

Working at Height

Shell HSSE & SP Control Framework
Personal Safety Manual

Mandatory
Restricted
Version 3, December 2009

Purpose

To prevent falls and reduce the Consequences if a fall occurs when Working At Height.

Who is this for?

- Managers
- Personnel who:
 - gain access to and work at height;
 - design, construct, put in place and/or inspect structures and equipment to facilitate work at height;
 - inspect, maintain or repair Fall Protection Equipment; and
 - plan or are involved in Emergency Response.

What situations are/are not covered?

This manual section applies to:

- work at height from which workers can fall 6 feet or 1.8 metres or more from where they stand or sit to perform work, this includes potential falls to lower levels;
- gaining access to the work at height; and
- Employees and Contractors.

This manual section does not apply to:

- buildings having facilities that are designed to take into account Working At Height, for example stairways and walkways with handrails.

The following special situations of Working At Height are handled differently:

- Helicopter access work, rope access work, or steeplejack work is done by specialists who have specific skills, Procedures, equipment and rescue plans to manage the Risk of Working At Height.
- The movement of people between marine vessels or between marine vessels and facilities present some unique and variable situations. For such operations, consult the Regional Marine Manager for help in developing and implementing control measures to manage the Risk of Working At Height.

Requirements

The Manager is Accountable for requirements 1, 2 and 4.

Personnel who design, construct, put in place and/or inspect, structures and equipment to facilitate work at height are Responsible for requirement 3.

- 1. Determine whether the work can be done in a way that better controls the Risk of a fall by applying the following Hierarchy Of Controls. Beginning with the first Control, assess each in turn to select a Control that is reasonably practicable for the task:**

First: Eliminate the work at height.

Second: Work from a permanent work platform with guardrails and toe boards.

Third: Work from a temporary work platform (scaffold) or mobile work platform with guardrails. Consider the Hazards of installing, operating or maintaining the work platform when deciding whether it is reasonably practicable.

Fourth: Use personal fall-protection equipment.

- 2. Assure the competence of personnel responsible for the following work:**

- inspect fall protection equipment;
 - use of fall protection equipment; and
 - construct, put in place, or inspect temporary work platforms.
- 3. Build, operate, inspect and maintain scaffolds, mobile work platforms and equipment for lifting people (e.g. winches, basket transfer equipment) in line with Internationally Recognised Standards.**
- 3.1. Whenever possible, build ladders within the structure of multilevel scaffolds to minimise the potential fall distance.
 - 3.2. When it is not possible to build a ladder within the scaffold, and the potential fall distance is greater than 20 feet or 6.1 metres, use a ladder-climbing device such as an inertia reel fall arrestor.
- 4. Chain or rope ladders are prohibited unless all other means of accessing the work area have been considered and are not possible.**
- 4.1. If a chain or rope ladder is used, also use an inertia reel fall arrestor.

Personnel who inspect, maintain or repair Fall Protection Equipment are Responsible for requirement 5.

- 5. A competent person must also do a periodic inspection in line with the manufacturer's recommendations.**
- 5.1. Fall protection equipment and ladders that fail inspection must not be used.

Personnel who gain access to and work at height are Responsible for requirement 6.

- 6. Tie off 100% of the time when wearing personal fall protection equipment.**
- 6.1. Tie off includes moving to and from the work height, and when working within 6 feet or 1.8 metres of a roof edge or work platform without a guardrail.
 - 6.2. Visually inspect Fall Protection Equipment before each use. Tie off personal fall protection equipment to a stable and acceptable tie off point, using a fit-for-purpose harness and lanyard.
 - 6.2.1. Local procedures or instructions must describe stable and acceptable tie off points and how this information will be communicated to workers who need to know.
 - 6.3. The following fall protection requirements apply to the use of ladders:
 - Visually inspect ladders before each use
 - Fall protection is not needed when climbing up or down ladders less than 20 feet or 6.1 metres, using three points of contact.
 - Use a ladder climbing safety device, such as an inertial reel fall arrestor, when climbing up or down uncaged ladders 20 feet or 6.1 metres or longer.

Personnel who plan or are involved in Emergency Response are Responsible for requirement 7.

- 7. Determine the method(s) that will be used to rescue people who have fallen, are suspended in a harness and could develop suspension trauma.**

Implementation Strategy

Businesses must now implement requirements of this manual section as soon as practicable, with risk-based prioritisation against other activities.

Gap assessment and closure plan: Developed by the Businesses
Latest date: December 31, 2009

Requirements into effect: Developed by the Businesses
Latest date: December 31, 2012

Assurance Protocol

Requirement in manual section	Key Words	Survey Questions	Field Observations & Document, Testing
<p>Purpose To prevent falls from height and reduce the Consequences if a fall occurs when Working at Height.</p> <p>Who is this for?</p> <ul style="list-style-type: none"> • Managers; and • personnel who: <ul style="list-style-type: none"> ○ gain access to and work at height; ○ design, construct, put in place and/or inspect structures and equipment to facilitate work at height; ○ inspect, maintain or repair Fall Protection Equipment; and ○ plan or are involved in Emergency Response. <p>What situations are/are not covered? This manual section applies to:</p> <ul style="list-style-type: none"> • work at height from which workers can fall 6 feet or 1.8 metres or more from where they stand or sit to perform work; this includes potential falls to lower levels; • gaining access to the work at height; and • employees and contractors. <p>This manual section does</p>	<p>Working at Height Communication of limits from 6' or 1.8m Normal, abnormal operations Design Legislation Specialist situations Marine vessel and facilities Regional Marine Managers</p>	<p>What, if any, operational activities are outside of your Working at Height requirements? Where and how have the HSSE Risks in these activities been identified, assessed and Controls agreed? How do you ensure that such Controls and activities are managed to agreed standards?</p>	<p>Hazard inventories Risk Assessments Legislation Job Safety Analysis (JSA) PTW Equipment manuals Equipment standards Local Procedures</p>

<p>not apply to:</p> <ul style="list-style-type: none"> • buildings having facilities that are designed to take into account Working at Height, for example stairways and walkways with handrails. <p>The following special situations of Working at Height are handled differently:</p> <ul style="list-style-type: none"> • Helicopter access work, rope access work, or steeplejack work is done by specialists who have specific skills, Procedures, equipment and rescue Plans to manage the Risk of Working at Height. • The movement of people between marine vessels or between marine vessels and facilities present some unique and variable situations. For such operations, consult the Regional Marine Manager for help in developing and implementing control measures to manage the Risk of Working at Height. 			
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The Manager is Accountable for requirements 1, 2 and 4. Personnel who design, construct, put in place and/or inspect, structures and equipment to facilitate work at height are Responsible for requirement 3.

Requirement in manual section	Key Words	Survey Questions	Field Observations & Documentation, Testing
<p>1. Determine whether the work can be done in a way that better</p>		<p>Is there a Hierarchy of Controls applied to reduce Risks? If so,</p>	<p>Risk Assessment JSA PTW</p>

<p>controls the Risk of a fall by applying the following Hierarchy of Controls. Beginning with the first Control, assess each in turn to select a Control that is Reasonably Practicable for the task:</p> <p>First: Eliminate the work at height.</p> <p>Second: Work from a permanent work platform with guardrails and toe boards.</p> <p>Third: Work from a temporary work platform (scaffold) or Mobile Work Platform with guardrails. Consider the Hazards of installing, operating or maintaining the work platform when deciding whether it is Reasonably Practicable.</p> <p>Fourth: Use personal Fall Protection Equipment.</p>		<p>what is it? How do you confirm that the Hierarchy of Controls has been fully applied to any situation with a Risk of falling?</p>	<p>Work instructions</p>
<p>2. Assure the competence of personnel Responsible for the following work:</p> <ul style="list-style-type: none"> ○ inspect Fall Protection Equipment; ○ use of Fall Protection Equipment; and ○ construct, put in place, or inspect temporary work platforms. 	<p>Competency</p>	<p>What competency requirements are defined for persons who supervise, operate / use and inspect temporary platforms and Fall Protection Equipment? How do you know that the personnel Responsible for this activity are competent?</p>	<p>Competence standards Training records Legislation</p>
<p>3. Build, operate, inspect and maintain scaffolds, Mobile Work Platforms and equipment for lifting people (e.g. winches, basket transfer equipment) in line with Internationally Recognised Standards:</p> <p>3.1. Whenever possible, build ladders within</p>	<p>Standards Operation Maintenance Inspection</p>	<p>What are the legal requirements, international standards and / or Controls (such as manufacturers' instructions) that you must comply with for scaffolds, mobile platforms and personnel lifting equipment? How do you confirm</p>	<p>In-country legal requirements Standards for equipment Manufacturer manuals Minutes of meetings Toolbox talks Training sessions / records Equipment checks</p>

<p>the structure of multilevel scaffolds to minimise the potential fall distance.</p> <p>3.2. When it is not possible to build a ladder within the scaffold, and the potential fall distance is greater than 20 feet or 6.1 metres, use a ladder-climbing device such as an inertia reel fall arrestor.</p>		<p>that your personnel (including Contractors) know and comply with such requirements? Have any specific ladder requirements been set? If so, what are they and how have they been communicated to those who carry out the work?</p>	
<p>4. Chain or rope ladders are prohibited unless all other means of accessing the work area have been considered and are not possible.</p> <p>4.1. If a chain or rope ladder is used, also use an inertia reel fall arrestor.</p>	<p>Use chain and rope ladders</p>	<p>Do you ever use rope or chain ladders in operations? If so, who is Responsible for authorising the use of chain or rope ladders and the associated PTWs? What additional Controls do you require if such ladders are used?</p>	<p>Risk Assessments Equipment certificates Permit to Work</p>

Personnel who inspect, maintain or repair Fall Protection Equipment are Responsible for requirement 5.

Requirement in manual section	Key Words	Survey Questions	Field Observations & Documentation, Testing
<p>5. A competent person must also do a periodic Inspection in line with the manufacturer's recommendations.</p> <p>5.1. Fall protection equipment and ladders that fail Inspection must not be used.</p>	<p>Inspection</p>	<p>What Inspection requirements are in place for Fall Protection Equipment and ladders? What competence criteria are set for those Inspections? How do you know these are complied with? What happens if a piece of equipment fails its Inspection?</p>	<p>Inspection routines Inspection logs Equipment certificates Equipment tags Manufacturer manuals / routines Competence requirements Training records</p>

Personnel who gain access to and work at height are Responsible for requirement 6.

Requirement in manual section	Key Words	Survey Questions	Field Observations & Documentation, Testing
<p>6. Tie off 100% of the time when wearing personal Fall Protection Equipment.</p> <p>6.1. Tie off includes moving to and from the work height, and when working within 6 feet or 1.8 metres of a roof edge or work platform without a guardrail.</p> <p>6.2. Visually inspect Fall Protection Equipment before each use. Tie off personal Fall Protection Equipment to a stable and acceptable tie off point, using a fit-for-purpose harness and lanyard.</p> <p>6.2.1. Local Procedures or instructions must describe stable and acceptable tie off points and how this information will be communicated to workers who need to know.</p> <p>6.3. The following fall protection requirements apply to the use of ladders.</p> <ul style="list-style-type: none"> ▪ Visually inspect ladders before each use. ▪ Fall protection is not needed when climbing up or down ladders less than 20 feet or 6.1 metres, using three points of contact. ▪ Use a ladder 	<p>100% tie off Limits? Three points of contact Uncaged ladders</p>	<p>How is work planned to provide for 100% tie off, what limits do you place on 100% tie off, and how is Compliance with these requirements verified? Where and how are the Controls for the use of Fall Protection Equipment documented, communicated and applied? How are tie-off points determined? How do you ensure lanyards and harnesses are fit for purpose? How do you ensure requirements are not exceeded for fall protection whilst climbing ladders?</p>	<p>JSA Work instructions Equipment training sessions Toolbox talks PTW Inspection logs and certificates for lanyards and harnesses</p>

climbing safety device, such as an inertia reel fall arrestor, when climbing up or down uncaged ladders 20 feet or 6.1 metres or longer.			
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Personnel who plan or are involved in Emergency Response are Responsible for requirement 7.

Requirement in manual section	Key Words	Survey Questions	Field Observations & Documentation, Testing
7. Determine the method(s) that will be used to rescue people who have fallen, are suspended in a harness and could develop Suspension Trauma.	Rescue from height	What rescue Plans and emergency exercises have been defined for people suspended in harnesses, incapacitated whilst Working at Height, or suspended in lifting equipment? Have these Plans been subject to drills and review by a competent person?	Rescue from height Emergency Response Plans and record of drills