Working safely in the house relocation industry

This guide is to assist a person conducting a business or undertaking (PCBU) in the house relocation industry to meet their duties under the *Work Health and Safety Act 2011* (WHS Act) and the Work Health and Safety Regulation 2011 (WHS Regulation).

This guide relates to work involving removing and relocating houses from one site to another and raising or lowering houses on site.

Relocating or raising/lowering houses is considered to be 'construction work'. This means that as well as meeting general work health and safety requirements the PCBU must also address specific requirements for construction work.

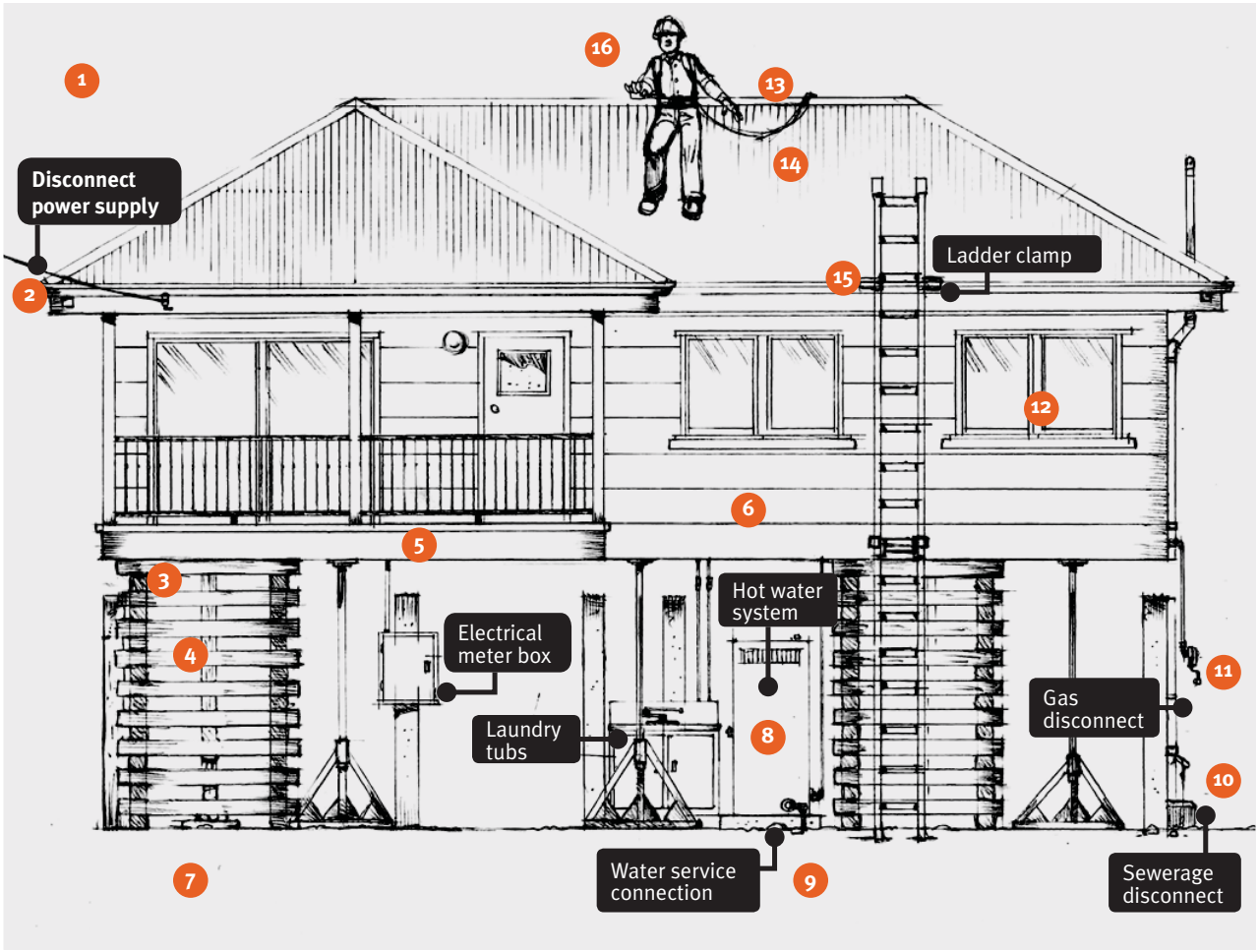
What are the risks?

When relocating or raising/lowering houses, PCBUs must manage the risk associated with the work. Typical risks include:

- the risk of falls when working at heights
- working around essential services, such as gas and electricity
- working near powered mobile plant
- asbestos exposure.

Although each job is different, the checklist in Appendix A provides guidance on a range of hazards and risks you should consider.

Preparing a house for removal



1. Have hazards such as wind, rain and heat been assessed?
2. Overhead and underground electrical services must be disconnected by an authorised authority.
3. Ensure there is a minimum clearance between the pigsties and supporting beams.
4. Consider the durability, load limit and stability of timber pigsties. Ensure lifting jacks are serviced and well maintained.
5. Assess the condition and stability of the dwelling before it is moved.
6. Arrange to have asbestos removed by a licensed asbestos removalist or seek approval from Workplace Health and Safety Queensland before moving a building with asbestos.
7. Assess suitability of soil conditions and ground slope to support the pigsties and jack stands.
8. Disconnect the hot water system and split-system air conditioners.
9. The water service must be disconnected by an authorised authority.
10. The sewerage must be disconnected, sealed and inspected by a local authority.
11. The gas service must be disconnected by an authorised authority.
12. Remove, close or tape up windows and doors to prevent glass breakage.
13. Prepare a safe work method statement for any high risk construction work (e.g. construction work that involves a risk of a person falling more than 2 metres).
14. Ensure fall protection for anyone working at heights.
15. Ensure ladder access and egress is secure and safe.
16. Ensure all workers are advised of and understand the lifting plan.

What do you need to do?

Risk management

Managing work health and safety risks involves four important steps.

1. Identify the hazards

Some hazards such as working at heights will be obvious, but others, such as an underground gas service, may be more difficult to identify. Working closely with workers and looking at every work task will assist in finding potential hazards.

2. Assess the risks

A risk assessment involves considering what could happen if someone is exposed to the hazard and the likelihood of it happening. For example you need to consider what might happen if a worker operating an item of mobile powered plant contacted a live overhead power line. A risk assessment does not have to be complex but it does have to be effective.

3. Control the risks

If possible you need to eliminate the risk completely. For example, if there is an underground gas supply you should arrange to have it turned off before commencing work. If you can't eliminate the risk then you need to implement control measures to minimise the risk so far as is reasonably practicable. So, if you can't turn the gas off at the street you might put barriers up to prevent workers accessing the areas and damaging the line or put markers up to identify the location of the gas line. Sometimes you may need to use a combination of controls to reduce the level of risk down to an acceptable level.

4. Review the control measures

Controlling risk is an ongoing process especially where the workplace is changing. For example, risks that existed when preparing the house to be lifted, such as falls from heights and contact with overhead lines, might now be replaced by other risks including working around the truck. A review of control measures ensures that both ongoing and new risks are managed effectively.

Record keeping

Although the WHS Regulation only requires records of risk assessments to be kept under certain circumstances, local councils, the Department of Transport and Main Roads or a principal contractor for a construction project may have additional requirements. You should consult with these other organisations to determine their requirements before commencing work.

Consultation

Consultation is essential to managing work health and safety. You need to consult and communicate with your workers, contractors and sub-contractors regularly to ensure everybody is aware of the work being undertaken and any changes that may affect safety at the workplace.

Pre-start and toolbox talks are effective ways to ensure workers know what is happening, while consultation with sub-contractors may be best achieved by phone, email or fax or by arranging to meet them on-site before they start work.

Information, training and induction

You must provide relevant information and training to protect workers from risks to their health and safety arising from the work carried out. Apart from general construction induction training (white card), you also need to provide information and training about WHS issues and safe work practices specific to your workplace, such as:

- hazards and control measures relevant to the site (e.g. a steeply sloped block)
- location of underground services such as electrical or gas
- site specific safety documents, policies and plans (e.g. traffic management plans, a WHS management plan, safe work method statements)
- supervisory, consultation and reporting arrangements
- site safety rules (e.g. requirements for hard hats, hearing protection)
- workplace facilities, including their location, use and maintenance
- first aid provisions and emergency procedures, including after-hours emergency contacts.

Workplace specific induction training can be delivered in a variety of ways, such as toolbox talks, pre-start meetings or on-the-job instructions.

Other training may also be necessary to ensure workers have the relevant information and instruction needed to carry out work safely (e.g. instructions about the use of hydraulic jacks, power tools or trailer mounted lifting equipment). Never assume that new workers know how to use your lifting methods or lifting equipment. Check before they start work for their safety, your safety and the safety of your other workers.

Refresher training may be necessary for tasks that are not carried out on a regular basis, when new or different plant is introduced or you change your work processes.

Supervision

Supervision is important to ensure work is carried out in accordance with relevant policies, procedures or where applicable, a safe work method statement. The degree of supervision will depend on the level of risk involved in the work and the experience and skills of the workers.

Supervision is particularly important for young workers as they are often the less experienced and may not have the same perceptions of risk as other, more experienced, workers.

Plant

Safe use

Before plant is used you must provide your workers with information, training and instruction to enable them to use it safely. Where mobile plant such as skid steer loaders and vehicle loading cranes are used, you need to ensure operators are competent in its use and hold the relevant high risk work licence, where required. Whenever mobile plant is being used on-site you need to ensure that everybody is aware of it as contact with mobile plant is a leading cause of injury in workplaces.

Trewhalla jacks

In 2011, a worker was fatally injured when a house was being lowered using a Trewhalla jack. The operator lost control of the jack and the resulting sudden movement caused the house to slip from its support structures. These types of jacks should only be used in very specific circumstances such as raising a corner of a house where the rest of the house is still secure. They should never be used during the lowering process.

Inspection and maintenance

You need to ensure that plant is visually inspected prior to use and maintained and serviced regularly according to the manufacturer's specifications or, in the absence of such specifications, in accordance with a competent person's recommendations. Any repairs to plant must only be carried out by a competent person such as the manufacturer's service agents or suitably qualified tradespeople.

Designing and manufacturing your own lifting equipment

PCBUs who design or manufacture plant for use in a workplace have specific work health and safety design duties. For example, designers must ensure the plant is designed to be without risks to the health and safety of people using the plant, while manufacturers must ensure the plant is manufactured without risks to the health and safety of anyone using it.

If you design or manufacture your own lifting equipment you also take on these duties. This includes ensuring that the plant is designed and tested in accordance with applicable Australian standards and that you comply with requirements for design registration of plant.

These duties also apply if you modify or alter plant that you have purchased.

Asbestos

Houses built before 1990 may contain asbestos. You must identify the presence of asbestos before work commences. Asbestos may be found in:

- wall sheeting or cladding
- roof materials
- old electrical switchboards
- floor coverings.

If asbestos is present you need to arrange for a licensed removalist to remove it before transporting the house, or apply for an exemption to allow the house to be moved with the asbestos still in-situ. Strict conditions apply to these exemptions.

High risk construction work

What work activities are high risk construction work?

The WHS Regulation defines certain construction work as high risk construction work and a number of them may apply to house removal work, including construction work that:

- involves a risk of a person falling more than 2 m
- involves demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure
- involves, or is likely to involve, the disturbance of asbestos
- involves structural alterations or repairs that require temporary support to prevent collapse
- is carried out on or near energised electrical installations or services
- is carried out in an area at a workplace in which there is any movement of powered mobile plant
- is carried out on or near a road or other traffic corridor that is in use by traffic other than pedestrians
- in or near a trench with an excavated depth greater than 1.5 m
- near water or other liquid that involves a risk of drowning.

Before any high risk construction work begins a safe work method statement must be prepared for the work.

Safe work method statements

A safe work method statement (SWMS) is a written document that sets out the high risk construction work activities to be carried out at a workplace, the hazards and risks arising from these activities and the measures to be put in place to control the risks. Its primary purpose is to help supervisors and workers implement and monitor the control measures established at the workplace to ensure high risk construction work is carried out safely. The PCBU carrying out the high risk construction work must either prepare the SWMS, or ensure a SWMS has been prepared before the high risk construction work starts.

The person responsible for carrying out the high risk construction work is best placed to prepare the SWMS in consultation with workers who will be directly engaged in the high risk construction work. They must understand the work being carried out, be responsible for providing training, instruction and supervision to the workers undertaking the work and ensure the SWMS is correctly implemented, monitored and reviewed.

There may be situations where there are different types of high risk construction work occurring at the same time in the workplace, for example, if work is being carried out at heights above two metres and there is a likelihood that it may involve the disturbance of asbestos. In these situations separate SWMS could be prepared or one SWMS could cover both activities.

For more information on developing a SWMS, see Appendix B. Further guidance material can be found at worksafe.qld.gov.au and safeworkaustralia.gov.au.

Appendix A – Risk assessment check list

Pre-planning	
Stability: Is the structure able to withstand the removal process?	☐
Complexity: Are there any unusual features about the structure that may require additional expertise or advice (e.g. engineers, transport company)? • Unusual shape • Weight • Unique construction methods	☐
Access: Can the structure be removed from the site safely? • Ground slopes • Easements • Fences, trees	☐
Services: Have services been disconnected by authorised people? • Power (incoming supply and/or underground supplies to out-buildings) • Water • Gas • Sewerage • Other	☐
The new site: Has the new site been assessed? • Is there safe access to the new site? • Is the site prepared in readiness for the structure (e.g. foundations)? • Have all building permits been obtained?	☐

Onsite hazards	
Has the structure been assessed for asbestos?	☐
Will work be carried out at where there is a risk of a fall? • Roofs • Ladders • Scaffolds	☐
Have other hazards been addressed? • Sun exposure • Heat • Vermin (snakes, wasps)	☐
Are there essential services that may create a risk? • Electricity (including solar panels) • Gas (town and bottled) • Other	☐
Will mobile plant be used on site? • Has the plant been serviced and maintained? • Is it suitable for the task? • Have exclusion zones been established to ensure workers do not come in contact with operating plant? • Are plant operators competent (and licensed if required)?	☐
Is any of the work demolition work that requires a licence or notification?	☐
Has any excavation work been carried out? Note: Additional WHS requirements apply for trenches greater than 1.5 metres.	☐

The lifting process

The structure	
Have tie downs/anchor bolts been removed?	☐
Falling objects: Have loose objects been removed or secured? Have windows and doors been removed, closed and taped up?	☐
Have any sections been identified as in danger of collapse during the move?	☐
Have items such as hot water systems, split system air conditioners been disconnected?	☐
Lifting equipment	
Have lifting jacks been serviced and maintained?	☐
Do lifting jacks have suitable lifting capacity?	☐
Do jack stands have a suitable weight capacity?	☐
Are pigsties suitable for the lift and in good condition? (design, condition of timbers)	☐
Are universal beams of correct size and capacity?	☐
Lifting plan	
Have all workers been advised of the lifting plan?	☐
Are workers competent in the use of the lifting equipment?	☐
Have lifting jacks been placed in accordance with the lifting plan?	☐
Has ground slope and soil conditions been considered when developing jacking procedures?	☐
Are universal beams located correctly?	☐
Are propping methods suitable for the job?	☐
Have you taken steps to ensure the site is safe before leaving? • Have old foundations been removed or made safe? • Are there any gas or water pipes sticking out of the ground? • Have any holes or trenches been filled in or barricaded?	☐

Transporting the structure

Are workers aware of when the move is taking place?	☐
Has the structure been secured correctly?	☐
Has the route been scoped for potential hazards? • Narrow bridges • Overhead electrical lines • Low bridges	☐
Have approvals been obtained where the job involves transportation of asbestos? See WHSQ exemption	☐

Appendix B - Safe Work Method Statement (SWMS) template

Recommended steps for filling out the template

1. Consult with relevant workers involved with the high risk construction work, on the activities involved and associated hazards, risks and controls.
2. In the 'What is the high risk construction work?' column, identify the high risk construction work that will be undertaken.
3. In the 'What are the hazards and risks?' column, list the hazards and risks for each high risk construction work activity.
4. Identify the workplace circumstances that may affect the way in which the high risk construction work will be done, for example:
    - information relating to the design of the structure, the workplace (e.g. location, access, transport)
    - information on any 'essential services' located on or near the workplace
    - confirmation the regulator has been advised of any 'notifiable work' (e.g. demolition work involving explosives)
    - safe work methods and plant to be used.
5. In the 'How will the hazards and risks be controlled?' column, select an appropriate control or combination of controls by working through the hierarchy of controls. It is important you are able to justify why the selected control measure is reasonably practicable for the specific workplace.

Selecting control measures

1. Eliminate the risks, so far as is reasonable practicable.
2. If this is not reasonably practicable, minimise them so far as reasonably practicable by:
    - substituting the hazard
    - isolating the hazard
    - implementing engineering controls.
3. If the risk still remains, minimise it further by implementing administrative controls.
4. If the risk still remains, minimise it by ensuring the provision and use of suitable per sonal protective equipment (PPE).

SWMS compliance (information, monitoring and review)

1. Brief each worker on the SWMS before commencing work. Ensure each worker knows work is to stop if the SWMS is not followed.
2. Observe the work being carried out and monitor compliance with the SWMS. Review risk controls regularly, including:
    - before a change occurs to the work, the system of work or the work location
    - if a new hazard is identified
    - when new or additional information about a hazard becomes available
    - when a notifiable incident occurs in relation to the work
    - when risk controls are inadequate or the SWMS is not being followed.

In all of the above situations stop the work, review the SWMS, adjust it and re-brief the workers.

3. Keep the SWMS in a readily available location for the duration of the high risk construction work and for at least two years after a notifiable incident occurs.
4. If high risk construction work is being carried out in connection with a construction project, the principal contractor must be provided with a copy of the SWMS before the high risk work starts.

For more information, download the SWMS information sheet at safeworkaustralia.gov.au.

Appendix C – High risk construction work safe work method statement template

NOTE: Work must be performed in accordance with this safe work method statement (SWMS).This SWMS must be kept and be available for inspection until the high risk construction work to which this SWMS relates is completed. If the SWMS is revised, all versions should be kept. If a notifiable incident occurs in relation to the high risk construction work in this SWMS, the SWMS must be kept for at least two years from the date of the notifiable incident.						
PCBU name, contact details			Principal contractor (PC)		(Name, contact details)	
Works manager: Contact phone:			Date SWMS provided to PC:			
Work activity:	[Job description]		Workplace location:			
High risk construction work:	☐	Risk of a person falling more than two metres	☐	Work on a telecommunication tower	☐	Demolition of load-bearing structure
	☐	Likely to involve disturbing asbestos	☐	Temporary load-bearing support for structural alterations or repairs	☐	Work in or near a confined space
	☐	Work in or near a shaft or trench deeper than 1.5 m or a tunnel	☐	Use of explosives	☐	Work on or near pressurised gas mains or piping
	☐	Work on or near chemical, fuel or refrigerant lines	☐	Work on or near energised electrical installations or services	☐	Work in an area that may have contaminated or flammable atmosphere
	☐	Tilt-up or precast concrete elements	☐	Work on, in or adjacent to a road, railway, shipping lane or other traffic corridor in use by traffic other than pedestrians	☐	Work in an area with movement of powered mobile plant
	☐	Work in areas with artificial extremes of temperature	☐	Work in or near water or other liquid that involves a risk of drowning	☐	Diving work
Person responsible for ensuring compliance with SWMS:			Date SWMS received:			
What measures are in place to ensure compli with the SWMS?						
Person responsible for reviewing SWMS control measures:			Date SWMS received by reviewer:			
How will the SWMS control measures be reviewed?						
Review date:			Reviewer's signature:			

What are the tasks involved?	What are the hazards and risks?	What are the control measures?
List the work tasks in a logical order	Identify the hazards and risks that may cause harm to workers or the public	Describe what will be done to control the risk. What will you do to make the activity as safe as possible?
Name of worker(s)		Worker signature(s)
Date SWMS received by workers:		

Appendix D – Safe work method statement example

NOTE: Work must be performed in accordance with this safe work method statement (SWMS).This SWMS must be kept and be available for inspection until the high risk construction work to which this SWMS relates is completed. If the SWMS is revised, all versions should be kept. If a notifiable incident occurs in relation to the high risk construction work in this SWMS, the SWMS must be kept for at least two years from the date of the notifiable incident.					
ABC House Removals 123 Mortar Road, Standard Course QLD 4000 Ph: (07) 1234 5678			Principal contractor (PC)		Mr Jones 4 Peabody Rd, Projectville QLD 4044 Ph: (07) 9876 5432
Works manager: Contact phone:	Fred Bloggs 0400 111 111		Date SWMS provided to PC:		5 February 2015
Work activity:	House relocation		Workplace location:		14 Bell Street, Lifton QLD 4004
High risk construction work:	☑	Risk of a person falling more than two metres	☐	Work on a telecommunication tower	☐	Demolition of load-bearing structure
	☐	Likely to involve disturbing asbestos	☑	Temporary load-bearing support for structural alterations or repairs	☐	Work in or near a confined space
	☐	Work in or near a shaft or trench deeper than 1.5 m or a tunnel	☐	Use of explosives	☐	Work on or near pressurised gas mains or piping
	☐	Work on or near chemical, fuel or refrigerant lines	☑	Work on or near energised electrical installations or services	☐	Work in an area that may have contaminated or flammable atmosphere
	☐	Tilt-up or precast concrete elements	☑	Work on, in or adjacent to a road, railway, shipping lane or other traffic corridor in use by traffic other than pedestrians	☑	Work in an area with movement of powered mobile plant
	☐	Work in areas with artificial extremes of temperature	☐	Work in or near water or other liquid that involves a risk of drowning	☐	Diving work
Person responsible for ensuring compliance with SWMS:	Joe Bloggs, Leading Hand		Date SWMS received:			
What measures are in place to ensure compliance with the SWMS?	ABC House Removal's WHS policies and procedures, general and workplace induction training, toolbox meetings, SWMS provided to and discussed with worker at workplace and signed off, ongoing workplace supervision b experienced leading hand.					
Person responsible for reviewing SWMS control measures:	Fred Bloggs, Works Manager		Date SWMS received by reviewer:			
How will the SWMS control measures be reviewed?	SWMS control measures to be reviewed (and revised if necessary) if work tasks/methods change or unexpected issues arise.					
Review date:			Reviewer's signature:			

What are the tasks involved?	What are the hazards and risks?	What are the control measures?
List the work tasks in a logical order	Identify the hazards and risks that may cause harm to workers or the public	Describe what will be done to control the risk. What will you do to make the activity as safe as possible?
Use of powered mobile plant	Plant contacting overhead electric lines	Maintain exclusion zones for overhead lines
Jacking up temporary support of structure	Ground slope and soil conditions	Ground to be made level for lifting equipment
Work on roof	Brittle roof surfaces	Maintain exclusion zone around brittle roof material
Name of worker(s)		Worker signature(s)
Fred Bloggs		
Joe Bloggs		
Date SWMS received by workers:	14 February 2015	

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