Accident Advisory: Worker Died After Falling from Height
Ref: 1516116, WSH Alert accident notification dated 28 January 2016

On 22 Jan 2016, a worker fell to his death from a height of about 8.8 meters above the ground. He was installing roofing zinc sheets with a co-worker and was standing on a partially completed roof of a storage shelter that was being constructed within a worksite. He fell through a gap in the roof, landed on the concrete floor below and was subsequently pronounced dead at the scene.

Figure: Overview of the accident site

Recommendations*

Any work on a roof is high risk as it involves working at height. High safety standards are essential and should not be compromised on account of the duration of work. Persons in control of similar workplaces and work activities such as occupiers and employers are advised to consider the following risk control measures to prevent similar accidents:

Fall Prevention Plan
• Develop and implement a fall prevention plan that is specific to the work site.

Access and Egress to Work Area
• Provide safe means of access to and egress from the roof so that employees are able to reach their work area safely. For example, the use of a mobile elevating work platform (MEWP).
Work Platform
• Provide a stable and secure work platform for employees to stand on for their work (e.g. scaffold or MEWP). This is essential for roof works as workers could be standing on uncompleted roof structures or fragile roof materials not designed to take their weight.

Travel restraint system
• Ensure that employees use a travel restraint system to restrict their travelling range and prevent them from falling off edges.
• Provide a secure anchorage point for the employee to attach his travel restraint equipment.

Fall arrest system
• Implement a fall arrest system with energy absorbers to reduce the impact in the event of a fall.
• Provide a secure anchorage point for the employee to attach his safety harness.
• Consider the fall clearance height required before deploying a fall arrest system to ensure its effectiveness.

Note: Fall clearance height is the combined length of the lanyard, sag in life line, full extension of the shock absorber, height of the worker and safety distance from the ground (at least 1m).

Worker training
• Inform employees on the fall hazards associated with their work.
• Ensure that employees understand the control measures implemented.
• Train employees on the proper use and maintenance of their safety equipment.

Risk Assessment
Review and conduct a thorough Risk Assessment (RA) for all work at height activities to manage any foreseeable risk. Hazards and control measures identified should be communicated to all relevant personnel. The RA should cover but not limited to the following areas:
• Working near openings and open sides
  Assess if there is any work that needs to be carried out at or near openings and edges without adequate protection and identify control measures to be taken. Consider the use of a MEWP to access the required height.
• Supervision at work area
  Ensure that there is adequate supervision when carrying out works at height. Regularly inspect the work area for any safety lapses and ensure that employees adhere to the safe work procedures.

Permit-to-work
Please note that on or after 1 May 2014, as set out in Part III of the Workplace Safety and Health (Work at Heights) Regulations 2013, the implementation of a permit-to-work system is required for any hazardous work at height carried out at a workplace.
Further Information

Workplace Safety and Health Act
Workplace Safety and Health (General Provisions) Regulations
Workplace Safety and Health (Risk Management) Regulations
Workplace Safety and Health (Work at Heights) Regulations 2013
Workplace Safety and Health (Construction) Regulations 2007
Workplace Safety and Health (Scaffolds) Regulations 2011
Approved Code of Practice on Workplace Safety and Health Risk Management
Approved Code of Practice on Working Safely at Heights
Workplace Safety and Health Guidelines on Personal Protective Equipment for Work at Heights
Work At Heights Toolkit for Supervisors
Working Safely at Heights checklist
SS 528: Specification for Personal fall-arrest systems. Part 2: Lanyards and energy absorbers. 2006
SS 528: Specification for Personal fall-arrest systems. Part 4: Vertical rails and vertical lifelines incorporating a sliding-type fall arrester. 2006
SS 528: Specification for Personal fall-arrest systems. Part 6: System performance tests
SS 570: Specification for Personal protective equipment for protection against falls from a height — Single point anchor devices and flexible horizontal lifeline systems
SS 607: Specification for design of active fall-protection systems. 2015

*Information on the accident is based on preliminary investigations by the Ministry of Manpower as at 18 April 2016. This may be subject to change as investigations are still on-going. Please note that the information provided here is not exhaustive and for the benefit of enhancing workplace safety and health so that a recurrence may be prevented. The information provided is not to be construed as implying any liability to any party nor should it be taken to encapsulate all the responsibilities and obligations under the law.

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