

GUIDANCE

Construction

(Jersey) Regulations 2016



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Contents

Foreword	5
Introduction	7
Part 1 Application and interpretation	
Key definitions relating to the application of the Regulations	9
Key definitions relating to construction activities	10
Key duty holders	12
Part 2 The planning and management of construction projects	
Specific responsibilities of duty holders	15
Client's duties	15
Health and safety project coordinator's duties	17
Designer's duties	18
Duties of the principal contractor	20
Contractor's duties	22
Duties of all construction workers	24
General requirements	28
Requirement to control risk	28
Responsibility to provide information	29
Joint responsibility	29
Consultation	30
Occupational health and safety training	30
Part 3 Specific requirements	
Existing services	33
Electricity supply	33
Safe place of work, access and egress	34
Traffic control	34
Protecting the public	35
Excavations	36

Work at height	37
Fragile surfaces	40
Falling objects	40
Hoists	41
Information in records of inspection	42
Housekeeping	43
Lighting	43
Occupational health and welfare	44
Emergency procedures	47
First-aid and medical attention	47
Part 4 Supplementary guidance	
Appendix 1 Notification	51
Appendix 2 Construction phase plan	53
Appendix 3 Health and safety file	55
Appendix 4 Pre-construction information	56
Appendix 5 Application of the Regulations to domestic clients	57
Appendix 6 Managing electrical safety in construction	58
Appendix 7 Work at height	64
Appendix 8 Record of inspections	73
Contacts	77



Foreword

The construction industry in Jersey has, for many years, consistently been the industry sector where people are most likely to suffer an accident or ill health at work. As well as serious injuries being sustained through accidents, many others suffer ill health such as musculoskeletal disorders, dermatitis or respiratory illnesses. The hazards are not, however, restricted to those working on sites – children and other members of the public can also be injured when construction activities are not adequately controlled.

The Health and Safety (Management in Construction)(Jersey) Regulations 2016, which replaced the Construction (Safety Provisions)(Jersey) Regulations 1970 and the 'Managing Health and Safety in Construction: Approved Code of Practice' (ACoP 11), are seen as a major step forward in gaining improvements in health and safety performance within this high risk industry, and to achieve a safer working environment for all construction workers.

It is recognised that an essential aspect of gaining improvements in the management of risks posed by construction work is achieved by focusing on the planning and management of construction work right from the very start of the project.

This publication aims to provide guidance to all those involved in construction on how to sensibly plan construction work so the significant risks are managed from start to finish, and ensure the structure is safe to build, use, maintain and eventually demolish. Following the guidance will help ensure duty holders are complying with their legal responsibilities.



Tammy Fage

Director of Health and Safety



Introduction

What do the Regulations seek to achieve?

The Health and Safety (Management in Construction)(Jersey) Regulations 2016 came into force on 1 October 2016. The Regulations set out a number of detailed requirements for ensuring health and safety in the construction industry by requiring risks to be systematically identified and controlled.

The Regulations deal with the planning, organisation, control, monitoring and review of health and safety throughout the whole construction process, from initial concept and design through to eventual demolition of a building or structure.

Who is the guidance for?

This guidance provides advice for all those who have duties under the Regulations, including clients, designers, contractors, employers, the self-employed and employees.

The aim is to provide guidance on the legal requirements for people who carry out all kinds of construction work including general building and construction work, refurbishment work, maintenance and repair, engineering construction and civil engineering.

How should the guidance be used?

This guidance sets out the Regulations and provides practical, technical and legal advice on how to comply with them.

The guidance is not an authoritative interpretation of the Regulations, however, and does not take the place of the actual Regulations themselves. Whilst every care has been taken in the preparation of this publication, the States of Jersey cannot accept any responsibility in Law for its contents as any interpretation of the Regulations will ultimately be a matter for the Courts.

The Health and Safety (Management in Construction)(Jersey) Regulations 2016 may be viewed on the official website of the Jersey Legal Information Board: www.jerseylaw.je

Further advice on specific matters may be sought from the Health and Safety at Work Inspectorate, Social Security Department.

How is the guidance structured?

This publication is divided into four parts:

Part 1 covers the application of the Regulations and provides guidance on key definitions.

Part 2 covers the planning and management of construction projects to ensure health and safety is taken into account from the very beginning of the process.

Part 3 sets out the specific requirements for controlling and supervising site activities during the construction phase.

Part 4 includes supplementary guidance.

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Part 1

Application and interpretation

The Regulations apply to all types of construction work.

Parts 1 and 2 of the Regulations set out various definitions that apply for the purposes of the Regulations and identify what each duty holder has to do to comply with the Law to ensure projects are carried out in a way that secures health, safety and welfare.

The guidance in this section does not detail or explain all of the Regulations in Parts 1 and 2 individually but is designed to provide sufficient advice on the key requirements to be able to understand their overall application and intention. Similarly, not all of the definitions set out in the Regulations are repeated in this guidance but the key definitions which warrant further explanation are included.

Key definitions relating to the application of the Regulations

Construction work: means any work of construction, alteration, conversion, fitting-out, commissioning, renovation, repair, maintenance, de-commissioning, demolition or dismantling of any structure, and includes:

- the demolition or dismantling of a structure and the removal from the relevant construction site of any product or waste resulting from the demolition or dismantling
- the assembly of prefabricated elements to form a structure or the disassembly of prefabricated elements which, immediately before such disassembly, formed a structure
- the installation, commissioning, maintenance, repair or removal of mechanical, electrical, gas, compressed air, hydraulic, telecommunications, computer or similar services that are normally fixed to a structure; and
- any work of excavation, landscaping, preparatory work, or site preparation carried out for the purpose of any work or activity referred to in this definition (otherwise than in this sub-paragraph)

The definition does not include the exploration for or extraction of mineral resources or preparatory work relating to the extraction carried out at a place where such exploration or extraction is carried out.

Service: means a gas, water, sewerage, communication, or electrical, service or other service, such as a chemical, fuel or refrigerant line.

Structure: means any building, steel or reinforced concrete construction, crane, ramp, dock, ship, harbour, tunnel, shaft, bridge, viaduct, waterworks, reservoir, pipe or pipeline

(whatever it contains or is intended to contain), structural cable, aqueduct, sewer, sewerage works, gasholder, road, airfield, sea defence works, drainage works, earthworks, constructed lagoon, dam, wall, mast, tower, pylon, underground tank, earth-retaining construction, fixed plant, construction designed to preserve or alter any natural feature, and any other similar construction; or any formwork, falsework, scaffold or other construction designed or used to provide support or access during construction work.

Key definitions relating to construction activities

Construction project: means the whole construction package, including the design, preparation and planning of the work, through construction to final completion.

Whilst the Regulations apply to all construction projects, including those carried out by a single contractor, certain duties are limited in their application in a manner which is proportionate to the size of the project and risks involved in the work. Two key definitions which set the thresholds at which additional requirements apply are:

A minor construction project: any construction project on which 2 or more contractors are engaged.

A major construction project: any project where construction work will last more than 30 working days or involve more than 500 person days (for example 50 people working for more than 10 days).

Construction site: means any place where construction work is being carried out, including areas used for the storage of plant and/or materials.

Pre-construction phase: is any period of time during which design or preparatory work is carried out for a construction project.

Construction phase: is the period of time during which construction work is being carried out, including activities such as intrusive site investigations, enabling works and setting up the site facilities (e.g. welfare facilities, site office etc.) through to handover of the completed structure.

Construction phase plan: is a site specific management document, prepared by the relevant contractor before construction work starts, which sets out the health and safety arrangements, site rules and measures for controlling project-specific risks. The plan must be monitored, maintained and kept up to date as the construction work progresses. Further guidance on what information should be included in a construction phase plan is included in appendix 2.

Design: includes drawings, design details, scope-of-work documents and specifications (including calculations prepared for a design) relating to a structure.

Health and safety file: is a document prepared by the principal contractor (for minor construction projects) or the health and safety project coordinator (on major construction

projects) which contains relevant information about the current project which is needed to ensure health and safety during any subsequent work on the structure, such as maintenance, cleaning, refurbishment or demolition. Further guidance on what information should be included in a health and safety file is included in appendix 3.

High risk construction work: means construction work involving

- work at height
- work on masts, towers, or pylons, used for telecommunications or for radio or television transmission
- demolition
- the disturbance or removal of asbestos
- structural alterations that require temporary support to a structure to prevent its collapse
- a confined space
- excavation into a hillside or re-profiling of an existing slope (whether man-made or natural)
- excavation where it is to a depth greater than 1.2 metres
- the construction of tunnels
- the use of explosives
- work on or near pressurised gas distribution mains or pressurised gas consumer piping
- work on or near chemical, fuel or refrigerant lines
- work on or near energised electrical installations or energized electrical services
- work in an area that may have a contaminated or flammable atmosphere
- hot work (i.e. any work involving burning, welding, cutting, grinding, using fire or spark-producing tools or is otherwise capable of producing a source of ignition)
- work using pre-cast concrete or other forms of pre-fabricated structural elements
- work on or adjacent to roadways used by road traffic
- work on a construction site involving mobile plant that is capable of movement through the action of motors or engines
- work in an area where there are artificial extremes of temperature
- work in, over or adjacent to water, or another liquid, where there is a risk of drowning
- diving
- lifting operations using cranes
- work where a cofferdam or caisson is constructed, placed in position, substantially added to, altered or dismantled.

Pre-construction information: is information already in the client's possession, or which can reasonably be obtained through sensible enquiries, needed by those tendering for, designing, planning, pricing and managing the proposed construction work. It should contain relevant site-specific detail about the project, the management arrangements, significant health and safety issues which will need to be addressed, and any information in an existing health and safety file. Further guidance on the requirements for pre-construction information is contained in appendix 4.

Safe work method statement: is a document required to be prepared for all high risk work (as defined in the Regulations). It should contain an assessment of the risks associated with the high risk work, and set out how these will be adequately controlled. It should also specify the equipment required and the minimum level of qualifications and training required to carry out the work safely.

Work at height: means work carried out in any place where, if no precautions were taken, a person could fall a distance liable to cause personal injury. This includes work being carried out at or below ground level and whilst gaining access or egress from a place of work, apart from when using a staircase in a permanent workplace.

Key duty holders

Under the Regulations there are a number of defined duty holders who have specific responsibilities. Organisations or individuals can carry out the role of more than one duty holder provided they have the necessary skills, knowledge and experience. The key duty holders are as follows:

A **Client** is somebody for whom a construction project is carried out. The definition covers both non-domestic clients, i.e. 'commercial clients', and 'domestic clients', however, there is an important distinction between how the duties imposed by the Regulations are discharged between the two types of client. The Regulations apply in full to commercial clients, but for domestic clients Regulation 6 passes the client's duties onto the designer. Where there is no designer, the duties pass to the contractor in control of the project. A flowchart showing the application of the Regulations to domestic clients is contained in appendix 5.

Commercial clients are organisations or individuals who commission design work for a construction project, or for whom a construction project is carried out, in connection with a business, whether the business operates for profit or not.

Domestic clients are individuals who have construction work carried out on their own home, or are having a house built for them to live in and the work does not relate to a trade or business.

It is the type of client that matters, not the type of property. Housing associations, charities (who employ people) and other businesses may own domestic property, but they are not

domestic clients. If the work is being carried out in connection with the furtherance of a business attached to domestic premises, for example, a shop, the client would not be a domestic client for the purposes of that work.

Designers are those who, as part of a business, are involved in the preparation or modification of designs for a structure, product or system relating to a construction project.

It is important to recognise that design is a function, not necessarily an appointment. Anyone who makes decisions that result in design changes, which extends to include the specification of working methods and materials, is classified as a designer in respect of the specific matters to which they have so influenced, under the Regulations. This can include, for example, clients, quantity surveyors, engineers, contractors etc. As a result there will often be multiple designers and changes of designers on construction projects.

A **Contractor** is someone who directly carries out, manages or controls construction work.

A **Relevant contractor** is the sole contractor involved in the construction work or project. If there is more than one contractor involved with the work or project, it is the principal contractor.

A **Principal contractor** is appointed by the client to coordinate the construction phase of a project where the project involves more than one contractor.

A **Health and safety project coordinator** is appointed by the client when the construction project falls within the definition of a 'major construction project' in order to coordinate health and safety during the pre-construction and construction phases of the project.



Part 2

The planning and management of construction projects

Parts 1 and 2 of the Regulations also set out the general requirements related to the planning and management of construction projects, such that the risks involved are systematically identified and controlled throughout the whole construction process from conception to completion. The Regulations are intended to integrate health, safety and welfare into the management of the project and encourage all parties involved to work together.

In essence the Regulations seek to address the key elements to securing health, safety and welfare, which include:

- managing the risks by applying the general principles of prevention (i.e. risk assessment)
- appointing competent people and/or organisations at the right time
- ensuring everybody has the appropriate level of information, instruction, training and supervision they need to carry out their work safely and without risk to health
- ensuring effective cooperation, communication and coordination between duty holders
- consulting and engaging with workers to promote and develop effective measures to secure health, safety and welfare

Specific responsibilities of duty holders

The table on pages 26 and 27, summarises the key roles and responsibilities of the various duty holders under the Regulations.

Client's duties (Regulation 7)

It is acknowledged that most clients, particularly those who only occasionally commission construction work, will not be experts in the construction process. They do, however, have a major influence over the way a project is procured and managed; having contractual control, including the appointment of designers and principal contractors, and ultimately determining how much money, time and other resources are available.

In view of this, although the client is not required to take an active role in managing the work, they must satisfy themselves that suitable arrangements are in place to ensure the project is properly managed.

When considering the extent of the client's duties, and what would be considered 'reasonable' or 'suitable' to achieve, this will be proportionate to the size of the project and risks involved in the work. Small, straightforward projects will not require the same depth of investigation or time allocation as large, complex projects or where specialist skills are needed to tackle specific hazards.

For **all** construction projects, the client must take reasonable steps to:

- ensure that all people appointed to work on the project are competent, i.e. have the necessary skills, knowledge and experience to carry out the work safely, and have the necessary resources to do so. 'Reasonable' steps should be proportionate to the context of the specific project, i.e. its scale, complexity and the inherent risks. This may include reviewing individual qualifications, accredited membership of established professional organisations, experience of similar work etc.
- ensure there are suitable arrangements in place for the management of health, safety and welfare during the project. For example, ensuring the roles, functions and responsibilities of the project team are clearly set out, there are effective mechanisms for communication and cooperation between them
- ensure a realistic timeframe and budget is allocated for each stage of the project, from design concept to completion
- provide relevant pre-construction information to all designers and contractors engaged on the project. This includes information already in the client's possession and that which is reasonably obtainable by, or on behalf of, the client. The information must be relevant to the specific project, have an appropriate level of detail and be proportionate to the risks involved. Examples include an existing health and safety file produced as a result of earlier construction work, an asbestos or contaminated land survey, structural drawings etc.

For **minor construction projects**, i.e. when more than one contractor is involved with the work, in addition to the above duties, the client must appoint, in writing, a principal contractor and ensure a construction phase plan, prepared by the principal contractor, is in place before construction work starts.

The appointment of the principal contractor should be made as early as possible in the pre-construction phase to enable them to help the client meet their duty to ensure a construction phase plan is drawn up.

For **major construction projects**, i.e. the construction work will last more than 30 working days or involve more than 500 person days, the client has to, in addition to all of the above:

- appoint, in writing, a health and safety project coordinator. This appointment should be made as early as possible in the design process, and if practicable, at the concept stage

- provide relevant information to the health and safety project coordinator for the health and safety file
- ensure the health and safety file is kept available for anybody who needs it – usually the lifetime of the building – to enable them to comply with health and safety requirements during any subsequent work. If the client disposes of their interest in the premises, they should pass the health and safety file on to whoever takes them over

The client must ensure that when a health and safety project coordinator and/or principal contractor is required to be appointed for a project, such appointments are in place at all times until the project ends. This does not necessarily mean that they need to be the same individual or organisation for the entire duration of the project, just that one must always be in place.

Health and safety project coordinator's duties (Regulation 8)

The role of the health and safety project coordinator is to provide the client with a key project advisor in respect of construction health and safety risk management matters. Through early involvement with clients and designers, the health and safety project coordinator can make a significant contribution to reducing risks to workers during construction, and to those who work in or on the completed structure.

The health and safety project coordinator must:

- as soon as possible after appointment, notify the Health and Safety Inspectorate of the construction project in accordance with Regulation 9. Where necessary, send any modifications or updates, making it clear that they relate to an earlier notification. The specific requirements relating to notification set out in Regulation 9 are contained in appendix 1
- advise and assist the client in order to help them comply with their duties. The level of advice and support required will depend on the knowledge and experience of the client and the complexities of the project
- coordinate the health and safety aspects of the design work to check that appropriate design risk management procedures have been used to eliminate or reduce hazards during the design process, and that the different design elements work together without causing danger
- facilitate effective communication, and manage the flow of information, between the client, designers and contractors
- facilitate effective cooperation and coordination between all parties involved with the project

- liaise with the principal contractor regarding any ongoing aspects of the design, and ensure that sufficient information has been provided by the designer on any significant residual risks which will need to be managed during construction
- identify and collect the relevant pre-construction information, and advise the client if any specific action needs to be taken, e.g. commissioning an asbestos survey etc., to fill in any significant gaps. Pass on any parts of the pre-construction information to those involved with the construction phase of the project that are relevant to their work
- prepare and update a relevant, user friendly, health and safety file suitable for future use once the construction phase has finished

Designer's duties (Regulations 10 and 11)

Designers are in a unique position to reduce the risks that arise during construction work and therefore have a key role to play in helping to ensure the health and safety of not only those involved with the construction of a structure, but also those who will use, maintain, clean, refurbish and eventually demolish it.

Decisions such as selecting materials that are lighter to handle or windows that can be cleaned from inside can avoid or reduce the risks involved in constructing the building and maintaining it afterwards.

It is important to recognise that designers are anybody who specifies or alters a design. This includes architects, civil and structural engineers, building surveyors, quantity surveyors, landscape architects etc. The definition of a designer also extends to those who select products for use in construction, or who purchases them where the choice has been left open.

For **all** construction projects, designers should:

- make sure that the client is aware of their duties under Regulation 7. This will usually be addressed as part of routine business, and can take the form of a standard letter provided as part of the contractual documentation
- before construction work starts, take into account the risks people may be exposed to during the construction and subsequent use of the structure, and apply the general principles of risk reduction and health and safety management in design:
 - eliminate, so far as is reasonably practicable, foreseeable risks through design. For example, locating air-conditioning units at ground level rather than on the roof
 - where this is not possible, reasonably practicable steps should be taken to reduce the risks or control them through the design process,

for example, locating the air-conditioning units within a building on the roof or within fixed barriers so maintenance workers have a safe means of access and working place; specifying lightweight blocks to reduce the risk of musculoskeletal disorders etc.

- where, after the risk reduction measures above have been fully applied, the designer must provide sufficient information about the remaining significant risks to other relevant duty holders to enable these to be properly managed. Insignificant risks, or those arising from routine construction activities do not need to be highlighted, just those that are unusual or difficult to manage, or risks that may not be obvious from the drawings or a site visit, and which even a competent contractor may overlook when considering the work

Designers are not expected to consider or address risk which cannot be foreseen, and it is acknowledged that there will, almost inevitably, be some residual risks which cannot be designed out. However, designs must not be produced that cannot be constructed, maintained, used or demolished in reasonable safety.

Health and safety risks need to be considered alongside other factors that influence design such as cost, buildability, aesthetics, fitness for purpose etc. Working with contractors involved in the project at an early stage can help identify the potential risks and ways that they may be controlled.

The greater the health and safety risk, the greater the weight that must be given to eliminating or reducing it. Similarly, the level of information required on residual risks should be proportionate to the risk.

In the case of a **minor construction project**, the designer must, in addition to the above, ensure that the client has appointed a principal contractor (unless the client is the principal contractor).

In the case of a **major construction project**, the designer must, in addition to all of the above:

- ensure the client has appointed a health and safety project coordinator (unless the client is the health and safety project coordinator)
- take all reasonable steps to ensure that all relevant information needed for the health and safety file is provided

If a design is prepared or modified outside Jersey for use in construction work in the Island, the designer's duties apply to the person or organisation who commissions the design if they are established in Jersey. If they are not established in Jersey the designer's duties fall to the client.

Duties of the principal contractor (Regulation 12)

The principal contractor, in liaison with the client and designer, has an important role in managing the risks of construction work and providing strong leadership to ensure good standards of health and safety on site are understood and followed.

The principal contractor must have the necessary skills, knowledge and experience to carry out the role effectively, which should be proportionate to the scale and complexity of the project and the nature of the risks involved. The principal contractor should be appointed by the client as early as possible in the project and must be appointed before construction work starts.

In addition to the duties imposed on all contractors under Regulations 13, for **all** projects where a principal contractor is appointed (i.e. where more than one contractor is involved in the project), the principal contractor must also:

- plan, manage and monitor the construction phase, in liaison with other duty holders, to ensure health and safety risks are adequately controlled. This must take into account the pre-construction information provided by the client and any other information provided by contractors.

The principal contractor must develop good cooperation and coordination between all the contractors involved with the project from an early stage. Information about risks and precautions should be shared when it is needed to plan and manage the work, for example, when planning the sequencing and stages of the work to ensure that the work of different contractors can be safely coordinated. Regular planning meetings between the principal contractor and contractors are often an effective way of ensuring this

- take all reasonable steps to ensure that any contractors appointed to the project are competent, i.e. have the necessary skills, training, knowledge and experience to carry out their work safely
- prepare a construction phase plan during the pre-construction phase, i.e. before the construction site is set up. The plan should set out the specific arrangements for securing health and safety during the construction phase, as specified in appendix 2. The principal contractor must also ensure the plan is appropriately reviewed, updated and revised, as necessary, throughout the construction phase to ensure it remains effective
- provide all contractors with copies of the parts of the construction phase plan relevant to their work before such work starts. The contractors must be promptly provided with any relevant updates or revisions to the plan if these change during the course of the project
- where high risk work is carried out (as defined in Part 1 of this guidance) ensure appropriate safe work method statements are prepared

- ensure that the necessary steps are taken to prevent access to the site by unauthorised persons. Further guidance on the appropriate measures is provided on page 35
- ensure the health risks associated with the working activities have been properly assessed and controlled. Further guidance is provided on page 44
- ensure appropriate welfare facilities, in accordance with Regulation 34, see page 45, are available and maintained throughout the duration of the project
- provide the client with a health and safety file at the completion of the project. Guidance on the information required for the health and safety file is provided in appendix 3

In the case of a **major construction project** the principal contractor must, in addition to the above:

- ensure everybody working on the project is provided with a suitable site induction, and any further information and training needed for the particular work. This does not necessarily mean the principle contractor has to provide any additional training required – this is the responsibility of individual contractors – but they must satisfy themselves that the workers have received it before allowing the work to start.

The induction should be site specific and highlight any particular risks and control measures that those working on the site need to know about. It is not intended to provide general health and safety training, but should include site-specific information about:

- the site management's commitment to health and safety
- an outline of the project
- how the site is managed
- site rules
- any site-specific health and safety risks, for example, in relation to access, transport, site contamination etc.
- security arrangements
- first-aid arrangements
- emergency procedures
- arrangements for accident and incident reporting
- arrangements for briefing workers on an on-going basis, e.g. toolbox talks
- arrangements for consulting the workforce on health and safety matters
- individuals' responsibility for health and safety

Site inductions should be provided to occasional visitors, e.g. architects or engineers, as well as full time site workers, but the induction should be proportionate to the nature of the visit. Inductions provided to escorted visitors do not need to have the level of detail that unescorted visitors require.

Records of induction training and any other health and safety training provided by the principal contractor should be kept for 3 years after the construction work or project has been completed

- ensure suitable arrangements in accordance with Regulation 17 are in place to consult and engage with the workforce on health, safety and welfare matters relating to their work to ensure that suitable measures are developed, promoted and reviewed to check they are working. The arrangements should enable individual workers, or their representatives, to raise health and safety concerns at any stage of the project for consideration by the site management. Further guidance on this issue is provided on page 30
- liaise with the health and safety project coordinator on design carried out during the construction phase

Contractor's duties (Regulation 13)

A contractor, i.e. anybody who carries out, manages or controls construction work (including the principal contractor) and the workers under their control are those at highest risk of injury and ill health. They can have significant influence in the way that the work is carried out and a key role to play, in cooperation with the principal contractor, in planning and managing the work to ensure the risks are properly controlled.

For **all construction projects** every contractor must:

- ensure the client is aware of their duties. This will usually be addressed as part of routine business, and can take the form of a standard letter provided as part of the contractual documentation. Where a contractor is engaged directly by the principal contractor rather than the client, written confirmation that the client has been made aware of their duties should be obtained from the principal contractor
- plan, manage, supervise and monitor their own work and that of others to ensure it is carried out safely and that health risks are also addressed. The amount of effort required should be proportionate to the size and complexity of the project and the nature of the risks involved. Where contractors identify unsafe practices, they must take appropriate action to ensure health and safety.

On projects involving more than one contractor, every contractor must coordinate the planning, management and monitoring of their own work with

that of the principal contractor and other contractors and, where appropriate, the designer and/or health and safety project coordinator

- in the case of high risk work (as defined) prepare safe work method statements
- take all reasonable steps to ensure that any businesses or individuals they engage are competent to carry out the work required of them. Assessments of competence (i.e. whether somebody has the necessary skills, training, knowledge and experience) should focus on the needs of the specific work being carried out and be proportionate to the risks arising from that work
- provide adequate training, covering health and safety aspects of the work as well as the necessary practical/ technical skills to all employees to ensure the work is carried out safely. An appropriate level of supervision, dependant on the risks to health and safety involved, and the skills, knowledge, training and experience of the employees concerned must also be provided.

Employees will require closer supervision if they are young, inexperienced or starting a new work activity. Other factors which should also be considered when assessing the appropriate level of supervision include the attitude and level of the individual's safety awareness, the degree of risk associated with the work and level of reliance on the individual to adopt safe working practices (e.g. use of a fall arrest system versus edge protection for work at height), physical agility etc.

- ensure there are adequate welfare facilities on the site. The standards required for welfare provision are set out in Regulation 34
- assess and control the risks to their employees' health associated with their working activities. Guidance on this issue is provided in the guidance to Regulation 34 (page 44)

For **minor construction projects** every contractor must, in addition to the above:

- ensure the client has appointed a principal contractor (unless the client is the principal contractor)
- cooperate with the principal contractor in planning and managing the work to ensure proper coordination of the work, underpinned by good communication, to ensure the risks are properly controlled. Suitable steps should also be taken to ensure all employees are aware of, and comply with, any information and instructions, including site rules and any specific directions given by the principal contractor, needed to carry out their work safely
- ensure that the details of any contractor who they appoint or engage directly to carry out work on the project are provided to the principal contractor

- provide any information required for the health and safety file. Guidance on the health and safety file is included in appendix 3
- inform the principal contractor of any difficulties in implementing or complying with any part of the construction phase plan
- inform the principal contractor of any accident, illness or dangerous occurrence at the site

In the case of a **major construction project**, every contractor must, in addition to the duties listed above, ensure that the client has appointed a health and safety project coordinator.

Where there is no principal contractor appointed, i.e. there is only one contractor involved with the project, that contractor must prepare a suitable construction phase plan before the construction site is set up and work starts. The plan should be proportionate to the size and complexity of the project and the risks involved. Guidance on preparing a construction plan is provided in appendix 2.

Duties of all construction workers (Regulation 14)

Everybody who works on a construction site (including the self-employed) must:

- only carry out work that they are trained and competent to perform
- cooperate and coordinate work with their employer, fellow workers, contractors and other duty holders to ensure the health and safety of construction workers and others who may be affected by the work. This will require effective communication between all parties to make sure everyone understands the risks associated with the work and the measures to control those risks.

The approach to achieving effective cooperation and communication should be proportionate to the size of the project and risks involved in the work. Small, straightforward projects will not require the same level of formality or time allocation as large, complex projects, but it should be clear to all parties how they will communicate and cooperate with each other to ensure health and safety, for example through daily updates, formal coordination and progress meetings etc.

- comply with the requirements of all of the Regulations applicable to the work being carried out
- carry out their work in accordance with any information, direction, instructions and training provided by the relevant contractor, including the site rules

Summary of the key roles and responsibilities of the duty holders

Duty holder	All construction projects	Additional requirements for minor projects, i.e. where 2 or more contractors are engaged	Additional requirements for major projects
Client NB where work is undertaken for 'domestic clients' these duties will pass to the designer, or if there is no designer involved, the relevant contractor	<ul style="list-style-type: none"> check the competence and resources of appointees ensure there are suitable arrangements for managing the project in place ensure sufficient time and resources are allocated to all stages of the project provide relevant pre-construction information to designers and contractors 	<ul style="list-style-type: none"> appoint, in writing, a principal contractor ensure a construction phase plan is in place before work starts 	<ul style="list-style-type: none"> appoint, in writing, a health and safety project coordinator provide relevant information to the health and safety project coordinator for the health and safety file retain and provide access to the health and safety file to persons involved in the construction project, or any future work
Health and safety project coordinator			<ul style="list-style-type: none"> advise and assist the client with their duties notify the project to the HSI coordinate health and safety aspects of the design work and cooperate with others involved in the project facilitate good communication between the client, designers and contractors liaise with the principal contractor on any ongoing aspects of the design identify, collect and pass on any relevant pre-construction information prepare and update the health and safety file
Designer	<ul style="list-style-type: none"> ensure the client is aware of their duties identify and eliminate or control foreseeable risks during design provide information about residual risks 	<ul style="list-style-type: none"> ensure a principal contractor has been appointed 	<ul style="list-style-type: none"> ensure a health and safety project coordinator has been appointed provide any information required for the health and safety file to the health and safety project coordinator
Principal contractor		<ul style="list-style-type: none"> plan, manage and monitor the work in liaison with other contractors prepare and keep up to date a relevant construction phase plan, and provide copies of the relevant parts to other contractors provide a health and safety file to the client on completion of the work 	<ul style="list-style-type: none"> ensure all construction workers have a suitable site induction and any further information or training needed for the work consult and engage with the construction workers to secure their commitment to health and safety liaise with the health and safety project coordinator regarding on-going design matters

		<p>Ensure:</p> <ul style="list-style-type: none"> the competence of all appointed contractors safe work method statements are prepared for high risk work assessments of relevant occupational health risks are prepared suitable welfare facilities are provided reasonable steps are taken to prevent unauthorised access to the site 		
Contractor	<ul style="list-style-type: none"> ensure the client is aware of their duties plan, manage and monitor their own work and that of other workers prepare safe work method statements for all high risk work check the competence of all contractors and workers engaged to carry out work provide suitable training and supervision to employees ensure health risks have been suitably assessed and controlled ensure suitable welfare facilities are available if there is no principal contractor, draw up a construction phase plan 	<ul style="list-style-type: none"> ensure a principle contractor has been appointed cooperate with the principle contractor in planning and managing the work, including site rules and reasonable directions provide the principle contractor with details of any contractor directly engaged provide any information needed for the health and safety file inform the principal contractor of any difficulties in complying with the construction phase plan inform the principal contractor of any work related accident, illness or dangerous occurrence 	<ul style="list-style-type: none"> ensure a health and safety project coordinator has been appointed 	
Workers	<ul style="list-style-type: none"> ensure they are competent to carry out the work cooperate with fellow workers and other duty holders, and coordinate work, so as to ensure the health and safety of everybody who may be affected comply with the requirements of the Regulations comply with any information, direction, instruction or training provided by, or on behalf of, the relevant contractor 			

General requirements

Requirement to control risk (Regulation 5)

Regulation 5 sets out the general principles duty holders should use in their approach to identifying the appropriate measures they should take to control the risks to health and safety in a particular construction project.

In summary they are:

- 1) to eliminate risks where possible
- 2) to evaluate those risks that cannot be eliminated; and
- 3) to put in place proportionate measures that control the risks at source

Where risks cannot be eliminated, the preventative measures taken to control them must follow the 'hierarchy of risk control', shown in the table below, i.e. consideration must be given to the headings in the order shown in the table, and only when it is not reasonably practicable to implement the higher control can consideration be given to the next one, and so on in order of priority.

Hierarchy for controlling risk	
1. Elimination	Where it is not reasonably practicable to eliminate the risk, follow the hierarchy of protective measures below.
2. Substitution	Replace the material or process with a less hazardous one. For example, use a small MEWP to access work at height instead of a ladder.
3. Isolation of the hazard from the person subject to the risk	Separate people from the hazard. For example, design for the provision of fixed barriers to protect against falls from height during maintenance of plant located on a roof. Priority should be given to measures which provide collective protection over individual protection*.
4. By engineering means	Use work equipment or other physical means to combat the risk at source. For example, ensure the design details of items to be lifted include attachment points; install or use local exhaust ventilation to control risks from dust. Priority should be given to measures which provide collective protection over individual protection*.
5. Administrative controls	Identify and implement procedures needed to work safely. For example, specify safe systems of work; reduce the time workers are exposed to a hazard by job rotation, provide training, use signage etc.
6. Personal Protective Equipment and clothing (PPE)	PPE should only be used to control any residual risks which cannot be controlled by other reasonably practicable means described above. Any PPE must be suitable for the activity and the individual, properly fitted and worn. Workers must be trained in the function and limitation of each item of PPE.

* Collective protection measures protect everybody who is at risk without requiring any action on their behalf to be effective. Individual (or personal) protective measures only protect the individual, and then only after they have taken some action in order to make the measures effective.

Responsibility to provide information (Regulation 15)

The Regulations are designed to ensure health and safety is integrated into the management of the project, and set out a framework for cooperation, coordination and communication between the various duty holders to ensure health and safety.

The precise management arrangements will depend on the nature of the project and the risks that the work will entail. However, there will always be a requirement for certain project-specific health and safety information to be prepared and shared with other people involved with the project in order to ensure the health and safety of all workers and others who may be affected by the work.

Such information may include:

- the pre-construction information
- the identification of hazards and risks associated with the project, and the measures required to control those risks
- the construction phase plan
- safe work method statements
- provision of information, instruction and training
- preparation of the health and safety file

Information will continue to be generated and provided as the project progresses so it is important that there are effective arrangements to ensure all the relevant duty holders are promptly provided with the information they need to enable them to carry out their work safely and without risk to health. Information should be precise, clear and in a format suitable for the users.

Anybody involved with the project who identifies anything that is likely to endanger either their own or others' health and safety, or which may prevent them from complying with any of the Regulations, must notify the relevant contractor and any other persons affected.

Joint responsibility (Regulation 16)

In many instances it is likely that more than one person will have the same legal responsibility on a construction project, for example making sure the client is aware of their duties. In such cases, each person will retain the responsibility for complying with that duty separately to the extent that is relevant to their working activity.

Where necessary, the parties should cooperate and coordinate with each other to ensure each of them are able to meet their own legal duties.

Consultation (Regulation 17)

The workforce has first-hand knowledge of the site conditions and can often identify potential problems or risks that arise, or may arise. The relevant contractor must ensure that suitable arrangements are in place to consult and engage with the workforce on health, safety and welfare matters relating to their work to ensure that the risks can be properly managed.

This should be a two way process and involve information being given to the workers, listening to them and taking into account what they say before decisions are made.

The arrangements should enable individual workers, or their representatives, to raise health and safety concerns at any stage of the project for consideration by the site management.

Occupational health and safety training (Regulation 20)

The relevant contractor must ensure that nobody, including a self-employed person, carries out any work on the project until they have satisfied themselves that they have received adequate health and safety training relevant to the work being undertaken. The effort required to be 'satisfied' should be proportionate to the nature of the work and the risks involved.

Records of any induction training and any other health and safety training provided by the relevant contractor should be kept for 3 years after the construction work or project has been completed.

Every person carrying out construction work has their own responsibility to ensure that they have received adequate health and safety training in order to carry out the work safely.

Escorted visitors (e.g. students, prospective house owners etc.) who are permanently accompanied by somebody with the appropriate level of health and safety training, and people making short term site visits to deliver goods etc., do not need to undergo specific health and safety training provided it can be shown, through risk assessment, that any risks to such persons can be controlled by other means.



Part 3

Specific requirements

Existing services (Regulation 21)

Before any construction work starts, the relevant contractor must take all reasonably practicable steps to ensure that all existing services are identified and managed to prevent any person on the construction site being put at risk.

This must include an assessment which sets out:

- the type and extent of service(s) present (for example electrical, gas, water, sewerage etc.)
- their location and whether they are overhead, underground or contained within a structure
- the risks they pose, for example, electric shock, fire, explosion, an inrush of water etc.

Any existing service which presents a risk to people on the site must be removed, disconnected or otherwise isolated to prevent inadvertent contact during the work.

Further detailed guidance on this matter is provided in the HSI publication 'Working safely and avoiding danger from underground and other utility apparatus'.

Electricity supply (Regulation 22)

The relevant contractor must ensure that all electrical systems and equipment on the construction site are properly designed, constructed, installed, used, maintained and tested to control the risk of electrical shock, burns, fire or explosion.

Construction sites present one of the most challenging environments to the safe use of electricity. Advance planning is needed to ensure an appropriate electrical supply is provided and installed, taking specialist advice where needed on the most suitable electrical supply. All materials, appliances and components used in the electrical system and equipment should conform to the appropriate British Standard and be adequately protected.

Effective management by the relevant contractor is necessary to ensure that all electrical systems and equipment are suitable for use and properly maintained, inspected and tested as required.

Additional guidance on the appropriate standards for managing electrical safety in construction is contained in appendix 6, HSI publication 'Guidance on Electricity at Work (Jersey) Regulations 1983' and also BS 7671 IET Wiring Regulations.

Safe place of work, access and egress (Regulation 23)

The relevant contractor must take all reasonably practicable steps to ensure that a safe working environment is provided and maintained, including safe access onto, and around, the site.

Emergency escape routes must be provided and remain available and unobstructed at all times.

The Regulations contained within Part 3 of this guidance set out specific requirements in respect of matters which help ensure the generality of Regulation 23 is complied with.

Traffic control (Regulation 24)

The relevant contractor must take all reasonably practicable steps to manage the movement of all pedestrians, site traffic and mobile plant to ensure persons are not put at risk.

The construction site should be designed and managed to minimise the risk of vehicles striking pedestrians.

The location of stores and areas for receiving goods and materials should be planned to reduce any need for delivery vehicles to travel through the site. These may need to be relocated as the site progresses.

The layout of the site should be designed to segregate vehicles from pedestrians and avoid the need for vehicles to reverse.

Wherever possible, provide separate entry and exit ways for vehicles and pedestrians, a one-way traffic system and firm level pedestrian walkways which are separated from vehicle routes.

Where vehicles and pedestrians need to share a route or working space, wherever possible, provide clearly defined walkways along the vehicle route, kept clear of obstructions and separated from the roadways by a physical barrier.

All drivers and pedestrians should be made aware of, and understand, the routes and traffic rules through the use of appropriate signs and instructions.

The risks from operating plant must also be controlled. For example:

- the area around plant that slews, such as 360° excavators and mobile cranes, must be segregated such that access into the danger areas is prevented
- any temporary structures, such as scaffolds, which might be damaged and made unsafe if struck by a vehicle must be protected
- the edges of excavations should be protected, for example, through the use of stop blocks where there is a risk of vehicles falling into the excavation

- where signallers, or a banksman, are used they must be trained and competent to undertake this role. Wherever possible, such signallers should be provided with a protected position from which they can work in safety

Protecting the public (Regulation 25)

The relevant contractor must take all reasonably practicable steps to ensure that members of the public are not exposed to risks to their health and safety as a result of the construction work being carried out.

In particular, the relevant contractor must ensure that every construction site is secure such that access by unauthorised persons, at any time, is prevented. This includes during normal working hours when work is taking place on the site and when the site is unattended, for example at night-time and weekends.

Suitable perimeters and barriers separating the public and others from the work must be provided. The precautions required to secure the site perimeter should reflect the level of risk posed by the construction work, taking into account factors such as:

- the nature and type of construction work
- how heavily populated the area is
- whether the site may attract children or other vulnerable populations
- specific site characteristics
- localised environmental conditions, such as prevailing winds

For most sites, a 2 metre high fence provides an appropriate and effective site barrier. This can be constructed from a range of materials, including metal mesh, plywood or other sheeting materials.

If a mesh fence is to be used it should be difficult to climb, e.g. use a close mesh which prevents children getting handholds or footholds. Sectional fencing should be locked together and not easily separated without using a tool from inside the site. Gaps underneath the fence or gate should be kept as small as possible to prevent access. The feet of sectional fencing should not protrude into pedestrianised areas, but where this is unavoidable they should be highlighted to avoid tripping hazards.

Fencing constructed from plywood or similar sheeting materials can be exposed to considerable wind loading, so should be designed to withstand such conditions (including the support and fixing arrangements). It can be useful to provide public vision panels, but these should also be carefully designed and constructed taking into account localised environmental conditions.

In certain areas, such as town centre sites or those in residential areas where it is foreseeable that children may attempt to gain access to the site (particularly where there is a known

history of this happening on previous sites in the near vicinity), larger hoardings and/or other deterrents such as out-of-hours security may be appropriate.

Secure gates should be provided at access points. These should form part of the fence and be of the same size. Controlling access through gates is very important – the gate must be able to be secured, whether it is open or not, to avoid it being blown open or closed in an uncontrolled manner. In some environments it may be necessary to keep the gates closed whilst work is in progress, although this must be taken into account when considering a safe means of escape in the event of an emergency.

The safety of the public outside the site perimeter must also be taken into account when planning activities such as the delivery of materials. In many instances, a banksman may be sufficient to ensure that people outside the site are not put at risk, however, for higher risk activities, such as the use of a crane, it may necessary to temporarily extend the existing site perimeter and/or provide alternative pedestrian routes. This will often need permission from, for example, the Parish or Department of Infrastructure.

The use of pedestrian tunnels, overhead protective fans etc. may also be necessary to protect the public from falling materials during work over occupied areas.

Signs must be erected on every construction site, such that they are clearly visible from outside the site, stating the name and contact number of the relevant contractor. This must include an after-hours emergency telephone number which can be used to contact the relevant contractor when the site is closed.

Excavations (Regulation 26)

When any excavation work is carried out the relevant contractor must take all practicable steps to ensure that appropriate measures are in place to prevent collapse of the sides of the excavation, collapse of any adjoining structures or inrush of water.

The risk of collapse of the sides of an excavation and the need for adequate support will depend upon the type of excavation, the nature of the ground and the ground water conditions. In most cases sheeting or proprietary support systems, or sufficient battering back of the sides of the excavation to a safe angle, will be required.

Support systems (for example trench sheets, trench boxes, timbering and props etc.) should be installed without delay as the excavation progresses, such that no person works ahead of, or outside, the supported areas. Where the sides are battered back to prevent instability, the nature of the soil will determine the minimum safe angle. In granular soils, the angle of the slope should be less than the natural angle of the repose of the material being excavated. In wet ground a considerably flatter slope will be required.

The principal contractor must ensure that if an excavation needs to be supported or battered back to control risks, the excavation and any supports must be inspected by a competent person:

- at the start of the shift, before work begins
- after any event likely to have affected its strength or stability
- after any accidental fall of rock, earth or other material

The competent person must complete a written record of the inspection, which includes the information set out in appendix 8.

If the competent person is not satisfied that work can be carried out safely, they must advise the relevant contractor and the excavation must not be used until the matters identified have been resolved. This should also be recorded on the written record of the inspection.

Precautions must also be taken to prevent people and vehicles falling into the excavation. Suitable load-bearing guard rails or barriers must be erected at the edges of the excavation, and vehicles prevented from passing close to the edge of the excavation where they may overload the sides, leading to collapse. Where vehicles have to tip materials into the excavation, properly secured stop-blocks should be used to prevent them running into the excavation. These must be placed at a sufficient distance from the edge to avoid the danger of overloading and subsequent collapse of the side.

Work at height (Regulation 27)

The relevant contractor must ensure that if work is carried out at height, suitable and sufficient measures are taken to prevent any person falling a distance liable to cause personal injury. The Regulations do not include any specific height at which certain precautions must be taken. Risk assessment should be used to decide whether precautions are needed and in what form.

This Regulation covers all work at height, including at or below ground level and the means of access to, and egress from, the place of work (other than via a staircase in a permanent workplace) where if the measures required were not taken a person could fall a distance liable to cause injury.

Deciding on the most appropriate means of controlling the risk of falls from height will depend upon a number of factors including the height at which the work is being carried out, the nature of the task, duration and frequency of the work, the condition of the surface a person is likely to fall on, the position of workers in relation to the edge (for example, whether people are working with their back to an edge) and the general working environment (including exposure to weather).

The decision making process should, however, follow the hierarchy of controls set out in Regulation 5.

The step-by-step diagram on page 39 identifies the decision making process in accordance with the hierarchy of controls.

Regulation 5 sets out a hierarchy of control measures which must be considered when identifying suitable precautions to control risk. The hierarchy of controls has to be followed systematically and only when it has been concluded that the higher level is not reasonably practicable may the next level be considered.

In the context of assessing and managing the risk of falls from height, and determining how to work at height safely, this means the relevant contractor must ensure that:

- work at height is **avoided** where possible. For example, using extendable tools which can be used from ground level, assembling components at ground level before lifting them into place etc.
- where work at height cannot be avoided, falls are **prevented** by, for example, providing edge protection to open edges or creating a safe working place using suitable work equipment, such as a scaffold or a Mobile Elevating Work Platform (MEWP) etc.
- where the risk of a fall occurring cannot be eliminated, work equipment which minimises the **distance** and **consequences** of such a fall is selected. **Collective protection measures** that protect all of those at risk, for example nets, air bags etc., should be selected before **personal protective measures** which only protect the individual, for example fall arrest systems, rope access techniques etc.

Ladders are at the bottom of the hierarchy because they do not prevent or mitigate a fall. However, they can be used for low risk, short duration work (generally considered to be work which takes less than 30 minutes) if it can be shown that it is not reasonably practicable to use a safer form of fall protection.

In practice, the expectation is that in the vast majority of cases where work is carried out above 2 metres, collective fall prevention measures will be considered reasonably practicable.

Schedules 1-7 of the Regulations set out a number of prescriptive requirements relating to work at height, including the provision of scaffolding, which are based on the hierarchy of controls above. Detailed guidance on these requirements is set out in appendix 7.



For each step, consider what is reasonably practicable and always use 'collective protection' before 'personal protection'

Fragile surfaces (Regulation 28)

The relevant contractor must ensure that where people are working at height near, or are required to pass across or near, a fragile surface, appropriate measures are taken to prevent a fall through the fragile material. Prominent warning signs, clearly identifying the presence and location of the fragile surface, must also be placed at any approach to any area where fragile surfaces are situated.

Many roof assemblies are, or can become, fragile. For example asbestos cement, fibreglass and plastic generally become more fragile with age. Steel sheets may rust, and any sheets on poorly repaired roofs might not be properly supported by the purlins. For these reasons, persons should not stand directly on any sheeted roof.

Whenever possible, all work should take place from beneath a fragile roof. If this is not possible, consideration should be given to using a Mobile Elevating Work Platform (MEWP) if the work can be carried out by the operatives from within the MEWP itself.

If access onto a fragile roof cannot be avoided, edge protection should be installed around the perimeter of the roof and staging fitted with suitable guard rails used on the roof to spread the load. Operatives should **never** try to walk along the line of the roof bolts above the purlins, or along the roof ridge. Unless all of the work and access routes are on stagings or platforms fitted with suitable guard rails, safety nets should be installed under the roof to arrest any fall.

Fragile roof lights are a particular hazard, and can be difficult to see in certain light conditions, or may be hidden by paint, dirt or through weathering. Protection from falling through fragile roof lights must be provided using either barriers or covers that are secured and labelled with a warning.

If the work involves the replacement of roof lights, nets slung close beneath the roof lights, safety decks installed beneath the roof lights or a harness attached to an appropriate work positioning line which is itself suitably anchored, should be provided in order to provide suitable protection should a fall occur.

Falling objects (Regulation 29)

The relevant contractor must ensure that suitable arrangements are in place to prevent anybody being put at risk of being struck by falling objects. This includes both people on the site and others, such as the public, walking near the site.

Appropriate steps must be taken to prevent objects falling in the first place, but if this risk cannot be eliminated, any persons who are at risk, whether site personnel or the public, should be protected from being struck by falling materials by, for example, the use of toe-boards, brick guards and/or netting. Fans and/or covered walkways may be required where risks are particularly high.

The accumulation of loose materials on scaffold platforms or other working areas from where they could fall should not be permitted unless they can be suitably secured. Debris should be

regularly removed to prevent it from being dislodged, as in the case of environmental factors such as high winds.

Materials should not be stacked on scaffolds or close to open edges where they could fall, unless absolutely necessary. If unavoidable, the materials should not be stacked above the height of the toe-board unless brick guards or other suitable measures are provided to prevent them from falling.

Enclosed debris chutes should ideally be used when transferring materials to a waste skip, with the skip covered to prevent debris from being ejected and to help reduce dust levels. If a chute cannot be provided, materials and debris must be carefully lowered in an appropriate manner, for example by using containers. Items such as slates, roof tiles, scaffold components etc. should never be thrown down from height.

Hoists (Regulation 30)

The relevant contractor must ensure, so far as is reasonably practicable, that any hoist provided for the movement of workers or materials is safe for use. In particular hoists must be:

- properly constructed of sound materials and capable of lifting the required loads
- fitted with efficient devices which will support the hoist platform together with its safe working load in the event of the hoisting system failing
- fitted with efficient automatic devices to ensure the carrier cannot overrun the intended highest point of travel
- erected by trained and experienced people following the manufacturer's instructions
- clearly marked to show its intended purpose, i.e. for equipment and materials only or for passengers, in addition to goods. A safe working load notice must be clearly displayed and, if used only for the movement of equipment and materials, the sign must make it clear that persons are prohibited from travelling on the hoist
- operated only by trained and competent people and only used for its intended purpose
- capable of being operated from only one position
- thoroughly examined and tested by a competent person after erection, substantial alteration or repair. A written record of the examination, containing the information required by Regulation 31, must be completed by the competent person
- thoroughly examined by a competent person at least once every 6 months whilst it continues to be used. A written record of each examination, containing the information required by Regulation 31, must be completed by the competent person

In addition, to prevent people falling down the hoist way or being struck or trapped:

- the hoist way must be enclosed to prevent people being struck by moving parts of the hoist installation, e.g. at window openings or working platforms, or by materials being carried on the hoist
- the hoist and every hoist enclosure must be constructed in such a way as to prevent any passenger or materials carried in the hoist being trapped between any part of the hoist and any fixed structure, or between the counterbalance weight and any other moving part of the hoist
- the hoist must be provided with inter-locked gates at all landings (including ground level) which cannot be opened except when the hoist is at a landing and the hoist platform cannot be moved away from the landing until the gate is closed. All such gates must not obstruct the movement of the hoist
- the hoist must be installed such that the gap between the edge of the hoist platform and each landing is as small as practicable

Hoists which are designed and used for carrying people (whether or not with materials) must:

- have efficient devices to prevent the hoist platform from overrunning
- have an inter-locked gate fitted on each side of the hoist platform which provides access to a landing, such that the hoist platform cannot be raised or lowered until the gate is closed, and the platform comes to rest if the gate is opened
- have at least 2 ropes or chains separately connected to the hoist platform, each capable of carrying the whole load of the hoist platform together with its maximum working load, if the hoist platform is suspended by rope or chain
- have efficient automatic devices fitted which will ensure the hoist platform cannot travel below the lowest intended point of travel

Information in records of inspection (Regulation 31)

Records of inspection required under Regulations 26, 27 and 30 must include the following information:

- the name and address of the relevant contractor of the relevant construction work
- the address of the construction site
- a description of the relevant construction work
- the date and time of the inspection
- details of any risk that was identified
- any action taken to control that risk
- the name and address of the competent person who carried out the inspection

An inspection record template which can be used to record the inspections undertaken in accordance with Regulations 26, 27 and 30 is contained in appendix 8. It is not compulsory to use this template, other formats can be used providing all of the information set out above is included.

Housekeeping (Regulation 32)

The relevant contractor must take all reasonably practicable steps to ensure the construction site is kept orderly and tidy by actively managing housekeeping. In particular:

- walkways and stairways must be kept free of tripping hazards such as trailing cables, building materials and waste
- all access ways and floor areas should be kept clear of debris and materials and maintained in a suitable condition to reduce the risk of slipping. Where necessary, anti-slip surfacing may need to be provided
- designated storage areas for plant, materials, waste etc. should be provided. All storage areas should be kept tidy, and a safe system of work for the retrieval of materials implemented
- the waste stream should be planned and managed to ensure waste materials can be stored and removed from site in a timely and efficient manner. The positioning of waste containers, and skips in particular, must be carefully considered to ensure they can be delivered, accessed and removed safely
- all plant should be suitably secured when not in use to prevent inadvertent operation
- general safety signs, as appropriate, should be erected. These may relate to site specific hazards, emergency evacuation, fire safety etc.

Lighting (Regulation 33)

The relevant contractor must ensure, so far as is reasonably practicable, that adequate lighting is provided to every part of the site so that people can do their work and move about the site safely.

Where natural light is inadequate or work will continue outside daylight hours, artificial lighting must be provided. Shadow areas, particularly stairwells, may need extra lighting.

Where failure of the primary artificial lighting would present a high risk to the health or safety of anyone, for example somebody working on a tower scaffold in a basement, a source of emergency lighting should be provided. Depending on the level of risk, this could range from an automatic emergency lighting system, to torches or other similar lights which would provide suitable illumination. The most appropriate means of emergency lighting should be determined by risk assessment.

All emergency routes should be kept well-lit whilst workers are on site. Where emergency routes need artificial light to be used safely, emergency lighting which comes on if the primary lighting fails should be provided. Such emergency lighting does not have to provide the same level of lighting as under normal circumstances; merely enough to enable escape.

Occupational health and welfare (Regulation 34)

Occupational health

All necessary steps must be taken by all parties involved with a construction project to assess and control the relevant health risks associated with their working activities. The nature and extent of the duty will depend on the role(s) held; for example, the

Client – must take reasonable steps to ensure suitable arrangements are in place for managing health risks during construction, including the provision of adequate welfare facilities

Designer – must identify and eliminate health hazards where possible, and reduce or control any residual risks through design, for example by specifying lightweight blocks to reduce the risk of musculoskeletal disorders

Health and safety project coordinator – must monitor and coordinate occupational health risks in the pre-construction phase

Principal contractor – must plan, manage, monitor and coordinate occupational health risks in the construction phase

Contractor – must plan, manage and monitor occupational health risks workers may be exposed to

Worker – must ensure they take care of their own health and cooperate with others on health issues

Whilst not exhaustive, the main health risks in construction include:

- musculoskeletal disorders, for example, back and other muscle and joint injuries from handling and lifting loads
- hand-arm vibration syndrome due to the use of vibrating tools
- dermatitis from exposure to hazardous substances such as cement based products, solvents etc.
- noise-induced hearing loss caused by exposure to high levels of noise from, for example, power tools, operation of plant etc.
- asbestos-related diseases due to inhalation of airborne asbestos fibre following disturbance of an asbestos-containing material
- other respiratory diseases due to exposure to hazardous construction dusts

When assessing the risks from any hazards to health posed by the construction activities, consideration must be given to the principles of risk reduction set out in Regulation 5 when selecting the control measures which will be adopted.

The hierarchy of controls has to be followed systematically and only when it has been concluded that the higher level is not reasonably practicable may the next level be considered. In the context of assessing and managing the risks to health this means:

- the risks are eliminated or minimised where possible. For example, by selection of less hazardous substances, using different systems of work etc.
- where risks cannot be eliminated, they are controlled by other means, for example, selecting the most appropriate tools, job rotation, providing the appropriate personal protective equipment (PPE) including respiratory protective equipment (RPE), providing adequate training etc.

The greater the risk, the better the controls will need to be. Use of PPE is at the bottom of the hierarchy and should only be relied on as the sole means of control when it has been demonstrated that it is not reasonably practicable to reduce or control the risks in some other way.

Further guidance on occupational health matters is provided in specific information sheets published by the Health and Safety Inspectorate.

Welfare

The relevant contractor must ensure that everyone who works on the construction site has access to adequate welfare facilities, including adequate toilet and washing facilities with hot and cold running water, drinking water, a rest room/ area to sit, make drinks and eat food, and somewhere to change, dry and store clothing and personal protective equipment.

Employers also have a responsibility for ensuring the welfare facilities are adequate for their employees working on the site.

The availability of welfare facilities, their location on site and regular maintenance must be considered and planned for before construction work starts.

The precise type and nature of welfare facilities required will depend on factors such as:

- the nature of the work to be carried out and the health risks associated with it; for example, work with contaminated land or very dirty work such as sewer maintenance will usually require the provision of showers
- the distance workers will have to travel to the welfare facilities
- the duration of the work
- whether the project is confined to a single site or spread across a number of different locations, e.g. road repairs, cable laying etc.
- the number of people who will use them

Welfare facilities should be easily available to people working on the site and in almost all cases, be provided on the site itself.

Toilets

So far as is reasonably practicable, flushing toilets and hot and cold running water for hand washing, connected to mains water and drainage systems, should be provided. Where this is not possible, toilets with a built-in water supply and drainage tanks should be used. Portable chemical toilets are a last resort, and are only acceptable where it is not reasonably practicable to provide more suitable facilities.

The number of toilets required will depend on the number of people on site and the type of facilities provided. Where portable toilets are provided, a ratio of 1 toilet to 7 persons is recommended if the portable toilets are emptied once a week. Men and women may use the same toilet if it is in a lockable room and partitioned from any urinals, otherwise separate toilets should be provided. Adequate supplies of toilet paper should always be available.

All toilets must be adequately ventilated, lit and maintained in a clean condition. The frequency of cleaning will depend on usage – basic daily cleaning may not always be sufficient.

Washing facilities

Washing facilities should be provided next to the toilets. These should include:

- a supply of clean hot and cold running water. If mains water is not available, water supplied from a tank may be used
- soap or other suitable means of cleansing
- towels or other suitable means of drying

Rest areas

Rest facilities should provide shelter from wind and rain and shade from direct sunlight. They should have adequate numbers of tables and chairs and be adequately heated. There must also be a readily available supply of drinking water for all workers.

Provision for making hot drinks and heating up food should be provided whenever reasonably practicable.

Transient construction sites

Where the construction work is short duration (e.g. less than a week) or carried out while moving over a continuous geographical area (e.g. cable laying projects) arrangements still need to be made for welfare facilities.

In the case of short duration work it may be appropriate to make arrangements to use facilities provided by the owner of the premises in which the work is being carried out, local public facilities or the facilities of local businesses. In all cases, a clear written agreement should be

made with the provider of the facilities. Checks should be made to ensure that the facilities will be readily accessible, open at all relevant times and meet the minimum standards in respect of cleanliness and hand washing provision.

Construction work of a longer duration carried out while moving over a continuous geographical area, such as major roadworks or cable-laying projects, still requires access to suitable welfare facilities to be provided. In many cases this is likely to be a towable self-contained toilet.

Emergency procedures (Regulation 35)

The relevant contractor must ensure that adequate emergency procedures are planned for, and in place, before construction work starts. These may involve emergency evacuation of the site, or part of the site, or involve the rescue of an injured person.

Sufficient arrangements must be in place to ensure safe and rapid emergency evacuation of the site in the event of fire, flooding or other dangerous situation. An effective means of raising the alarm, taking into account the characteristics and size of the site, must be available.

Everyone working on the site must know what signal will be given in the event of an emergency and understand what they must do. Emergency routes and exits must be kept clear, be adequately signed and adequately lit at all times when the site is live. Adequate access to the site for the emergency services should be maintained.

Adequate arrangements for recovering injured people should be considered and planned for, particularly where this may require specialist training or access equipment. For example, rescue from a tower crane, or somebody injured in a fall within a confined space or restricted plant room.

Where necessary, regular and realistic practice in the emergency procedures should be carried out. This will depend on an assessment of the risks associated with the construction work or activity, taking into account factors such as the complexities and potential difficulties in people being able to evacuate quickly and efficiently and the consequences of any delays etc.

First-aid and medical attention (Regulation 36)

The relevant contractor must ensure there is adequate and appropriate equipment, facilities and personnel to enable first-aid to be given in the event of somebody being injured or becoming ill at work. This should be sufficient to provide initial treatment of any foreseeable injuries and illness that may arise from the construction activities being undertaken on the project.

As a minimum, the following should be provided on all construction projects:

- a first-aid box, the contents of which should be sufficient and appropriate for the foreseeable nature of injuries and illness which may occur on the site, and the number of workers involved
- a nominated person, to take charge of the first-aid arrangements and manage the initial response to any injury or episode of ill health; for example, calling the emergency services
- information telling workers the name of the nominated person(s) and, if relevant, any qualified first aiders and where to find them. A notice in the site office and/or rest areas is usually the best way of doing this.

A qualified **first aider** is someone who has undergone a specific training course in administering first-aid. Such training should be relevant to the hazards and risks associated with the construction work.

The number of nominated persons and qualified first aiders needed on a construction project should be determined by risk assessment.



Part 4

Appendix 1

Notification

All major construction projects, i.e. those which will last more than 30 working days or involve more than 500 person days, must be notified to the Health and Safety Inspectorate by the health and safety project coordinator (HSPC), as soon as practicable after the HSPC's appointment.

Every day, or part day, that construction work is likely to take place (including weekends and bank holidays) counts towards the period of construction work.

Details of the information which is required to be notified is set out below:

- (a) the date of forwarding the notice;
- (b) the address of the construction site or precise description of its location;
- (c) a brief description of the project and the construction work that it entails;
- (d) the name, address, telephone number and email address of the client;
- (e) the name, address, telephone number and email address of the health and safety project coordinator;
- (f) the name, address, telephone number and email address of the principal contractor;
- (g) the date planned for the start of the construction phase;
- (h) the time allowed by the client to the principal contractor for planning and preparation for construction work;
- (i) the planned duration of the construction phase;
- (j) the estimated maximum number of persons engaged to undertake construction work on the construction site;
- (k) the planned number of contractors on the construction site;
- (l) the name and address of any contractor already appointed;
- (m) the name and address of any designer already engaged; and
- (n) a declaration signed by or on behalf of the client that the client is aware of the client's duties under these Regulations.

Notification should be made using the electronic on-line notification form via www.gov.je/hsi

Any modifications or updates to a notification should be submitted, making it clear that they relate to an earlier notification. If a construction project is not notifiable when it starts, but there are subsequent changes to its scope so that it fits the criteria for notification, the HSPC must notify the Health and Safety Inspectorate as soon as possible.

An up to date copy of the notification must be clearly displayed on the construction site in a place where it is readily accessible to anyone working on the site and in a form that can be easily understood.

Appendix 2

Construction phase plan

This appendix gives guidance on the requirements for the construction phase plan required under Regulation 18.

A construction phase plan is a document that must record the:

- 1) health and safety arrangements for the construction phase
- 2) site rules; and
- 3) where relevant, specific measures concerning high risk work

It must be prepared by the relevant contractor before any construction work starts, and be appropriately reviewed, updated and revised, as necessary, throughout the construction phase to ensure it remains effective.

The plan must record the arrangements for managing the significant health and safety risks associated with the construction phase of a project. It is the basis for communicating these arrangements to all those involved in the construction phase, so it should be easy to understand and as simple as possible.

In considering what information should be included, the emphasis is that it is relevant to the specific project; has sufficient detail to clearly set out the arrangements, site rules and special measures needed to manage the construction phase; but in a manner which is proportionate to the scale and complexity of the project and the risks involved.

So far as is reasonably practicable, the plan should include the following:

- an overview of the project, including key dates (for example, start and finish dates, when services will be disconnected/ connected, build stages etc.) and details of key members of the project team having specific responsibilities for health and safety, including their names, positions and responsibilities. This will include the client, HSPC, designer and principal contractor
- arrangements for ensuring adequate health and safety training for all those involved with the project, including induction and on-site training
- arrangements to ensure cooperation between project team members and coordination of their work, e.g. regular site meetings
- arrangements for the reporting, management and investigation of accidents and incidents, including identification and contact details for those holding specific responsibilities in respect of these matters
- the site rules, and the arrangements for ensuring these are brought to the attention of all relevant people, including employees, contractors, suppliers or other visitors to the site

- arrangements to ensure the appropriate preparation and review of risk assessments and written systems of work
- arrangements to ensure safe work method statements are in place for all high risk work (as defined)

The relevant contractor must ensure that a copy of the plan is available for inspection by anybody working on, or due to work on, the site. The relevant contractor must also give anybody engaged to work on the site a copy of all parts of the construction phase plan which are relevant to their work, including any updates and revisions which may be prepared as the project progresses.

Appendix 3

Health and safety file

This appendix gives guidance on the preparation, provision and retention of a health and safety file, which is required to be prepared by the health and safety project coordinator under Regulation 8(g) and by the principal contractor on minor projects.

The health and safety file should contain information about the project likely to be needed to ensure any subsequent work on the building or structure, such as maintenance, cleaning, alterations, refurbishment or demolition can be carried out safely.

The file should include the following types of information where they are relevant to the health and safety of any future construction work:

- a brief description of the work carried out
- any residual hazards that have not been eliminated through the design or construction process and which therefore remain, and how they have been dealt with (for example, asbestos surveys, contaminated land etc.)
- key structural principles; for example, bracing, sources of substantial stored energy (including pre or post tensioned members), safe working loads for floors and roofs
- hazardous materials used or left in-situ; for example, lead paints, special coatings etc. which could present a risk during future maintenance or demolition work
- information regarding the removal or dismantling of installed plant and equipment; for example, any special arrangements for lifting such equipment, a specific sequence or other special instructions for dismantling
- information regarding the safe demolition of the structure; for example, a specific sequence which must be followed
- health and safety information about equipment provided for cleaning or maintaining the structure
- the nature, location and markings of significant services, including underground cables, gas supply, fire-fighting services etc.
- information and as-built drawings of the structure, its plant and equipment, for example, the means of safe access to and from the service voids, fire doors etc.

The file does **not** need to include things which will be of no help when planning future construction work; for example, the pre-construction information, construction phase plan, details about the normal operation of the completed structure, contractual documents, safe work method statements etc.

The file should be kept up to date and retained by the client as long as it is relevant – usually the lifetime of the structure. It may be kept electronically, on paper or some other durable form. If the client disposes of their interest in the building, they must give the file (or a copy) to the new owner.

Appendix 4

Pre-construction information

This appendix gives guidance on the requirements for pre-construction information (PCI).

Pre-construction information provides the health and safety information needed by those bidding for or planning work, and for the development of the construction phase plan. Some of the information may also be relevant to the preparation of the health and safety file. The level of detail in the information should be proportionate to the risks involved in the project.

PCI is defined as information about the project that is already in the client's possession or which is reasonably obtainable. The information must:

- be relevant to the specific project
- have an appropriate level of detail; and
- be proportionate to the risks involved

PCI should be gathered and added to as the design process progresses and reflect new information about the health and safety risks and how they should be managed.

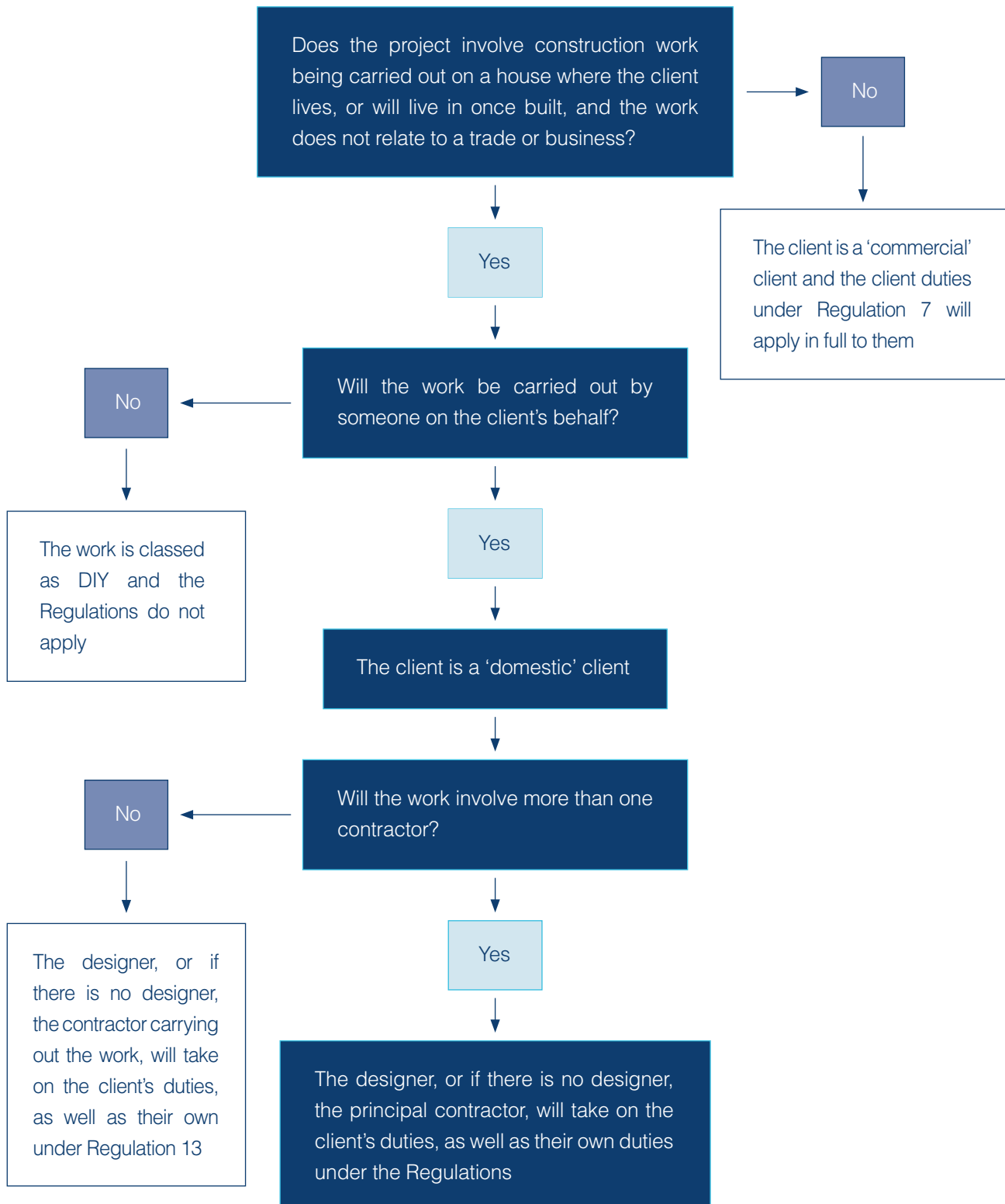
The PCI should include proportionate information about:

- the project
 - the client brief
 - key dates of the construction phase, including start and finish dates
 - details of the client, designers and, as soon as appointed, the health and safety project coordinator
- management requirements
 - the planning and management of the project such as the resources and time being allocated to each stage of the project, and the arrangements to ensure there is cooperation between duty holders and the work is coordinated
 - the health and safety hazards of the site and how they will be addressed. This may include any surveys or assessments carried out; for example, asbestos surveys, contaminated land surveys, specific ground conditions, structural diagrams, location of existing services etc., a health and safety file produced as a result of earlier construction work
- significant design and construction hazards and how these will be addressed
 - significant design assumptions and suggested work methods, sequences or other control measures
 - materials requiring particular precautions

The PCI should be in a convenient form and be clear, concise and easily understandable to help all duty holders involved in the project to carry out their duties.

Appendix 5

Application of the Regulations to domestic clients



Appendix 6

Managing electrical safety in construction

This appendix provides additional guidance on the requirements relating to electrical safety for construction projects and during construction work set out in Regulation 22.

It is important to note that all work with, on or near electricity, including that associated with construction work, is also subject to the Electricity at Work (Jersey) Regulations 1983. Guidance on these Regulations is available in the Health and Safety Inspectorate publication 'Guidance on Electricity at Work (Jersey) Regulations 1983'.

In respect of the electrical supply on any construction site, the relevant contractor must ensure, so far as is reasonably practicable, that those electrical systems and equipment are designed, constructed, installed, protected, used, maintained and tested to control the risk of electrical shock, burns, fire or explosion.

Planning the work

When planning the construction phase, the site electrical requirements must be considered. The following list, whilst not exhaustive, provides an indication of the factors to be taken into account at the planning and design stage:

- environmental considerations, for example, the significantly increased likelihood of wet weather during winter, ground conditions such as waterlogging, which increases the risk of serious injury from electric shock etc.
- the supply voltages to be used for offices, plant, equipment etc.
- the supply to and siting of heavy duty equipment, e.g. tower cranes
- use of existing permanent systems as a supply for plant and equipment
- the need to use generators to provide all or part of the site supply
- earthing requirements or earthing system to be used
- the installation and commissioning of the temporary site distribution system, in particular the siting and protection of metering equipment and switchgear, distribution boards and supply cables
- operation of the temporary site distribution system, for example, the identification of who will control, operate, and maintain the electrical distribution systems to ensure it is safe
- the way in which the system will be modified or extended as the work progresses
- use of plant and equipment connected to the distribution system, for example,

consideration as to who will use the plant and equipment, how such use will be controlled and who will be responsible for plant and equipment maintenance

- the need to ensure any electrical supply required for a demolition process is independent of any existing electrical installations in the structure being demolished
- the need to ensure any parts of a live electrical system are identified and managed in the case of refurbishment work
- the need to programme and control the work to ensure that parts of a new permanent electrical system are not commissioned until all work on the installation has been completed

Advice should be sought from a competent electrical engineer to ensure the most appropriate electrical installation is provided to the construction site.

Early contact should be made with Jersey Electricity plc (JE) during the planning stages with regard to the nature of the works, the duration and likely start date for the work. Enquiries should also be made as to the location and condition of existing electrical installations on site, including overhead lines and underground cables. Further specific guidance on this issue is available in the Health and Safety Inspectorate publication 'Working safely and avoiding danger from underground services and other utility apparatus' (commonly referred to as the 'yellow booklet').

The supply voltage

It is essential that the electricity power supply requirements are established before any work takes place, and the necessary arrangements made with JE for the supply system to be installed.

The general principles of controlling the risks associated with electricity during construction must comply with the general principles of risk reduction set out in Regulation 5. Where possible, avoid the risks altogether, for example, by changing the design, equipment or work method. Where this is not reasonably practicable, the remaining risks must be assessed and reduced to an acceptable level, with priority being given to selecting controls which protect all workers rather than a number of individuals. For example, the supply voltage of the site distribution system should be the lowest necessary to enable the work to be carried out. This combats the risk at source and helps ensure the protection of all workers on site.

Air powered tools, cordless tools or tools which operate from a reduced low voltage system, which is centre-tapped to earth (110V CTE) so that the maximum voltage to earth should not exceed 55V, will effectively eliminate the risk of death and greatly reduce injury in the event of an electrical accident. For other purposes such as lighting, particularly in confined and wet locations, still lower voltages can be used and are even safer.

Where mains voltage (230V) is used to supply site offices and welfare facilities, the system should be protected with a non-adjustable residual current device (RCD) with a rated tripping current of 30 mA. RCDs must be properly installed and enclosed; treated with care; kept free of moisture and dirt and protected against vibration and mechanical damage. They must also be:

- checked daily by operating the test button
- inspected weekly, together with the equipment it is supplying, during the formal visual inspection
- tested every three months by an electrician using appropriate electrical test equipment

If, having considered the hierarchy of risk control, a mains voltage (230V) supply is selected for portable tools and equipment, additional precautions must be provided to reduce the risk to an acceptable level. Precautions include:

- fitting RCDs. RCDs, however, cannot give the assurance of safety that cordless equipment or a reduced low-voltage (such as 110V) system provides as they detect some, but not all, faults in the electrical system
- selecting tools that are designed for trade or work use. Double insulated equipment is strongly recommended
- regular maintenance checks should be made of all electrical equipment; 230V equipment should be visually checked for damage every shift, have a visual inspection every week, and have a combined inspection and test before first use on a site and then every month - ideally records of these checks should be kept
- reducing the risk of flexible supply leads being damaged by positioning them where they are less likely to be damaged, e.g. running them along the ceiling; protecting them inside impact resistant conduit or using special abrasion-resistant or armoured flexible supply leads

Guidance on requirements for low voltage (i.e. 400 and/or 230 volt ac systems) can be found in BS 7671 Requirements for electrical installations.

Generators

The requested supply may not always be available from JE and so it may be necessary to temporarily supply electrical equipment or electrical installations with a generator.

There is a difference between generators used for short periods, for example, for up to one day and those used for longer time scales. The main consideration when using generators temporarily is how the temporary system will be earthed. From this perspective, there are two classes of temporary generators:

- portable generators (with an electrical output rating of up to 10 kVA, used for small scale work for short term use, i.e. less than one day); and
- mobile generators (which can have an electrical output rating of in excess of 10 kVA and are used for longer periods)

Care must be taken to ensure that the generator and the cables connected to it are used and installed safely and specialist advice may be needed, particularly with regard to earthing. It is extremely important to ensure that all equipment is inspected before each use.

It is important to emphasise that generators must be used in accordance with the manufacturers' instructions. Where generators are hired from plant-hire companies, it is the responsibility of the plant-hire company to provide the hirer with information regarding the safe use of their equipment. Under no circumstances should hirers attempt to change the internal electrical connections of hired equipment.

Earthing of the site supply

Appropriate electrical protection should be provided for all circuits; in practice, this often depends upon the existence of effective earthing. The responsibility for ensuring that the electrical earthing is effective rests with the relevant contractor, not JE.

There are several methods of providing a secure and effective earth. On a construction site, a system that uses earth electrodes is most commonly used and will ensure that fuses, etc. operate if there is a fault. Where necessary, specialist advice should be sought to ensure that there is adequate electrical protection.

Fixed cable armouring and metal conduit can be used as a protective (earthing) conductor. Flexible metallic conduit should not be used as the only earthing conductor; it needs to be bonded and a separate protective (earth) conductor will be necessary.

Earthing equipment connected to the supply

Equipment that is either double insulated or all insulated, does not need, and will not be fitted with a means of connection to earth.

If extension leads are used, it is strongly recommended that these are always of three core construction having a separate protective (earth) conductor. This will ensure that the supply to tools which are not double insulated always includes an earth.

The temporary site distribution system

Although the site distribution system may be only temporary, the harsh conditions on site require that it is to a high standard. All materials, appliances and components should conform

to the appropriate British Standard. Equipment must be adequately protected against damage and contamination. Switchgear and metering equipment should be provided with secure accommodation, and protected from adverse environmental conditions. It should preferably be on the periphery of the site to minimise the risk of damage to the equipment, but easily accessible in the case of an emergency but not likely to be obstructed as construction progresses.

The use of correctly rated fuses and/or circuit breakers is essential for all the supplies on site.

Makeshift arrangements, such as unprotected wiring, taped and twisted cable joints, are often dangerous and should not be permitted. All wiring on site should be installed to appropriate standards.

Such systems should only be installed or altered by people with the necessary knowledge and experience of the use of such systems. All other site installations which are not designed as plug-in systems need to be installed by a competent electrician. After installation, tests should be carried out to verify that the system is safe.

Distribution cables should be located where they are not likely to be damaged by site activities. They should be kept clear of passageways, ladders and other services. If they need to cross a site roadway or walkway they can be put into ducts with a marker at each end of the duct. If the roadway is used by vehicles the duct should be at least 0.5m below the surface. A record of the location of any underground cables, using maps or plans showing the line and depth of such cables, will be invaluable in avoiding damage as the work progresses.

All fixed distribution cables which carry 400V or 230V on a construction site are recommended to be of a type which has metal sheath and/or armour which is continuous and effectively earthed. The metal sheath and/or armour should be protected against corrosion.

Site offices and fixed floodlighting will generally require 230V supplies. Installations within site offices and other buildings should be to a suitable standard, (see BS 7671 Requirements for electrical installations). The equipment selected and installed should be suitable for the environment in which it is used.

It is strongly recommended that, on larger sites, any existing or new permanent, fixed supply is not used to supply contractors' equipment during the construction work. This will minimise unauthorised interference with the permanent fixed installation.

Further guidance is available in BS 7375 Distribution of electricity on construction and demolition sites – Code of Practice.

Maintaining the electrical installation

Temporary site distribution systems, new permanent installations and extensions or alterations to an existing system should be inspected and tested on completion. Electrical distribution systems on construction sites should be inspected and retested every three months or more

often as experience dictates. This applies to the temporary, fixed installation and to any pre-existing or new permanently fixed installation which may be used for the construction activities. On many sites it is often found necessary to inspect the installation much more frequently. Installations in site offices experience more harsh conditions than office installations in a non-construction environment. They should be tested regularly - a period of no more than 12 months is recommended, as well as each time the office is moved.

A record of the inspections and tests should be issued by the person conducting them. It is recommended that copies of these records are kept on site.

Routine inspection and testing of the installation and the repair of defects should normally be carried out by electricians other than those doing the construction work. This is because the pressures that are often placed upon site workers to meet installation deadlines may be such that the routine inspection, testing and repair is not given its proper priority.

Maintaining electrical equipment

All electrical equipment on site should be inspected and, as necessary, tested. The Health and Safety Inspectorate publication 'Guidance on Electricity at Work (Jersey) Regulations 1983' and information sheet 'Maintaining portable electrical equipment' provide further specific guidance.

It is important that electrical equipment is regularly serviced in line with the manufacturer's instructions. If tools and equipment are hired, the maintenance will normally be carried out by the owner of the equipment. In such cases arrangements should be made to return the equipment, or make it available for maintenance, in line with the owner's schedule.

Safe working practices

Any work on an electrical installation is subject to the Electricity at Work (Jersey) Regulations 1983. Further detailed guidance is available in the Health and Safety Inspectorate publication 'Guidance on Electricity at Work (Jersey) Regulations 1983'.

Appendix 7

Work at height

This appendix sets out additional guidance on the requirements of Regulation 27, in accordance with the general principles of risk reduction and prescriptive requirements set out in Schedules 1-7 of the Regulations.

The general principles of controlling the risk of falls from height must be to:

- **avoid** work at height
- **prevent** falls where work at height cannot be avoided
- **minimise** the **distance** and **consequences** of a fall where the risk of a fall occurring cannot be avoided

When selecting protective measures, 'collective' protection measures, i.e. those that protect everybody who is at risk without requiring any action on their behalf to be effective, such as the provision of scaffolding, use of MEWPs etc., should always be selected above 'individual' (or personal) protective measures, which only protect the individual, and then only after they have taken some action in order to make the measures effective. Examples of individual protective measures include fall arrest equipment, industrial rope access etc.

Prevention of falls

Schedules 1-4 of the Regulations set out specific requirements relating to measures intended to prevent falls from height. There is a wide variety of work equipment available which can provide collective fall protection including independent scaffolding, MEWPs, mast climbing work platforms, tower scaffolds, trestles etc. All such equipment and working platforms must be:

- stable and capable of supporting the weight of the workers and any materials or equipment used
- large enough to allow people to pass safely, as required, and use any equipment or material necessary for their work
- be fitted with guard rails, barriers or other similar collective means of protection to prevent a fall, and toe-boards or similar protection to prevent materials from falling either from the edge of the platform or through gaps in the platform itself
- designed in such a way as to minimise the risk of any person being caught between the equipment and an adjacent structure, and where it has moving parts, be fitted with appropriate devices to prevent inadvertent movement whilst in use
- free of openings and traps which could be trip hazards
- well maintained and kept clean and tidy to minimise the risk of slips

Guard rails, toe boards, barriers etc.

Guard rails, toe boards and other similar barriers must be provided to prevent falls whenever practicable. They must:

- be strong and rigid enough to prevent people falling and be able to withstand other loads likely to be placed on them
- be fixed to a structure or part of a structure capable of supporting them, or be secured in place by other effective means
- include
 - a main guard rail or other similar means of protection at least 950mm above the edge from which a person could fall
 - a toe board or brick guard where there is a risk of a person, objects or materials falling from the edge
 - a sufficient number of intermediate guard rails or similar means of protection positioned so that any unprotected gap does not exceed 470mm

Guard rails and toe boards can be removed if essential for the access of persons, to aid movement of materials or to carry out a specific task. However, such removal of any means of protection must be limited to the extent necessary to carry out the task and be replaced as soon as possible.

Where protection is removed to carry out a specific task, alternative protective measures must be taken to ensure the equivalent safety for persons who may be affected.

Working platforms

A working platform is virtually any surface from which work is carried out, and can include a scaffold, tower scaffold, trestle, MEWP, roof etc.

Any working platform, including its means of support, must be:

- stable during erection, use, alteration or dismantling and suitably secured in place whilst in use
- capable of withstanding the loadings imposed by the workers and any materials they are likely to use or store on it
- appropriate for its intended use

If the supporting structure for the working platform is a wheeled structure, for example a tower scaffold fitted with castors, appropriate devices must be fitted and used in order to prevent inadvertent movement during use.

A working platform must be:

- wide enough to allow people to pass back and forth safely and use any equipment or materials necessary for their work at that place
- provided with suitable edge protection, such as guard rails and toe boards, to prevent people or material and objects from falling
- kept clear of loose materials
- constructed in such a way as to prevent any material or object from falling through gaps or holes and causing injury to people below
- free from openings and traps which could present a tripping hazard
- free from slipping hazards

Additional requirements for scaffolding

Scaffold design

Unless a scaffold is assembled to a generally recognised standard configuration, e.g. NASC Technical Guidance TG20 for tube and fitting scaffolds or similar guidance from manufacturers of system scaffolds, the scaffold should be designed and proven by bespoke calculation, by a competent person, to ensure it will have adequate strength, rigidity and stability whilst it is erected, used and dismantled. The design should extend to ensure that safe erection and dismantling techniques can be adopted throughout the duration of the works.

Scaffolding plan

Prior to the erection of any scaffold, a plan setting out how the scaffold will be safely erected, used and dismantled must be drawn up by a competent person. It is acceptable for a generic plan to be used providing it is supplemented with specific details relevant to the particular scaffold in question.

A copy of the plan, including any specific instructions, must be available to all those involved in the erection, use, dismantling or alteration of the scaffold until the scaffolding has been completely dismantled.

Scaffolding working platforms

The dimensions, form and lay-out of the working platforms should be appropriate for their intended use, suitable for the anticipated loadings and allow safe passage of persons and materials.

Incomplete scaffolding

Whenever scaffolding is not available for use, including during erection, alteration or dismantling, suitable warning signs must be erected, and physical means taken to prevent access to any part which could be dangerous.

Competence and supervision of scaffolding operatives

All scaffolding must be erected, significantly altered and dismantled under the supervision of a competent person.

All scaffolding operatives must be competent for the type of scaffolding work they are undertaking and should have received the appropriate training, including refresher training, relevant to the type and complexity of the scaffolding they are working on.

The training must specifically address:

- how to interpret, understand and follow the scaffolding plan
- the safe assembly, dismantling or alteration of the scaffolding
- the precautions required to prevent the risk of persons, materials or objects falling
- the potential effects of adverse weather on the scaffolding and its safety
- permissible loadings; and
- any other specific risks that assembly, dismantling or alteration of the scaffolding may entail

The minimum standard of training required to demonstrate general competence is that required by the Construction Industry Scaffolders' Records Scheme (CISRS) or equivalent.

Inspection and examination of scaffolds

Every scaffold from which a person could fall 2 metres or more must be thoroughly examined by a competent person before it is brought into use, and after any substantial alteration or extension. This thorough examination will usually be carried out by the scaffolding contractor who erected the scaffold.

Every scaffold from which a person could fall 2 metres or more must be inspected by a competent person at least once in every 7 days. A competent person must also inspect any scaffold before it is used if it has been exposed to weather conditions, or some other factor, which may have affected its safety.

A written record of the thorough examination and the regular inspections specified above must be completed by the relevant competent person. These records must include the information specified in Regulation 31 (see also appendix 8).

Collective fall protection systems

If it is not reasonably practicable to use measures which prevent a fall, then collective safeguards, such as nets and airbags, for arresting falls and mitigating the consequences should a fall occur, may be used. This decision must be justified by risk assessment and a safe work method statement prepared which identifies how the work can be carried out safely using the type of safeguard selected, including rescue procedures.

Nets

A safety net system should only be installed by trained and competent people, and must be attached to suitable anchor points capable of supporting any foreseeable loadings in arresting a fall and during subsequent rescue. The nets should be positioned as close as possible to the working level to minimise the height of a fall. There must be adequate clearance below the net to allow for deformation of the net without any person falling into it striking the ground or another object.

The net system should be inspected by a competent person after installation and a completed handover certificate provided to the relevant contractor. The system should be subject to weekly inspections, which should be recorded, and the net installer consulted when the net has been used to arrest a fall.

The risk assessment justifying the use of nets, and the safe work method statement prepared for their use, must cover how the nets are to be installed safely and the procedures for rescuing somebody from a rigged net.

Other soft landing systems such as air bags

There are a number of soft landing systems available which can reduce the risk of injury in the event of a fall from height. They can be particularly effective in traditional house building, for example during the installation of flooring and roof trusses.

Two common systems are air bags, which require an air compressor to maintain the pressure in the bags so they will absorb the energy of someone falling onto them without bouncing, and polystyrene-filled bags clipped together to completely fill in the area beneath which work is being carried out. The depth of the bags both softens and reduces the distance of a fall.

The installation and inspection of any soft landing system is critical and must be undertaken by trained and competent people. Such systems often require strict discipline to ensure the protection remains correctly positioned as work progresses to ensure that modules are always below where work at height is taking place. Effective supervision should be provided to ensure the correct use of the system.

Personal fall protection systems

Where it is not reasonably practicable to avoid or prevent a fall from height, or minimise the distance and/or consequences of a fall through collective measures, a personal fall protection system can be used. This decision must be justified through risk assessment.

Any personal fall protection system must be correctly designed and installed by suitably trained and competent people. All users must be sufficiently trained in the use of such equipment, including rescue.

A suitable rescue plan must be prepared and incorporated into the safe work method statement whenever a personal fall protection system is used. The arrangements should not rely upon rescue by the emergency services, such as the Fire and Rescue Service, as this may result in a critical delay.

Work restraint

A work restraint system is designed to restrict the movement of a worker, such that they cannot physically access a position from which they can fall, either whilst accessing their place of work or at the working area itself. The user must be suitably trained, the harness correctly fitted and used and the lanyard kept as short as possible.

This type of system is most commonly designed for light short-duration work and for inspection and maintenance purposes on flat roofs. In some cases a permanent or temporary horizontal running line is utilised. A harness can also be used as a work-restraint when working from MEWPs or cradles.

Whilst a fixed length lanyard should always be selected first, adjustable lanyards may be appropriate for use in very limited circumstances but will require a very high level of training and supervision to ensure they are used correctly.

Work positioning systems

A fundamental principle which distinguishes work positioning from work restraint is that in work positioning the user relies on the system for support to maintain a work position, e.g. work on a steep incline. In such cases, the user will be in tension. Work positioning also applies to someone in suspension.

When a work positioning system is used on a construction site, a suitable back up system for preventing a fall should be provided. For example, this can include the use of a single line on a sloping surface fitted with edge protection, or a second line used as a back up providing the user is attached to it.

The back up system can be omitted if it is not reasonably reasonable to provide one, as long as all practicable measures are taken to increase the factors of safety in some other way and prevent equipment failure and the line being cut.

Rope access and positioning techniques

A fundamental principle which distinguishes work positioning (where a rope is used) from rope access is that during work positioning, the rope moves with the user. If the rope remains stationary and the user moves along it using their own effort then it is rope access.

When rope access is used two separately anchored lines must be used; one as the working

line and the other as the safety line. The user must wear a suitable harness which is connected to both the working line and safety line.

The working line must be equipped with a safe means of ascent and descent, which has a self-locking device which fails to safe, i.e. if the user loses control of their movements they will be stopped from falling. The safety line must be equipped with a mobile fall protection system which is always connected to, and which follows or is moved with, the worker during any tasks they perform.

Where necessary, taking into account the nature and duration of the work, a suitable seat with appropriate accessories should be provided when a rope access or positioning technique is used.

Where it can be clearly demonstrated by risk assessment that the use of a second line will entail higher risk, for example during rescue where the deployment of a second line will introduce delay or entanglement risk, the system may comprise of a single rope. It is considered, however, that there are only a few exceptional circumstances where the use of a single line can be justified for rope access techniques.

Fall arrest systems

A fundamental principle which distinguishes fall arrest from work restraint is that the user will be in a position from which a fall **can** occur.

The use of a harness connected to an anchor point to arrest a fall should only be used as a last resort. To be effective it relies on the individual user having a high degree of training, competence and supervision.

Every fall arrest system must incorporate suitable energy absorption to limit the forces on the users body in the event of a fall.

The system should also be designed so there will be no sharp edges over which a deployed system could be cut and there is a sufficient clearance zone to allow the system to be deployed safely. This should take into account the potential for both free fall and a pendulum effect, where the faller swings like a pendulum striking the structure or other obstacle.

The fall factor, i.e. the height of a fall divided by the length of the lanyard, is a critical consideration with fall arrest. This should be minimised so that the fall distances and associated risk of injury from a fall and risk of equipment failure are minimised during the deployment of a fall arrest system.

Wherever possible, the secure anchor point of the lanyard should be above the user's head, as this will limit the fall height. There must always be adequate clearance to allow the system to deploy and arrest the fall before the faller strikes the ground or another obstacle – this must take into account the free fall height, stretch of the components and deployment of the energy absorber. Such information should be obtained from the manufacturer or supplier of the system.

Inertia reels (self-retracting fall arrest devices) can be used under certain circumstances. Designed such that a steel cable or material webbing line pays out and is retracted automatically as the user moves around, they are fitted with a braking mechanism which stops the line being paid out and locks it in the event of a fall (similar to a car seatbelt). In almost all cases they are only designed to be used with an overhead anchor within a 30 degree cone under the anchor. If anchored in any other way, for example in the horizontal plane, written confirmation from the manufacturer/ supplier must be obtained to demonstrate that the system can be used safely in the intended configuration.

Ladders

Where a ladder is used for work at height, the relevant contractor must ensure that a suitable risk assessment has been carried out to demonstrate that it is appropriate because the work is low risk **and** is short duration or it is impracticable to use safer access equipment because of existing features of the site which cannot be altered.

Short duration ladder work is generally considered to be work which requires the worker to stay up the leaning ladder or stepladder for less than 30 minutes at a time.

Any type of ladder should only be used where it can be used safely, for example where the ladder will be level and stable and is suitable for any loadings which may be imposed on it (including the workers weight, any materials or equipment they may be carrying and any forces imposed by the nature of the working activity).

Any ladder should be suitable for its intended use (British Standard Class 1 'industrial' standard is considered appropriate for most work situations), be in good condition and subject to a regular maintenance programme, including both pre-use checks and regular detailed visual inspections. Ladders that are part of a scaffold system must be inspected at least once every 7 days as part of the scaffold inspection requirements.

Portable leaning ladders must be secured, for example, by tying both stiles of the ladder to prevent it slipping either outwards or sideways or using an effective ladder stability device. If these are not possible, the ladder should be securely wedged. Relying on an individual to foot the ladder should be the last resort. It is important to ensure that the upper resting surface is strong enough to take the loading – ladders should not be rested against weak surfaces such as glazing or plastic gutters.

Work should not be carried out from the top 3 rungs, and every portable ladder should, where possible, extend at least 1 metre (3 rungs) above the working place.

Ladders used to access to another level should be tied and extend at least 1 metre above the landing point to provide a secure handhold, unless an alternative firm handhold is provided.

If a ladder or run of ladders rises a vertical distance of 9 metres or more then, where reasonably practicable, sufficient safe rest platforms or landings must be provided at regular intervals.

Stepladders are not designed for any degree of side loading and should be positioned, whenever possible, to face the work activity. When side loadings cannot be avoided, such as side on drilling in a restricted space, and there is no safer alternative access equipment, the stepladders should be prevented from tipping over, e.g. by tying the steps to a secure fixing point.

When using a stepladder, work should not be carried out from standing on any of the top 3 steps (including the step forming the very top of the stepladder) unless there is a suitable handhold.

Appendix 8

Record of inspections

There are various places of work and items of work equipment that require thorough examinations and/or regular inspections and testing. These include scaffolds, hoists, excavations, mobile elevating work platforms, soft landing systems and nets, work restraint and fall arrest systems etc.

A number of Regulations set out a specific requirement for certain examinations and inspections to be recorded in writing:

- Regulation 26 - Excavations
- Regulation 27 - Scaffolds from which a person can fall a distance of more than 2 metres
- Regulation 30 - Hoists

The written record of the thorough examination/ inspection must include the information detailed in Regulation 31, namely:

- the name and address of the relevant contractor of the relevant construction work
- the address of the construction site
- a description of the relevant construction work
- the date and time of the inspection
- details of any risk that was identified
- any action taken to control that risk
- the name and the address of the competent person who carried out the inspection

An example of a suggested format for such a record is on page 74.

A table summarising the timing and frequency of thorough examinations/ inspections and checks of the relevant places of work and work equipment can be found on page 75.

Thorough Examination/ Inspection Record

Excavation Inspection Record

- ☐ Start of shift (before work starts)
- ☐ After event likely to have affected its strength or stability
- ☐ Accidental fall of material or material dislodged

1. Name & address of relevant contractor for whom inspection was carried out

Scaffold/ Hoist Inspection Record

- ☐ Before first use after assembly/ installation
- ☐ After substantial alteration/ extension/ repair (hoist)
- ☐ Weekly (scaffold) / 6 monthly (hoist)

2. Construction site address

3. Location and description of the work equipment, or excavation inspected

4. Date and time of inspection

5. Details of any risks identified

6. Can the relevant construction work be continued safely?

Yes / No

7. If 'No', name of person informed (from relevant contractor)

8. Details of any action taken as a result of matters identified in 5 above

9. Signature & name of person inspecting

10. Address & position of person inspecting

Place of work or work equipment	Timing and frequency of checks, inspections and thorough examinations									
	Inspect after installation or assembly in any position (see note A)	Inspect at the start of every shift before work	Inspect intervals not exceeding 7 days (see note A)	Inspect at suitable intervals	Inspect after any event likely to have affected its strength or stability	Inspect after any material unintentionally falls or is dislodged	Inspect after work equipment has been substantially altered or extended	Inspect after every occasion when the equipment has been subject to conditions liable to affect its safe use	Thoroughly examined at least once in every 6 months whilst it continues to be used	
Excavations which are supported or battered back to control risks	✓ *	✓ *			✓ *	✓ *				
Hoists provided for the movement of workers or materials on a construction site	✓ * test and examination						✓ * or repaired; test and examination		✓ *	
Scaffolds from which a person could fall more than 2m	✓ * thorough examination before first use		✓ *				✓ * thorough examination	✓		
All other working platforms (e.g. MEWPs, trestles), guard rails, toe boards, barriers and similar collective means of fall protection	✓			✓				✓		
Collective safeguards for arresting falls (e.g. nets, airbags, soft landing systems)	✓			✓				✓		
Personal fall protection systems (including work positioning, rope access, work restraint and fall arrest systems)	✓			✓				✓		
Ladders and step ladders	✓			✓				✓		

*A written record of Thorough Examination/ Inspection must be completed to include the information detailed in Regulation 31. An example of a suggested format for such a record is included in Appendix 8 of the Guidance on Construction (Jersey) Regulations 2016.

A) 'Installation' means putting into position and 'assembly' means putting together. A separate inspection is not required every time a tower scaffold or ladder is moved on site, however, if a tower scaffold from which a person can fall more than 2 metres is dismantled and reassembled on the same site a pre-use inspection is required. It is acceptable for this inspection to be carried out by the person responsible for erecting the tower scaffold, providing they are competent.



Contacts

Health and Safety Inspectorate (HSI)

The Inspectorate may be contacted for further advice on specific matters:

Maritime House
La Route du Port Elizabeth
St Helier
Jersey
JE2 3NW

Telephone: 01534 447300

Email: hsi@gov.je

Information and guidance may also be viewed online and downloaded from the website:
www.gov.je/hsi

Jersey Legal Information Board

The Health and Safety (Management in Construction) (Jersey) Regulations 2016, can be viewed on the official website: www.jerseylaw.je

Health and Safety Executive (HSE)

The HSE provides information and guidance on all aspects of work-related health and safety. Please note that the legislation mentioned in HSE publications does not apply in Jersey; reference to HSE publications is intended to provide useful advice.

Priced and free publications are available on the HSE website: www.hse.gov.uk

British Standards Institution (BSI)

British Standards can be purchased via the website: www.bsigroup.com





Health and Safety Inspectorate
Maritime House
La Route du Port Elizabeth St.
Helier
Jersey
JE2 3NW

Tel: 01534 447300
E-mail: hsi@gov.je
Website: www.gov.je/hsi

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