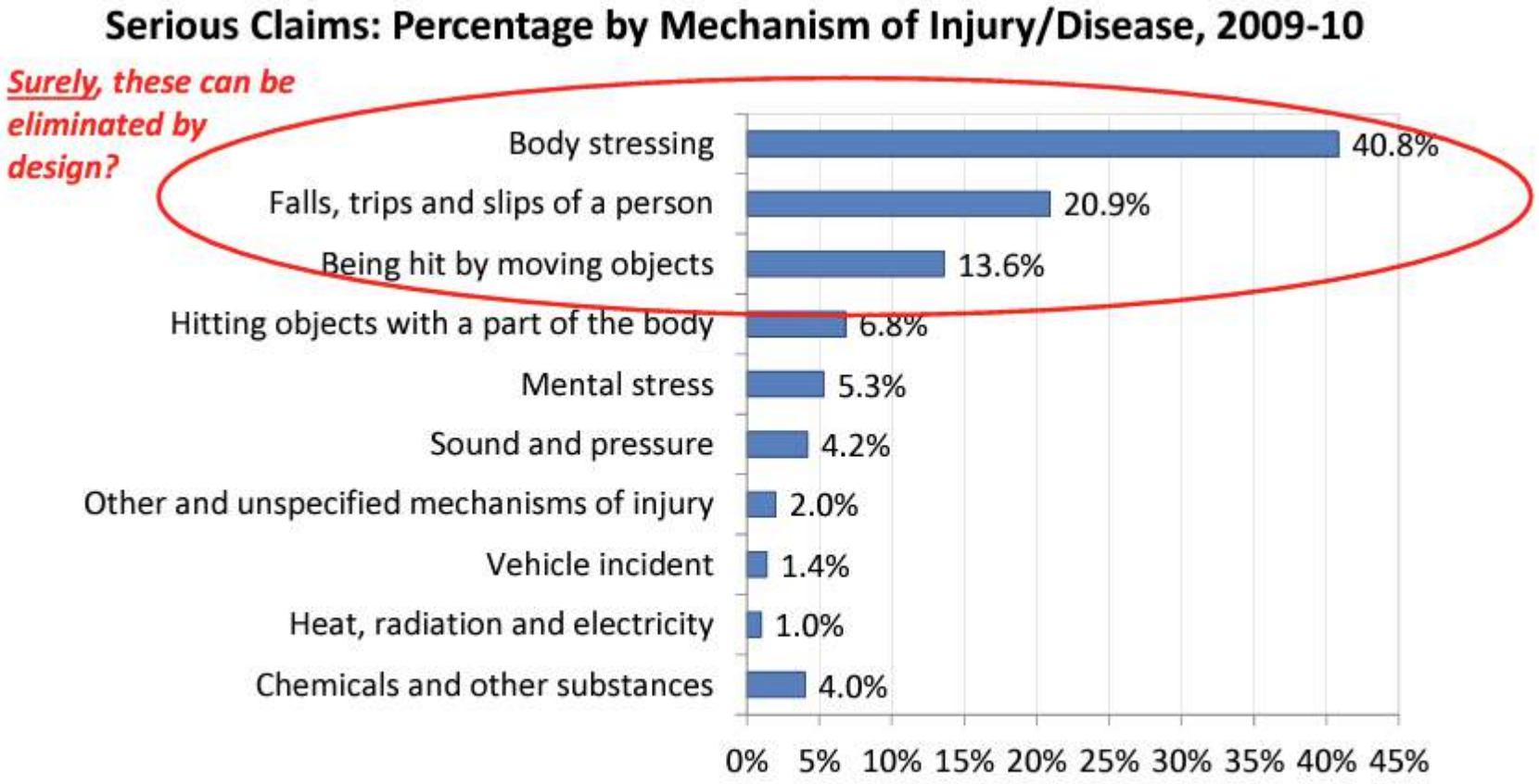
SAFETY in Design

- A design that takes into consideration all potential hazards and designs products and systems to control those risks. The goal of safe design is to protect people, property, and the environment from injuries and damage.
- Safety in Design is a process that integrates hazard identification and risk assessment methods early in the design. The process considers how to eliminate, isolate or minimise the risks of death, injury, and ill health to those who construct, operate, maintain, decommission, or demolish an asset.

SAFETY in Design

- Safety in Design is a contemporary term that has become common in the context of the harmonised legislated duties of designers and draws attention to procedures and steps that would ideally be built-into engineering and project-delivery processes but sometimes are not. In the absence of such processes, having a specific *SiD process is a good way to draw attention to the requirements until it becomes embedded as an organisation's 'business as usual.*

SAFETY in Design



ENGINEERING SYSTEMS MANAGEMENT

Engineering Management
Systems Engineering
Management Systems

SAFETY in Design

Safe Design = Good Design

What is good design?

Good Design = Good Engineering

Before starting design work:

• Competent people • Design Change Control procedure, through-life • Verification and Validation process • Engineering Authority Structure • Engineering process Per piece of engineering or design work (per project): • Information transfer plan • Human-to Asset interface matrix • Requirement Specification (or URS) • TALK to users • Spec. for detail design

COMPETENCY GUIDE

SAFETY in Design

Engineered and Safe Design

Practice / tool / technique	Used for....
Safety in Design / PHA (Also 'CHAIR')	What will be the 'human-to-asset', environment-to-asset, and asset-to-asset interfaces, and can we make them safer?
Systems / Process Safety	Understand top-level concepts of operations & functional reqt's, identify the hazards and then the safety functions to control them
HAZOP studies per AS IEC 61882	Analysis of what happens when design are operated **outside its design intent**
SWIFT	Systematic what-if technique. Good for operator interactions with / into a system (less formal / faster than HAZOP)
FMEA per AS IEC 60812 (FMECA, FMEDA, process FMEA)	What if a component fails whilst operating within design intent? Analysis of predicted, random failure rates of new designs / mod's
QRA/ PRA & Bow-tie analysis; Event tree & Fault tree analyses	Typically: incident causation and consequence analysis. Something has gone wrong...what next? (Actual or postulated)
LOPA (Layers of Protection Analysis)	What diverse means of achieving safe states dare there, in case one fails?
Functional Safety per AS IEC 61508/61511	Justification of electrical, electronic, programmable system performance. "The safety of functions."
Major Hazard Facilities	Legislation supported by guides from Safe Work Australia (Good model of systems safety). Requires a **SAFETY CASE**

SAFETY in Design

Steps of SiD.

1. Lessons Learnt
2. Determine Safety In Design Requirements:
3. Early Engagement Of O&m / Hazard Register:
4. Conduct Other Safety Studies
5. Align Understanding
6. Early Engagement Of Stakeholders (Construction & Commissioning)
7. Live Hazard Tracking
8. Information Transfer & Safety Report (Sid Report)
9. Verify And Validate Safety In Design Actions
10. Safety In Design Lessons Learnt

COMPETENCY GUIDE

SAFETY in Design

Steps of SiD.

	WHAT?	DELIVERABLE	WHEN?
1	**Find lessons learned** *Put them in the requirements spec.* *Start a hazard register*	Lessons learned list / hazard register. Keep it live throughout the project.	At the start of design / after the brief / as part of writing the R Spec
2	**SiD Impact Assessment** *Determine SiD requirements*	Signed assessment form	When there is a concept to conduct a meaningful assessment
3	**SiD Management Plan** *Who does what, when?*	Signed plan, with project plan / design plan (or within one of them)	When you know the preferred engineering / design option
4	**SID Review of O&M** *Early engagement of O&M / HAZARD REGISTER*	Updated hazard register, With hazards, and means to address them, per hierarchy of controls. Confidence in the design	When you have a draft scope
5	**Other safety studies** *HAZOP, FMEA, bow-tie, etc*	Study reports	Per the plan: when they are appropriate in the design lifecycle
6	**Align understanding: SiD programme and roles and responsibilities** *1 hour meeting*	Meeting minutes, signed	At D&C contract kick-off meeting(s)
7	**SID Review of Construction and Commissioning** *Early engagement of C&C staff / update HAZARD REGISTER*	Updated hazard register, with hazards, and means to address them, per hierarchy of controls. Confidence in the design	As soon as there is sufficient information to review. Around 15-40% detail design (scheme design, general arrangements)
8	**Keep track of identified hazards**	Updated hazard register	Throughout the design lifecycle, and into O&M
9	**Safety Report (SiD Report)** *WHS Regulation 295 for Structures – and plant too, according to the guidance for plant*	SiD (Safety) Report	At the end of Detail Design, with the design report. *Format not specified, eg: can put on a drawing.*
10	**Capture lessons learned**	Lessons learned in single register in the organisation	Throughout

SAFETY in Design

Sammary of SiD.

SiD is part of the engineering and design lifecycles ‘Built-in, not bolt-on’ (like quality) It is not difficult

It starts at the beginning Requires a systematic approach **Talk about hazards, and the hierarchy of**

controls Is not risk assessment, but contributes to overall risk reduction

SAFETY in Design

Sammary of SiD.

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HEALTH AND SAFETY

https://www.rics.org/profession-standards/rics-standards-and-guidance/sector-standards/building-surveying-standards/home-surveys/health-and-safety-checklist

Health and safety checklist
This is live content and is supporting information only. It is not intended to be mandatory or prescriptive guidance.

Please refer back to the RICS Home Survey Standard 1st edition Professional Statement, s3.4.2 Safety during the inspection.

RICS members or regulated firms should be familiar with the current edition of Surveying safely: health and safety principles for property professionals RICS guidance note.

RICS has produced a range of practical guides to enable RICS professionals to work safely and in line with government guidelines through the COVID-19 pandemic.

The RICS COVID-19 guide to surveying services: Physical inspections for the purpose of residential valuations and condition-based surveys includes recommendations for before, during and after a physical inspection.

HEALTH AND SAFETY

You can find useful information on vendor liaison and equipment checklist to support the delivery of the service safely and in accordance with existing guidance and relevant legislation.

Whatever the level of service, RICS members must be able to safely undertake the tasks involved or manage others undertaking those same tasks.

The RICS member is responsible for carefully inspecting the property in accordance with the nature and level of service, the terms of engagement and client needs.

Many firms will have their own policies on health and safety considerations for physical inspections. Please refer to your company's policy throughout the delivery of your service.

Pre-inspection
Prior to inspection, ensure you know the location of the subject property and can identify suitable parking.

For health and safety reasons, make sure someone knows where you are and you adhere to lone working policies.

HEALTH AND SAFETY

Make sure your phone has enough power for the inspection . Go to the inspection in daylight wherever possible and organise your day so you are not inspecting buildings in a fading light. If there are limitations to your inspection due to visibility, please advise the client on report delivery.

RICS members need to be familiar with the nature and complexity of the locality in which the subject property is situated and risks associated with hazardous materials . Appendix E Risk to occupants of the RICS Home Survey Standard 1st edition Professional Statement highlights typical safety hazards in residential dwellings that can be found during an inspection. Surveyors should have an awareness of these risks prior to inspection and incorporate them as part of their risk assessment.

Travelling to the inspection
You should be aware of the following occupational road risks when travelling to the inspection. Surveyors should also refer to their own company policies, if applicable.

Weather
The heightened road risk that can be presented by all types of weather conditions, including heavy snow fall, flooding etc and not drive if it is unsafe to do so.

HEALTH AND SAFETY

Tiredness
Driving when tired is a major cause of accidents. You should not drive if you are too tired. Further guidance on driving hours and break periods can be found at the HSE https://www.hse.gov.uk/workplacetransport/drivingforwork.htm

Mobile phones
When using a mobile device, please comply with relevant legislation.
Surveyors should take all necessary precautions to reduce personal risk and should refer to their company policies.

On arrival at the property
Undertake a dynamic risk assessment prior to starting an inspection, subject to the specific property and according to the level of service.
Surveyors should refer to their own company policies on risks assessments for inspections.
Assess the level of risk (high/medium/low), and identify how you plan to minimise the risk. This gives evidence you have considered health and safety issues and may be useful if an accident does happen.

If you decide the identified risks will limit your inspection in any way, it is important that you explain this in your site inspection notes and possibly in your report where it might affect the scope of your inspection.

Lone working

A lone worker (LW) is an employee who performs an activity that is carried out in isolation from other workers without close or direct supervision. Surveyors should refer to their company policies on lone working if applicable.

Personal safety

Due to the solitary nature of the work, lone workers can be vulnerable to personal attack or incidents. No procedure or instruction can cover all possible circumstances, however, every organisation should have adequate procedures in place to ensure the safety and wellbeing of their lone working employees.

In an emergency situation in a remote location, use 112 instead of 999 to call emergency services. In marginal signal areas , there are mobile applications which will automatically pinpoint the caller's position.

For security purposes, many mobile phone owners lock their phones requiring a passcode to be entered to access the device. The majority of mobile phones now provide access to a list of emergency contacts from the locked screen. For android phones this is called ICE (In Case of Emergency), for iPhones this is called 'Medical ID' and can be located via the iPhone Health App.

HEALTH AND SAFETY

This emergency contact facility enables first responders, such as paramedics, firefighters and police offers as well as hospital personnel to contact the owner of the mobile phones emergency contacts, such as next of kin or close friend to advise of an incident and potentially obtain important medical or support information. It is advised to record at least two emergency contact numbers in accordance with their particular handset.

When you arrive at the property, as stated above, try to find a space as close as possible to the destination and avoid parking in concealed areas away from public view. If parking in a cul-de-sac, ensure car is parked facing in the direction of a clear exit. Keep valuables and equipment out of sight.

When you are in someone's property, remember it is their home and you are imposing upon their territory.

When gaining access to the property, state who you are, why you are there and show the person your ID or business card. Check who you are talking to and make sure it is the same person with whom you arranged access. If not, consider carefully whether you should go in.

In some cases, the property may be occupied by a tenant who may know very little about the building or even the fact it is about to go on sale. In these circumstances, an accompanied inspection with the property owner might be better.

HEALTH AND SAFETY

If the only person in the property during the inspection is below the age of 18, or is someone who you judge to be vulnerable in some way, you must postpone your inspection until an adult or carer can be present.

In all instances, surveyors should refer to their company's policies on personal safety.

Dealing with dangerous pets

If dogs or other animals appear threatening, politely ask the vendor/ occupier to keep them out of the way.

It is also important to ask if there are animals outside before you inspect the garden or grounds. If applicable, refer to your company policies on health and safety.

The inspection

When carrying out the inspection, familiarise yourself with the layout of the dwelling and be aware of exit points from the property to enable you to leave safely, and quickly if the need arises.

Remember to keep your car keys, equipment, mobile phone, and/or valuables safe during the inspection. It is best to keep them with you at all times.

HEALTH AND SAFETY

Make every effort not to damage the property. If you do damage anything, it is essential you inform the vendor or occupier immediately. Where the damage is less serious, you need to settle the matter quickly and effectively to make sure you maintain a good relationship with the vendor. Where practical, take photos of the damage for evidence and also inform your employer. If this limits your scope of inspection, highlight limitations on the report.

Surveyors should always refer to company policies when dealing with valuables, occupants' behaviours and/ or risks associated with unoccupied properties, which may disrupt their ability to carry out the inspection. If problems are identified, ensure this is captured in site notes and limitations are reflected in the report.

If you injure yourself during the inspection, consider postponing the inspection until you have recovered.

Property-specific safety issues

Two of the most hazardous parts of a surveyor's job are loft inspections and surveys of derelict property.

RICS members should refer to the current edition of the Surveying safely: health and safety principles for property professionals, RICS guidance note and the Health & Safety executive.

HEALTH AND SAFETY

Below is some useful information on safety for each of these.

Safety during loft inspections
Inspecting a roof space can present the greatest and most regular risk during a surveyor's day. Below are a few tips:

To use a ladder, the user must be competent, have had instructions and understand how to use the equipment safely.

Training will ensure that sufficient skills, knowledge and experience are provided to perform the task.

Ladders should be inspected to ensure safety and in accordance with company policies. A detailed ladder inspection should be undertaken by a competent person and recorded on organisations Statutory Ladders Register. This record should be kept for the lifespan of the ladder. There are a number of BSI standards for ladders which can be found here. Further information can also be found at the Ladder Association here.

HEALTH AND SAFETY

Working at height should be avoided where it is reasonably practicable to do so. Where work at height cannot be avoided and depending on the agreed nature of service, ensure you take precautions to safely deliver the service and utilise the e right type of equipment. Where the risk cannot be eliminated the surveyor should:

Do as much work as possible from the ground.
Ensure they can get safely to and from where they are working at height.
Ensure equipment is suitable, stable and strong enough for the job; maintained and checked regularly.
Make sure they do not overload or overreach when working at height.
Take precautions when working on or near fragile surfaces.
Use an approved stability device (where an in-built stability device is not present) for any equipment used to work at height.
Where applicable, wear personal protective equipment in the form of hard hat to provide protection from falling objects.
Consider emergency evacuation and rescue problems.
If weather conditions compromise safety when working at height, the activity should not proceed.
When using ladders, surveyors should know how to set up ladders and stepladders in the correct, safe manner.

HEALTH AND SAFETY

Surveyors should refer to existing company policies and the current edition of the Surveying safely: health and safety principles for property professionals, RICS guidance note.

Users should be competent, trained and instructed to use the equipment safely. Manufacturer's instructions should be referred to.

Roof Voids
Surveyors should carry out an inspection of roof space that is not more than 3 metres above floor level using a ladder if it is safe and reasonable to do so.

Surveyors will need to have to look inside roof voids and often enter into them. In all cases, the Surveyor should judge whether it is practicable, permitted and safe to carry out a roof void inspection. If not, the inspection should not be attempted and the reasons why made clear in the site notes and report.

There are obvious risks when entering a loft space and the aim is to eliminate or reduce the risk of an incident arising from the various hazards encountered. In this instance the hazard is unknown and so to enter a loft, it needs to be assessed that the method is safe and the equipment stable for both the climb and when moving off the access equipment into the loft.
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HEALTH AND SAFETY

Before entering, look up as far as you can see to look out for obstructions or dangers. Use a torch if necessary. Look for signs of infestation that might be dangerous such as wasps, rodents, squirrels, bats etc. Ensure compliance with legislation in relation to legally protected species i.e. bats. Please refer to the Wildlife and Countryside Act (1981) (as amended) for further information.

Be careful not to touch contaminated areas as there is risk from urine, faeces etc.

If floor decking is fitted, check its suitability and whether it is securely fixed down.. Check for protruding nail heads and other hazards which may cause injury and do not walk where you cannot establish safe footing.

If loose or breaking up asbestos is seen, exit the roof immediately causing as little disturbance to the material as possible and follow your company's emergency procedures.

In all instances, if it is not deemed to be safe, do not enter roof void but carry out a head and shoulders inspection from the loft hatch.

Surveyors should refer to own company policies and highlight risks that may limit the inspection in the report.

Flat Roofs

The Surveyor should judge whether it is practicable, permitted and safe to carry out a flat roof inspection. If it is not considered safe, the flat roof inspection should not be attempted and the reasons why made clear in the site notes and report.

Without risk of causing damage to the property or injury to the Surveyor, a flat roof should be visually inspected from vantage points within the property and/or by using a ladder externally where there is safe and reasonable access to a flat roof(s) not more than 3m above ground level.

This would include looking out for dangerous materials, a variety of animals and inspects in the loft and personal safety relating to dust.

When inspecting roofs, surveyors should refer to their company policies, comply with relevant legistlation and ensure risks are recorded in site notes. If this limits the scope of inspection, the limitations should be clearly highlighted to the client in the report.

Derelict and empty properties
Some of the properties you inspect will be empty. If this is the case, clarify how you are going to gain access to the property as part of your vendor liaison pre-inspection process.

HEALTH AND SAFETY

Being alone in an empty dwelling increases the level of risk, surveyors should be aware of risks in relation to empty properties.

Properties left empty for long periods of time can become neglected allowing defects to develop quickly. Stagnant conditions can allow dormant wood rot to weaken timber floors and roof leaks will cause ceilings to collapse. Vandalism will often result in broken glass and sharp edges throughout the dwelling and drug-using squatters may leave contaminated syringes. Take the following precautions:

dress in robust and durable clothing including footwear that is suited to the conditions;
ensure you have a powerful torch with you, as many rooms may have their windows boarded over and will be in virtual darkness;
look for dangling wires, bare cables and a smell of gas, as electric and gas services in empty properties can pose a danger especially if damaged through vandalism; and
be prepared during the winter, as empty properties can be cold.
If you discover an unauthorised person(s) at the property, inform the person responsible for the property and ask them to contact you when it is safe to inspect.

The same approach is appropriate if you discover signs of unauthorised occupation and/or the property is unsecured.

HEALTH AND SAFETY

RICS member/ regulated firm will continue to use professional judgement and undertake a dynamic risk assessment to deliver their role safely and in accordance with best practice guidance, standards and legislations.

RICS members and RICS regulated firms are expected to behave ethically and professionally, while taking adequate steps to consider health and safety at all times for all parties involved.

Refer to the to the RICS Home Survey Standard 1st edition Professional Statement and make sure any limitations are clearly highlighted to client as part of your service delivery.

In addition, refer to your own company policies on health and safety.

The information contained here is regularly reviewed to support members in safely delivering the highest level of service

HEALTH AND SAFETY

Health and safety is a level 2 mandatory competency for all APC candidates.

PROPERTY JOURNAL

An A–Z of health and safety for APC

An understanding of workplace health and safety is essential for working in surveying. What are the key points that candidates need to be aware of when demonstrating this competency for the APC?

https://ww3.rics.org/uk/en/journals/property-journal/health-and-safety-apc.html

It requires an understanding of 'the relationship between the:

work of the surveyor and health and safety issues.

HEALTH AND SAFETY

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'Candidates should understand the legal, practical and regulatory requirements. They should have a detailed understanding of the health and safety processes and guidelines used to achieve this'.

Asbestos: use of asbestos was comprehensively banned in the UK in 1999, although it is still found in the construction of many buildings. When disturbed and breathed in, it can lead to an often fatal disease known as asbestosis. Surveyors need to be aware of asbestos-containing materials, such as decorative plaster and pipe insulation, as well as familiarising themselves with the current edition of RICS' Asbestos professional standard and the Control of Asbestos Regulations 2012.

Breach: a breach of the Health and Safety at Work etc. Act 1974 can lead to an unlimited fine, up to two years in prison, or both. It is, therefore, very important for employers to adhere to this legislation by providing safe systems of work, safe equipment and training for employees.

Construction (Design and Management) (CDM) Regulations 2015: these place various responsibilities for health and safety on key duty holders, including the client, principal designer and principal contractor.

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Gas: the Gas Safety (Installation and Use) Regulations 1998 require residential landlords to keep all gas apparatus and pipework in a safe condition, with an annual check undertaken by an engineer on the Gas Safe Register. The landlord must give the tenant a copy of the gas safety check certificate before moving in or within 28 days of the check being carried out.

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Related article
An A–Z of client care for APC

Read more
Health and Safety at Work etc. Act 1974: this is the key UK legislation in this area, requiring employers to be responsible for the health and safety of their employees by training staff and providing safe equipment and working environments. It also requires employees to take responsibility for their own health and safety and that of others under their duty of care; for example, colleagues on site visits.

HEALTH AND SAFETY

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Injuries: under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR), employers must report and record work-related accidents that cause serious injuries or deaths, as well as specified industrial diseases, such as occupational asthma, and dangerous occurrences, such as plant or equipment coming into contact with overhead power lines.

Jurisdiction: candidates need to be aware of the health and safety legislation applying to the jurisdiction that they work in. For example, in the UK this is the 1974 Act, while in Ireland it is the Safety, Health and Welfare at Work Act 2005 (as amended).

(Approved Document) K: Part K of the Building Regulations relates to protection from falling, collision and impact. This includes requirements for glazing, stairs, ladders, ramps, balustrades and handrails.

Legionnaires' disease: legionella bacteria can be released into the air by water systems such as air conditioning or hot tubs, causing a form of fatal pneumonia known as legionnaires' disease. Regular maintenance of equipment and keeping water temperatures between 20°C and 45°C can help to reduce the risk.

HEALTH AND SAFETY

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'Employers must report and record work-related accidents that cause serious injuries or deaths, as well as specified industrial diseases'

Manslaughter: corporate manslaughter, or corporate homicide in Scotland, is an offence under the Corporate Manslaughter and Corporate Homicide Act 2007. This offence occurs when a company breaches its duty of care, such as a management failure, and this leads to the death of a contractor or an employee. Penalties under the act include an unlimited fine, prison sentence and disqualification as a company director.

New environments: when a surveyor enters or inspects a new environment, they must assess the risks dynamically. This means being aware of their surroundings and anticipating that unforeseen hazards may arise, such as a dog in a residential property or asbestos in an industrial building. The surveyor will then need to adapt their inspection routine or actions accordingly, to minimise the risk of harm. In the worst case, this could mean withdrawing from the inspection, recording this limitation in their report and visiting the site again when it has been made safe.

HEALTH AND SAFETY

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Occupiers' liability: those in control of premises have a duty of care towards visitors under the Occupiers' Liability Act 1957, and to trespassers under the Occupiers Liability Act 1984. A higher duty of care is owed to visitors than trespassers, as the latter do not usually have consent to be on the premises and their presence is unknown to occupiers. The law still provides trespassers with some form of protection, however, as a common duty to all.

(Approved Document) P: Part P of the Building Regulations requires that, apart from exempt minor work, any works to fixed electrical installations must either be carried out by an electrician registered with a government-approved competent person scheme such as NICEIC or ELECSA, or be reported to the local authority's building control team. Work must be undertaken to the requirements of BS 7671: 2018 + A2: 2022 and a safety certificate issued on completion.

Quick or slow? Health and safety is not something that can be rushed. Firms should take the time to carry out risk assessments and train their employees to a suitable level of competence, while employees need to understand how to work safely and use personal protective equipment appropriately.

HEALTH AND SAFETY

Health and safety is a level 2 mandatory competency for all APC candidates.

Regulation 4: the fourth of the Control of Asbestos Regulations 2012 requires the duty holder – that is the owner of the premises or the tenant with a full repairing lease – to manage asbestos if it is or is presumed to be present.

Safe word: having a safe word or phrase agreed with your office is advised in the event of emergency. This could be as simple as asking the office to 'Call Mrs Jones'. This can alert your colleagues and/or employer to potential danger or a health and safety issue without drawing attention to yourself or your situation.

Toxic substances: under the Control of Substances Hazardous to Health (COSHH) Regulations 2002, employers need to control exposure to substances or materials that cause harm to health. Examples include dust, gases, fumes, liquids, gels and powders from sources such as paint, cleaners, solder fumes, blood and waste. Risk assessment is required to identify the health hazards, prevent harm, take control measures and provide training, monitoring and emergency planning.

HEALTH AND SAFETY

Health and safety is a level 2 mandatory competency for all APC candidates.

Unpleasant odours: if a local authority receives a complaint about a business or industrial premises, odours can be classed as a statutory nuisance under the Environmental Protection Act 1990. The smell must unreasonably and substantially interfere with the use of another premises, whether residential or commercial, or injure or be likely to injure the health of a person. An abatement notice can be served to try to restrict the odour being emitted. Examples of such nuisances include spreading agricultural slurry, poor extraction from commercial kitchens, smells from abattoirs, and solvents from workshops.

Vehicles: surveyors are often on the road driving between home, office and sites. This presents myriad risks, including vehicle safety, driving proficiency, planning and managing journeys, safety when parking, travel times, posture issues and stress. Driving to a site late in the day in the winter could for instance present risks of bad weather, ice and darkness. Such risks need to be controlled by both employers and surveyors, managing site visits and ensuring that vehicles and employees are equipped for poor conditions. If in doubt, though, surveyors should not travel and postpone inspections.

'Employers and surveyors must manage site visits and ensure that vehicles and employees are equipped for poor conditions'

HEALTH AND SAFETY

Health and safety is a level 2 mandatory competency for all APC candidates.

Workplace stress: stress in the workplace has multiple causes, including unreasonable demands, lack of control, insufficient support, difficult relationships, unclear job roles and changes in the working environment. Such stress can have a severe impact on employees' mental and physical health, and needs to be identified and dealt with as soon as possible. It can lead to absence, errors, and resignations, as well as long-term impacts on the person themselves.

X-ray scanning: this can be used as a non-destructive and non-contact method of identifying pipework and electrical installations inside buildings or under the ground. This means that plans can be drawn up and work undertaken safely, mitigating the risk of harm to staff or contractors.

Yearly checks: employers should review their health and safety risk assessments at least once a year, or more regularly if risks change substantially. This ensures that any changes are reflected in the assessment, and that appropriate control measures are introduced. Various legislation, such as the Gas Safety (Installation and Use) Regulations 1998 and the Electrical Safety Standards in the Private Rented Sector (England) Regulations 2020, require annual checks.

Health and safety is a level 2 mandatory competency for all APC candidates.

Zone: in bathrooms, electrical safety is managed through the use of various electrical zones. These are set out in the current edition of the Institution of Engineering and Technology's Wiring Regulations. Zone 0 is inside a bath, basin or shower; that is, any area that can hold water. Zone 1 is the splash zone, where the electrical installation could get wet but would not be underwater. Zone 2 extends to 600mm above or to the sides of a bath or shower, which could be splashed but is unlikely to get soaked. There are different requirements for what can be installed in each zone in terms of the maximum voltage and the ingress protection rating (under BS EN 60529:1992).

Jen Lemen FRICS is co-founder of Property Elite
Contact Jen: Email

Related competencies include: Health and safety

HEALTH AND SAFETY

Health and safety: understanding responsibilities
Safety first 12 June 2019

Appropriate management of health and safety is a requirement for all RICS-regulated firms and RICS members, and APC candidates must understand the principles and responsibilities at both a corporate and an individual level
The Health and safety competency must be achieved by all RICS members to Level 2, across all RICS pathways. To achieve Level 1 the competency description states that APC candidates must 'Demonstrate knowledge and understanding of the principles and responsibilities imposed by law, codes of practice and other regulations appropriate to your area of practice'. To achieve Level 2, candidates must 'Apply evidence of practical application of health and safety issues and the requirements for compliance, in your area of practice'.

When completing the summary of experience at Level 1, candidates are required to have a good knowledge of personal safety both on site and in the office. Good sources of reference are Surveying safely: health and safety principles for property professionals (2nd edition), RICS guidance note and the Health and Safety at Work etc Act 1974, or else the relevant health and safety guidance for your region. Importantly, these sources link to the procedural requirements imposed by law.

HEALTH AND SAFETY

Depending on your work specialty, you may have received training in, for example, The Construction (Design and Management) Regulations (CDM) 2015, asbestos awareness or fire safety. You may also have had a site induction, hold a Construction Skills Certification Scheme card, or have knowledge of the process of risk assessment. Candidates should have a clear understanding of how the design, construction and maintenance processes affect employee health and safety, and be familiar with the guidance specific to your area of practice and, wherever possible, link your knowledge to its source, such as CDM 2015.

When completing your summary of experience to achieve Level 2, think about health and safety-related activities that are part of your job, and link these to the examples in the competency description in order to ensure that your work complies with the Level 2 requirement to provide some project- or process-specific real-life examples.

There are several questions to consider.

HEALTH AND SAFETY

There are several questions to consider.

What steps do you take before visiting a site or property?
What personal protective equipment do you need and why?
Have you had to deal with a specific health and safety situation?
Do you review health and safety proposals in tenders?
What is your role in relation to responsibility for health and safety, or as defined under legislation such as CDM 2015?
Do you hold a formal health and safety qualification?
Once you have completed your summary of experience, you can focus on the final assessment. Health and safety questions will be asked either by 1 of the assessors, or be included in the chairperson's questions towards the end of the interview. While addressing questions on a technical competency or on your summary of experience, the assessors may see a link to health and safety and choose to explore this. For example, perhaps you have written about inspecting a derelict property, or experiencing project delays due to asbestos being discovered – either of these topics could generate questions on health and safety.

HEALTH AND SAFETY

There are several questions to consider.

Health and safety is everyone's responsibility: all members must be able to demonstrate an understanding of both their own and others' health and safety obligations and have experience in executing good health and safety practices. Passing the APC is just the 1st stage – the objective is to maintain this level of knowledge and understanding throughout your career.

Susan Hanley FRICS is director of the APC Academy and RICS regional training adviser for Scotland.

Further information

Related competencies include: Health and safety

This feature has come from the RICS Construction Journal (June/July 2019)

Related categories: Health and safety in construction, CDM regulations, Fire and life safety

Keep Up

End of Lecture 02

Thanks for attentions

شكرا لكم

السلام عليكم ورحمة الله وبركاته