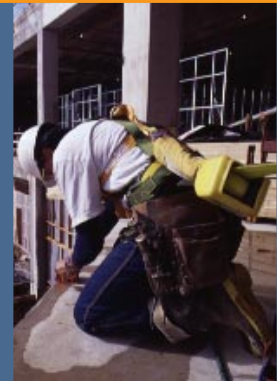
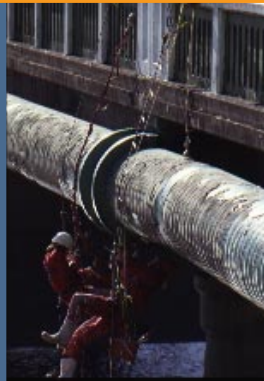




Construction Safety Management Guide

Best Practice Guidelines in the Management of Health and Safety in Construction



Published by Site Safe New Zealand
22 The Terrace
Wellington
New Zealand

First Edition: May 1999

ISBN 0-473-06016-7

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A Word About Site Safe

Site Safe is a small independent organisation set up by the construction industry. Its single job is to reduce construction injuries and deaths by taking the lead in promoting construction site safety. This guide is the first step towards that goal.



Acknowledgements

Site Safe would like to thank the Accident Rehabilitation and Compensation Insurance Corporation (ACC) and the Building and Construction Industry Training Organisation (BCITO) for financial assistance to develop this guide, as well as the following organisations:

- Fletcher Construction
- Hartner Construction
- Hawkins Construction Ltd.
- Mainzeal

Many other organisations and individuals from various industry sectors have been involved in both the consultation and development process. OSH in particular made a contribution to the writing and formatting of the guide. Site Safe and the construction industry would like to thank all those involved.



About This Guide

Construction can be a hazardous business. This is widely recognised by OSH, and everyone in the construction industry. When accidents happen, the costs are high – in people, profits and productivity.

One of the best ways to avoid injuries and minimise costs is through good planning and co-ordination – both before and on the job. This should start when the decision is made to go ahead with the project, and should consider all stages and parties associated with the work. In this case, the size of the job doesn't matter — systems do.

This guide is intended as a useful tool to provide all players in the construction industry with a better understanding of their roles and responsibilities under the Health and Safety in Employment Act (HSE Act 1992).

More than that, it tries to present a picture of what is possible – a future where site safety in New Zealand is as good as, or even better than, the best in the world.

It's also worth noting that following this guide could help you provide a means of demonstrating the practicable steps you have taken to fulfil your responsibilities.

This guide is *not* intended as a step by step guide to the HSE Act, nor is it a guide to planning and on-site processes. It *is* intended to reinforce the understanding of the various roles people involved with construction may have and how they can assess their performance in these roles.

Future sector-specific workplace guides will contain more detail to support this guide. But, if you need to know more now, the Act is readily available from Bennett's Government Bookshops and selected stationers.

What's in the Guide?

The guide has been developed in consultation with representatives of the construction industry, OSH, building/property owners and developers, and architects and engineers.

It includes:

- a brief overview of the purpose and requirements of the Act
- an explanation of the roles, responsibilities and key tasks of everyone working on a project
- a list of important terms and what they mean

Note: Throughout this guide, terms marked with an asterisk* are defined in the section *Key Terms and What They Mean* (pp.21-23).



The Health And Safety In Employment Act – A Brief Introduction

The main purpose of the Health and Safety in Employment Act is to make the workplace safer through better management of health and safety.

Everyone involved in a construction project is responsible under the Act, including:

Work Group:	Roles you could have:
Clients	Principal*, employer, person who controls a place of work*.
Designers/ advisers* (includes architects, engineers, consultants etc.)	Principal, employer, self-employed, employee.
Head contractors*	Principal, employer, subcontractor, person who controls a place of work.
Subcontractors	Principal, subcontractor, employer, self-employed, person who controls a place of work.
Employees	Employee, subcontractor.

Though the client has responsibility as a ‘principal,’ several people can be principals at any one time, and all key people involved in a project have a duty to provide for the health and safety needs of their own areas of operation.

Note: Anyone who contracts another party for any part of a construction project (that is, has engaged anyone to work on the project for gain or reward other than an employee) has a duty as a ‘principal’. *Remember*, you may be wearing more than one ‘hat’ at any particular stage of the project.

However, this does not apply when work is being done on or in your own home – though information found in this guide may still be useful in this situation.



What the Act Requires for Principals

Principals are required to take ‘all practicable steps’* to ensure the health and safety of people contracted by them to carry out work of any kind throughout all stages of a project. In terms of ‘best practice’, they also have a duty to consider the safety of others who may be affected by the project, such as the public.

To achieve this, the principal (depending on their knowledge and experience) may need help from designers/advisers, contractors and subcontractors.

The steps required will depend on the size and scope of each project. The larger the project, the wider the range will be of possible risks and hazards.

Designers/advisers in particular need to consider the potential effect of their actions and designs* on the health and safety of those carrying out the work and others affected by it.

What it Means on the Job




In short, everyone involved with a construction project of any kind — from planners, designers and supervisors through to on-site workers — have a role to play in the management of health and safety during a construction project. This level of duty* for each duty holder* doesn’t go beyond what is reasonable for them to take.

Remember to keep records:

Maintaining a record (a ‘paper trail’) of all the steps you have taken for the health and safety of any project under your control is the best means you have of demonstrating how you have complied with the obligations you hold.



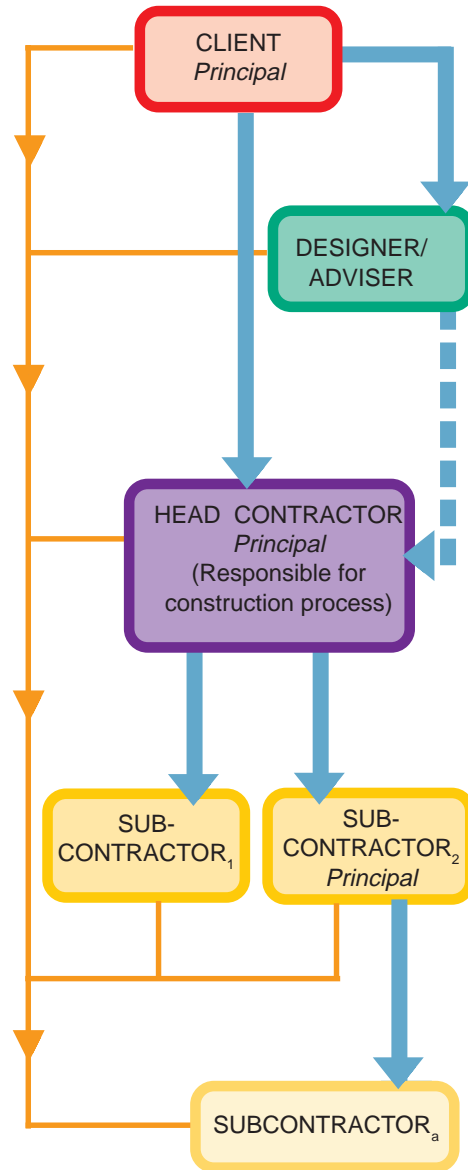
The Principal to Contractor Relationship

Principal relationship 
 Possible principal relationship 
 Duty link you may have 

Though you may not have directly engaged the groups several steps removed from you, you still have a duty to ensure their safety to a level that could be reasonably expected of you.

What you can do will usually decrease the further you are removed from their engagement, but you are still required to do what could be reasonably expected given the circumstances.

For example: the head contractor is usually more able to influence general site safety, and less able to influence how subcontractors carry out specialist tasks for which the head contractor has no expertise.



The client may choose to engage a designer/adviser to act on their behalf, or they may choose to directly engage a contractor(s). In either case, the client has the role and responsibilities of a principal to the groups below. In some instances, the designer/adviser will simply act as the client's agent.

Where a designer/adviser directly contracts with the head contractor, the designer/adviser may take on the role and responsibilities of a principal to the contractor(s) and the groups below.

Designers/advisers may also be engaged by the contractor(s) (essentially as a subcontractor) to design the works, the construction processes and temporary works.

If the head contractor then engages subcontractors to assist in the construction, the head contractor then takes on the role and responsibilities of a principal to the sub-contractors and the groups below.

If the subcontractor₍₂₎ then chooses to engage a further subcontractor_(a) to assist with their work, they too take on the role and responsibilities of a principal to the subcontractor_(a).

Health And Safety Action Planning – Key Points

The seven important points for successful planning include:

- A commitment to safe practice
- Knowledge/expertise
- Effective management
- Co-ordination/communication/feedback
- Information
- Training
- Monitoring/reporting



The Construction Project — In Brief

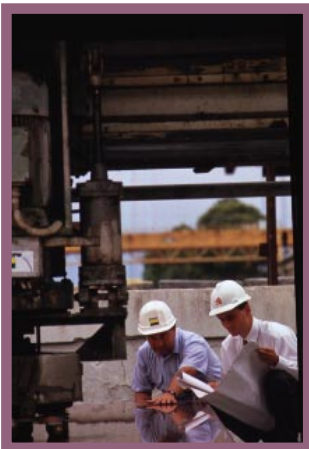
Where Health and Safety Planning Fits and Who is Responsible

Area of work to be considered	Responsibility ('the team')
Planning and design	Client, designers/advisers
Preparation of health and safety plans	Client, designers/advisers, contractors
Selection of designers and contractors	Client, designers/advisers
Planning and scheduling of the work	Designers/advisers, contractors
Carrying out the construction work* or parts of it	Advisers, contractors

Before You Start

The Team: Client, Designers/Advisers, Contractors

The client decides to go ahead with construction work (this may include repairing, refurbishing, demolishing or maintaining a structure). Decisions are made regarding the overall plan, initial design, and construction methods that will affect health and safety throughout the project.



A Special Word to Clients

To date, you've probably already spent a considerable amount of time and money complying with Government and Local Authority legislation and planning requirements.

At this point you take on the role of a 'principal'* under the HSE Act.

As a principal, you now have the duty to make sure that people or organisations you may contract to carry out the various stages of your project are safe while working on the site. You're the person who has the authority and responsibility to make sure that health and safety is managed and co-ordinated and that the necessary steps are taken to make this happen by all those involved in the project.

So it's in your interests to make sure that health and safety are integral to the total planning for the project.

Points to Consider

To be sure you are meeting requirements at this early stage, make sure you consider the following points:

- Designers and advisers you have appointed have the necessary health and safety knowledge and experience.
- Timeframes and budgets will allow health and safety provisions to be included in the project.
- Procedures will be in place to assess contractors' ability to manage and control health and safety on the project.
- Plans to monitor on-site health and safety will be included.
- All relevant health and safety information about the project, such as any known hazards, will be provided to the advisers and contractors.
- Procedures will be developed to make sure there is ongoing co-ordination of information and activity between all contractors (and the client) during construction.



Stage 1&2 –The Project Begins/ Design and Planning

The Team: Client, Designers/Advisers

Detailed design and planning work is done, giving consideration to health and safety at each stage. Final production information (such as drawings and specifications) are produced. Preparation of information for the tendering process begins, including the pre-tender health and safety requirements.

Stage 3 – Tender/Selection

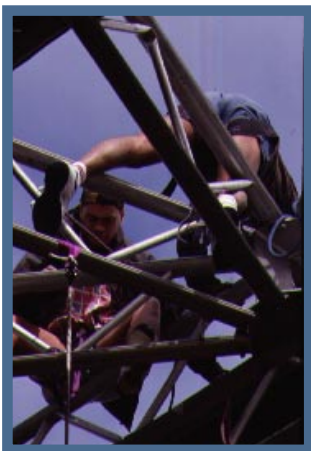
The Team: Client, Designers/Advisers, Head Contractors

Tender documentation is finalised. Pre-qualification procedures and the pre-tender health and safety site requirements are checked and used to make sure that the contractors have made adequate provisions for health and safety and are competent to carry them out.

Stage 4 – Construction

The Team: Client, Designers/Advisers, Head Contractor, Subcontractors

The selected head contractor plans, programmes and prepares the construction work methods. A site-specific health and safety plan is developed, implemented, monitored and updated throughout the construction stage. Health and safety plans of contractors and subcontractors are monitored until the project is completed and all trades have left the site.



Key Tasks And Who Does Them

Stage 1 & 2– The Project Begins/Design and Planning

Clients: Questions You Need to Ask

- Have you:*
- made sure that any designer/adviser or contractor engaged to do any work is professional and has made adequate provision for health and safety?
 - provided information needed for the health and safety management of the project, including pointing out any known hazards?
 - made sure of co-ordination between designers/contractors?
 - checked that designers consider health and safety in their design?
 - considered the timeframes required for the safe completion of the project?

Designers/Advisers: Questions You Need to Ask

- Have you:*
- considered how your design and planning will impact on the health and safety of all those involved in the project?
 - provided the client and others on the project with information about the health and safety risks associated with your design and planning?
 - co-ordinated with other designers/advisers involved in the project?

Also:

- has a reasonable building programme been prepared?

If you or your staff have day-to-day management responsibility on the site:

- are they familiar with the health and safety requirements of on-site activities, as well as the health and safety requirements of your own organisation?



Stage 3 – Tender/Selection

Clients: Questions You Need to Ask

- Have you:*
- made sure that a pre-tender stage selection procedure that takes health and safety into account has been prepared (this may be prepared by the designer/adviser on your behalf)?
 - provided the designer/adviser and tenderers with relevant health and safety information (such as existing drawings, any existing site safety plan — including any known hazards, surveys of the site or premises or information on the location of services)?

Designers/Advisers: Questions You Need to Ask

- Have you:*
- obtained sufficient information from the client and other parties to make sure the plan is prepared competently (such as drawings, job specifications and product specifications)?
 - prepared the pre-tender stage health and safety plan, where requested, on behalf of the client (essentially, this is a collection of information about the significant health and safety risks of the project)?
 - provided the client and potential contractors with information about the risks that cannot be avoided and will have to be controlled by the head contractor and other contractors?
 - provided advice, where requested, to the client on the health and safety performance of potential contractors and organisations tendering for the work?



Stage 4 – Construction

Clients: Questions You Need to Ask

- Have you:*
- made sure the building programme allows sufficient time to carry out the construction phase safely?



- made sure construction work does not begin until the head contractor has prepared a suitable health and safety plan?
- made sure you are satisfied that any contractors carrying out construction work are competent and have made proper provision for health and safety (such as by seeking advice from other advisers or organisations as to the ongoing competency of people contracted to do any of the work)?
- provided ongoing advice and information, if requested, regarding the head contractor's health and safety plan (such as by advising them of any changes to planned activities)?
- made sure the designers/advisers and other contractors continue to carry out their duties and co-ordinate with others on the project (such as by requesting regular written activity reports)?

Designers/Advisers: Questions You Need to Ask

If you are involved in the construction phase

- Have you:*
- continued to identify the impact of changes in your design on the health and safety of those involved in the project?
 - continued to provide sufficient information on health and safety associated with your design and planning to those who need it?
 - co-operated and co-ordinated with the contracted parties, and, where appropriate, other designers/advisers involved in the project?
 - provided ongoing advice and information, if requested, regarding the head contractor's health and safety plan (such as by advising of any changes to planned activities)?
 - made sure other designers/advisers and contractors continue to carry out their duties and co-ordinate with others on the project (such as by asking for regular written activity reports or holding site meetings)?

Head Contractors: Questions You Need to Ask

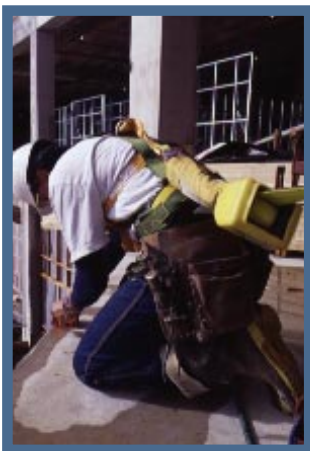
- Have you:*
- developed and carried out a site-specific health and safety plan (see page 19)?
 - made sure any contractor engaged to carry out construction work is competent and has made suitable provisions for health and safety?



- obtained and checked site-specific safety plans from subcontractors?
- ensured the co-ordination and co-operation of subcontractors regarding:
 - information and on-site activity (such as site meetings, site procedures)?
 - appropriate communication arrangements between contractors on site for health and safety?
 - arrangements for discussing health and safety matters with people on site (such as setting regular toolbox/tailgate* meeting times)?
 - incident and accident reporting?
- made sure training for health and safety is carried out?
- made arrangements to monitor health and safety performance (such as reports, audits and inspections)?
- made arrangements to pass on information from the client or designer/ adviser to other contractors and employees (such as activity reports)?
- made arrangements to control visitor access, including such things as delivery of materials?

Subcontractors: *Questions You Need to Ask*

- Have you:*
- developed a site-specific safety plan for your work activity (see page19)?
 - identified the hazards of your work, assessed the risks arising from them, and told the head contractor and client about how these risks will be controlled?
 - evidence of the training and competence of your subcontractors and employees?
 - kept the head contractor informed of any dangerous incident or accident?
 - provided the head contractor with the information needed for health and safety management?
 - co-operated with the head contractor and other contractors on health and safety matters?
 - followed any directions of the client or head contractor so that they can meet their obligations?
 - provided information to your employees on site?



Health And Safety Planning

Pre-Tender Stage Planning

What's in it?

This plan contains information about the health and safety hazards of the project that will have to be managed during the work.

What's it for?

The purpose of this plan is:

- to provide a focus for bringing the health and safety issues of design to the attention of parties likely to be affected (such as tenderers)
- to enable contractors submitting tenders to be fully aware of the project's health, safety and welfare requirements
- to provide a benchmark against which the tender submissions can be measured

The information will mainly come from:

- **The client**, who provides the designers/advisers, or contractor with information relevant to health and safety, such as existing drawings, surveys of the site, a description of hazards known specifically to the client, and so on.
- **The designers/advisers**, who provide information about the risks which cannot be avoided and will have to be controlled by the head contractor and other contractors.

What Should be Considered in Pre-tender Stage Health and Safety Planning?

Planning will depend a great deal on the nature and scope of the project concerned. However, the following questions need to be thought about:

- What is the nature of the project (location, type of work, and so on)?
- What is the site location and local environment like (such as services,



surrounding land use, or ground conditions and other buildings and structures)?

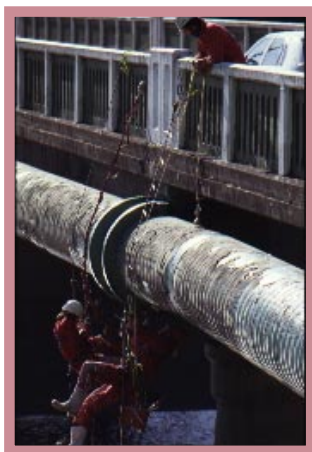
- Are there any existing drawings and what relevant information do they show (available drawings of the building or structure)?
- What is the planned design and what information exists on the hazards that cannot be avoided?
- What other site-wide factors are there (such as any special client needs, e.g. access for school children, the positioning of the site access or exit points, location of unloading, or layout and storage areas)?
- Will there be any overlap with the client's own activities during the project (particularly where construction work is to take place at the client's premises)?
- How will you satisfy yourself that the tenderers are competent to deal with health and safety on the project?
- What site rules relating to the client do you need (such as emergency procedures, permit-to-work rules and so on, laid down by the client when work takes place at their premises)?
- How will you maintain continued liaison and co-ordination for health and safety on site (procedures for dealing with design work prepared after the work has started)?

The Project (Construction Stage) Site-Specific Plan

The construction stage site-specific health and safety plan sets out the arrangements for securing the health and safety of everyone carrying out the work and all others who may be affected by it.

It deals with:

- the arrangements for the management of health and safety of the workplace (such as hazard identification, evacuation, site safety checks, and so on)
- the monitoring systems for checking that the health and safety plan is being followed (such as evidence of regular health and safety site awareness talks)
- health and safety risks to those at work, and risks to others arising from the work — or from other work in the premises where the work may be carried out



The question to ask yourself is:

What should go into the project site-specific health and safety plan?

It should include:

- the assignment of health and safety responsibilities for implementation on site
- methods for hazard identification (such as task analysis)
- incident and accident investigation and reporting methods
- on-site emergency procedures (such as fire, earthquake, chemical spills)
- strategies for site communications (such as site meetings)
- a site safety audit programme (from full audits to site inspection)
- the system for co-ordination of on-site trade activities (such as methods for information sharing)

Sector-specific guides will be developed in consultation with representatives of the construction industry, to provide step-by-step practical help in developing individual plans and procedures.

If you would like more information, visit the Site Safe New Zealand web site: (www.sitesafe.org.nz) or contact Site Safe at 22 The Terrace, Wellington. Phone (04) 499-4052, fax (04) 499-4053.



Key Terms And What They Mean

Note: in this section key terms as defined under the Act or Regulations are identified with[¶]

All practicable steps[¶]

“All practicable steps”, in relation to achieving any result in any circumstances, means all steps to achieve the result that it is reasonably practicable to take in the circumstances, having regard to –

- (a) The nature and severity of the harm that may be suffered if the result is not achieved; and
- (b) The current state of knowledge about the likelihood that harm of that nature and severity will be suffered if the result is not achieved; and
- (c) The current state of knowledge about harm of that nature; and
- (d) The current state of knowledge about the means available to achieve the result, and about the likely efficacy of each; and
- (e) The availability and cost of each of those means.

This means, in effect, actions that are reasonably able to be taken in the specific circumstances to achieve the result.

Construction work[¶]

- (a) Means any work in connection with the alteration, cleaning, construction, demolition, dismantling, erection, installation, maintenance, painting, removal, renewal, or repair, of:
 - (i) Any building, chimney, edifice, erection, fence, structure, or wall, whether constructed wholly above or below or partly above and partly below, ground level;
 - (ii) Any aerodrome, cableway, canal, harbour works, motorway, railway, road, or tramway;
 - (iii) Anything having the purpose of drainage, flood control, irrigation, or river control;



- (iv) Any distribution system or network having the purpose of carrying electricity, gas, telecommunications or water;
- (v) Any aqueduct, bridge, culvert, dam, earthwork, pipeline, reclamation, reservoir or viaduct;
- (vi) And scaffolding.

And:

- (b) Includes any work in connection with any excavation, preparatory work, or site preparation carried out for the purposes of any work referred to in paragraph (a) of this definition; and
- (c) Includes any work referred to in paragraph (a) or paragraph (b) of this definition carried out underwater, including work on buoys, obstructions to navigation, rafts, ships, and wrecks; and
- (d) Includes the use of any materials or plant for the purposes of any work referred to in any of paragraphs (a) to (c) of this definition; and
- (e) Includes any inspection or other work carried out for the purposes of ascertaining whether any work referred to in any of the paragraphs (a) to (c) of this definition should be carried out.

But

- (f) Does not include any work in any mine, quarry or tunnel.

While work in mines, quarries and tunnels is excluded from the legal definition of 'construction work' this document may still provide a useful guide for these types of work.

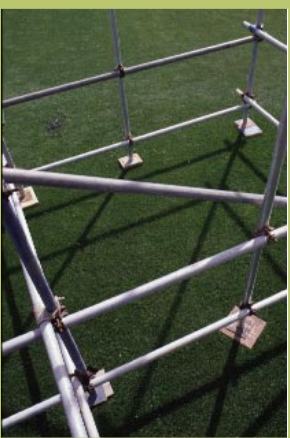
Design

Includes specification and the production of drawings, design details and quantity requirements.

Designers/Advisers

Individuals or organisations who carry out the design of the project, or anyone who provides advice on a construction project.

This may include architects, consulting engineers, quantity surveyors, specifiers, project managers and health and safety consultants who may be part of the design team or give specialist advice.



Designers/advisers may be engaged by a client to design the permanent works and monitor construction. They may also be engaged by a contractor to design the permanent works and/or the construction processes and temporary works.

Duty holders

All individuals or parties who exercise control over all or part of the workplace activity, from clients through to self-employed contractors or subcontractors.

Head contractor

The contractor appointed by the client to take overall responsibility for the management of site operations, including the development and management of a safety plan for health and safety on site.

Level of duty

The duty of each duty holder involved in a construction project does not go beyond the measures which are reasonable for them to take. However, they are responsible for ensuring that duty holders contracted or employed by them adequately fulfil their duties, and provide adequate resources for them to do so.

Person who controls a place of work¹¹

A person who is:

- (a) the owner, lessee, sub-lessee, occupier, or person in possession of the place of work or any part of it; or
- (b) the owner, lessee, sublessee, or bailee of any plant in the place.

Principal¹¹

A person who engages any person (other than an employee) to do any work for gain or reward.

Toolbox/tailgate meetings

Brief instruction or training sessions dealing with a specific subject or task such as health and safety.

