

INTRODUCTION AND OVERVIEW

This is a practical course during which delegates will recover a casualty hanging in suspension (a Rescue Dummy) who as an unconscious casualty may have as little as 10 minutes to survive in this position.

WORK AT HEIGHT REGULATIONS.

The Work at Height Regulations 2005 (amended in 2007) stipulate employers must have a plan in place for emergencies and rescue when working at height, assuming that the emergency services cannot be relied upon to provide immediate response.



LEGAL RESPONSIBILITIES

EMPLOYER RESPONSIBILITIES

Provide and explain RAMS describing the task and any risks to employees involved in doing this work.

To plan work at height using the measures outlined in the hierarchy of controls.

Assess if this work be carried out on the ground or in a safe place to avoid working at height ?

Ensure that every employee that will be working at height is competent by providing the appropriate health and safety training for the task.

It is important that the correct equipment is chosen, that it is well maintained properly and functioning correctly.

Appropriate equipment should be provided to the employees, including Temporary Edge Protection, Podiums, Access Stairs, Personal Fall Protection Systems and Rescue Equipment.

EMPLOYEE RESPONSIBILITIES

It is important for the employee to take responsibility for their own and their colleagues safety.

To understand how to follow and implement the work at height, hierarchy of controls.

Never take on a task that you are not trained or qualified to do, let your employer know.

If your employer asks you to work in an unsafe way or contravenes health and safety regulations, you have the right to challenge them and refuse to do the work.

Resist the temptation to cut corners and save time by not following safe working procedures.

It's often the "quick-fix" job that leads to an accident. Think about how a serious injury that could affect you (and your family) for the rest of your life.

Make sure that you get enough sleep and that you don't indulge in drugs or alcohol before working at heights. Sleep deprivation and intoxication can affect your balance and make you more likely to fall, not to mention the risk of losing your job if you are working under the influence.

ENVIRONMENT FAMILIARISATION

Trainees are encouraged to discuss the structure and scope of work and are asked if they have concerns about any part of the structure that may have a greater degree of danger.

There may have been a recent accident, near miss or a reported concern from an operative that can add personal experience into this initial conversation.

The circumstances of a Fallen colleague are considered and how a rescue would be attempted.

How would other operatives be called to assist in a rescue ?

Where is the Rescue Kit kept ?

Where are the nearest Rescue Trained operatives ?

PERSONAL FALL PROTECTION EQUIPMENT



PRE-USE INSPECTION

Personal fall protection equipment is selected , this will include Harnesses, Lanyards, Karabiners, Connectors and Rescue equipment. These are checked for compliancy and their compatibility when connected as a system.

All Personal Fall Protection Component's should be inspected before use and should carry a label with a serial number and conformity code.

The Trainer will demonstrate how to ensure that your Personal Safety Equipment is safe to use by carrying out a pre-use inspection followed by an Inspection and familiarisation of Rescue Equipment consisting of

Rescue Ladder

Rescue Kit with Telescopic Pole and Rescue Winch
Slings & Anchors

DELEGATE COMPETENCE

Delegates are split into teams of 2 or 3. Their familiarity and level of competence when wearing Personal Fall Protection Equipment is measured.

When the trainer is satisfied that the trainees have the experience and level of competence for rescue training they can progress to this course.

ANCHOR POINTS FOR RESCUE

The Faller will be suspended by a connecting device- Retractable fall arrestor or Lanyard.

Rescuers also need to take safety measures to prevent them from falling whilst attempting the rescue so its essential that the rescuer knows which equipment to use.

A suitable Anchor point must be found for the Rescuers and the Rescue Device.



Slings around rebar



Slings around columns



Post –Drilled Anchors

RESCUE COMPONENTS



A Rescue Kit is a controlled descent device with automatic speed regulated lifting facility.

It is secured to a suitable anchor point before an integral crank handle is activated to disengage the automatic lower off, and by turning the handle the lifting facility is gained. Its brakes are controlled by centrifugal forces which maintain a constant descent speed.

A telescopic Pole has a profile at its end that holds a hook in the open position to connect at range to the Fallers safety harness.

The casualty is raised up to the original work area or just raised sufficiently to release the Fallers fall arrest device or Lanyard before re-engaging the automatic function to lower the casualty.

FALLS FROM HEIGHT BELOW 3.5 METRES.

This could be a fall from a Support System
And the faller may be connected to an Alsipercha.

RESCUE RECOVERY DECISIONS

There will be factors that will determine the way the faller will be rescued.

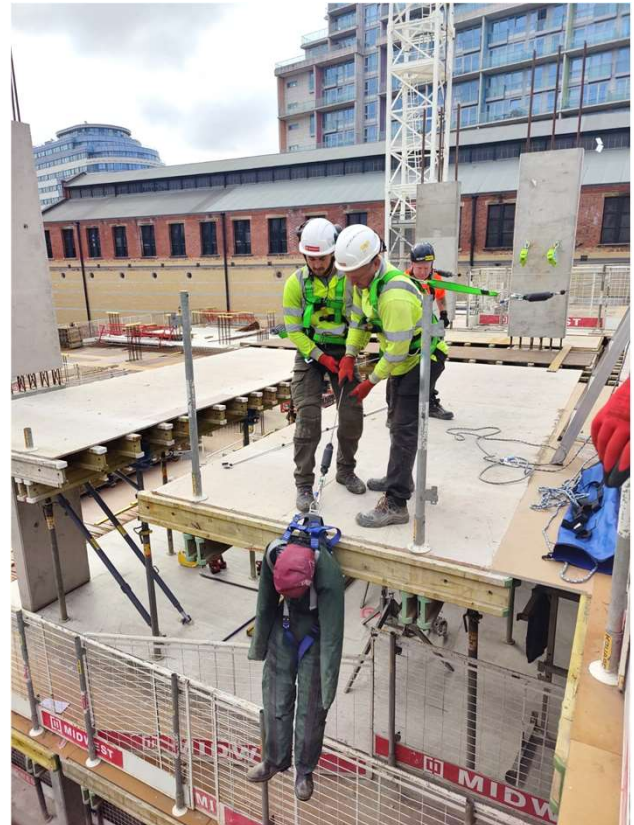
IS THE FALLER CONSCIOUS ?

If the Faller is conscious and has mobility- he may be able to climb back onto the Support System.

A colleague can grab the faller by his harness and pull him back onto the Support System.

Can an operative from the level below support the body weight of the suspended faller by holding and lifting to reduce harness tightening on his groin.

Can a MEWP or Access Tower be brought to the Faller where his lanyard / Fall Arrestor can be removed and he can be safely brought down to a recovery place.



The Dummy is rescued in the following sequence by each delegate.

Manually lift the dummy- this will take at least 2 x delegates.

Hoist the Dummy up using the Rescue kit.

Lower the Dummy to a lower level if the Rescue rope is long enough to reach a safe place.

FALLS FROM HEIGHT ABOVE 3 .5 METRES.

This could be a fall from a partially built Falsework System, a decked-out support system or a concrete deck.

The Rescue dummy is attached to the Personal Fall Protection System being used to build the structure.

This could be an Alsipercha or Temporary Work Restraint System consisting of a horizontal lifeline connected to Anchor Slings.

The Rescue Dummy is let out of the structure by two trainees.

Using the Rescue Dummy, ask each trainee to use the Rescue Pole from a distance of 3 metres to practise connecting a karabiner to the Dummy's harness attachment point.

**ATTEMPTING THE RESCUE**

Where can I seek the help of other rescue trained operatives ?

If the Faller is conscious and has mobility- he may be able to climb back onto the floor or onto a Rescue Ladder

Even if he cannot climb the ladder to safety- it will relieve the pressure from his safety harness on his groin area if he can stand on one of the rungs.

Is the faller visibly injured ?

If NO can he describe his injuries ?

How can I keep the rescuers safe ? What Do we have available for Anchorage. Is the Rescue Kit close to the Faller ?

Will the Rescue Ladder help the faller ? Can this be deployed immediately to

1 allow the faller to climb to safety or climb onto a rung to relieve suspension symptoms.

2 allow a rescuer to check the faller and possibly attach a rescue lanyard to his harness connector ?

If the faller is below the reach of the Rescue Ladder or / and unconscious

Manually lift him back into the structure

Hoist him back into the structure

Lower him to the ground or onto an elevated platform.



SUSPENSION TRAUMA

After a worker falls and is caught by his fall Safety harness, the danger is not over. The fallen worker's blood circulation is restricted, causing a condition known as suspension trauma.



WHAT IS SUSPENSION TRAUMA ?

Suspension trauma, also known as harness hang syndrome and orthostatic intolerance, occurs after a worker has fallen into a fall arrest harness and is suspended in a hanging position until rescue arrives.

When hanging in a safety harness, leg straps support the body's weight crushing the femoral arteries on the inside of the legs, cutting off blood circulation.

When the leg muscles are relaxed, veins in the legs can expand dramatically (known as vasodilation). Because the leg muscles are not being used to stand up, they are not contracting and therefore not preventing the veins from expanding. This lack of constriction from the leg muscles allows blood to gather in the legs rather than returning to the heart and lungs for recirculation, an effect known as venous pooling. Without constraint from the leg muscles, the expansion of blood veins in the legs can result in a 20 percent loss in blood circulation.

POTENTIAL CONSEQUENCES OF SUSPENSION TRAUMA

It has been identified that suspension trauma can be fatal within 30 minutes of the initial fall which makes your Rescue plan crucial to the safe recovery of the casualty.

This Plan needs to take consideration of the differences in the structure's elevations, heights and hazards, no two fall scenes could be the same and need the same type of rescue.

TRAINING SUMMARY

SafetyRespect UK Ltd. Would like to thank you for trusting us to deliver your safety critical training.

The only outcome we consider successful is where your colleagues work safely with raised awareness of potential fall hazards, an improved understanding of Personal Fall Protection Equipment and the knowledge to contribute to Safety Planning.

We value and will appreciate your feedback relative to the content we have delivered to your colleagues during this course. We will act on your suggestions.

Please contact me terry.gardner@safetyrespect.co.uk or call me 07860 111212

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