

# IRATA Safety Bulletin No. 42



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## SAFETY BULLETIN NO. 42: FALLING OR DROPPED OBJECTS

A safety bulletin aimed at raising awareness of hazards in the rope access industry. The text may be of used as part of a toolbox talk.

### 1 INTRODUCTION

- 1.1 'Falling or dropped objects' is one of three consistently significant areas of concern for rope access technicians. Incidents occur as a result of:
- Objects being dislodged (Case Study 1)
  - Objects falling accidentally (Case Study 2)
  - Being struck by a falling object (Case Study 3)
  - Lack of a risk assessment (Case Study 4)
  - Objects being dropped (Case Study 5)

### 2 WHAT CAN GO WRONG ...

- 2.1 The following are examples of things that have gone wrong:

<p><b>Case Study 1</b> Object dislodged</p>
<p>A L2 technician was approximately 1 m under an edge, descending to the work site. With his feet he pushed on the topside of the window. The windows were such that it can be pushed open from the inside at the bottom; the top thus turning inwards. Not knowing this, and added to the fact that the device normally holding the window open was broken and had been replaced by the owner of the house with a 1 kg dumbbell, resulted in the fall of the dumbbell into the exclusion zone.</p>
<p>Work was stopped for the day. The operation of windows was explained in a toolbox later. The exclusion zone was made larger. The house owners were asked to check their windows before work could commence.</p>
<p><b><i>Discuss what went wrong and what you might have done differently: ...</i></b></p>

<p><b>Case Study 2</b> Object falling accidentally</p>
<p>A small part of a scraper blade fell from the top of a building whilst a rope access technician was cleaning the steel structure to remove any rust and corrosion.</p>
<p>The project coordinator initiated a toolbox talk and shared the lesson learnt. The scraper blade was removed from service and replaced by a spatula.</p>
<p><b><i>Discuss what went wrong and what you might have done differently: ...</i></b></p>

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### Case Study 3

Struck by a falling object

A L2 technician was planning to access an electrical box. Upon looking up a vessel a small concrete block (refractory) came loose from 100 feet - well above the anchor point (25 feet high) - and struck the technician in the face. The technician suffered from a small cut below the eye, underneath their safety glasses.

The client had cancelled a refractory repair scheme in order to reduce costs, due to low oil prices. Investigation by the client deemed that the technician did not inspect fully the "line of fire" above them and therefore put themselves at risk.

***Discuss what went wrong and what you might have done differently: ...***

### Case Study 4

Lack of a risk assessment

Whilst tensioning a bolt inside a wind turbine tower, from floor level and from a step ladder, the hydraulic bolt tensioner (25kg) was unstable on top of the bolt, came off and flew 2 to 3 metres; landing on the head of the other worker.

The tool was provided by the customer. The rope access company did not undertake a task-specific risk assessment of the tool; when the problem should have been noticed. The result was a 'less than 7-day' injury.

***Discuss what went wrong and what you might have done differently: ...***

### Case Study 5

Object dropped

Whilst a L2 rope access technician was busy removing lights from a building the light shade broke off and fell to the ground.

The area was cleaned and the barricaded exclusion zone was monitored. Bags were fixed around the light shades to prevent them from falling to the ground. A toolbox talk was undertaken as reminder that technicians must be vigilant when working with fragile equipment.

***Discuss what went wrong and what you might have done differently: ...***

## 3 RISK MANAGEMENT ...

3.1 The following advice outlines the risk management measures that should be considered when planning jobs.

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3.2 There is an hierarchy of controls for falling or dropped object risk management:

- Elimination;
- Engineering controls;
- Administrative controls; and
- Personal protective equipment.

## 4 ELIMINATION

4.1 Where possible, the elimination of a hazard - or avoidance - must always be the preferred option.

## 5 ENGINEERING CONTROLS

5.1 If the hazard cannot be eliminated, engineering controls are the preferred approach to risk reduction. This involves the use of equipment to reduce the potential for dropped objects (or, preferably, prevent them from being dropped), or to reduce the risk if an object does fall.

## 6 ADMINISTRATIVE CONTROLS

6.1 Administrative controls, to be used in conjunction with the other controls in the hierarchy, involve providing:

- (i) information and warnings;
- (ii) instruction on how to carry out the work safely;
- (iii) supervision to ensure that any procedures are being followed; and
- (iv) management processes to determine any 'lessons learnt'.

## 7 PERSONAL PROTECTIVE EQUIPMENT

7.1 This is the last method of protecting an employee.

7.2 Industrial safety helmets provide limited protection only, due to the high level of kinetic energy that falling and dropped objects possess. A helmet protects the head only, so other areas of the body are unprotected from dropped objects and serious injuries can easily be suffered, e.g. face.

## 8 FURTHER INFORMATION

8.1 Further information can be found in:

- (a) IRATA International code of practice for industrial rope access (<https://irata.org/downloads/2055>):
- (b) IRATA Work and Safety Analysis 2016 [www.irata.org/pdf%20downloads/WASA%202016.pdf](http://www.irata.org/pdf%20downloads/WASA%202016.pdf)
- (c) IRATA Safety and Health Topic Sheet No. 11, HS-091ENG
- (d) DROPS, <http://www.dropsonline.org/>

8.2 For a list of current (and past) 'safety communications' by IRATA, see [www.irata.org](http://www.irata.org)

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## 9 RECORD FORM

- 9.1 An example *Safety and Health Topic Sheet: Record Form* is given below. Members may have their own procedure(s) for recording briefings to technicians and others.

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IRATA SAFETY BULLETIN – RECORD FORM			
<b>Site:</b>			
<b>Date:</b>			
<b>Topic(s) for discussion:</b>	Safety Bulletin No. 42: Falling or dropped objects		
<b>Reason for talk:</b>			
<b>Start time:</b>		<b>Finish time:</b>	
<b>Attended by</b> <i>Please sign to verify understanding of briefing</i>			
<b>Print name:</b>	<b>Signature:</b>		
<i>Continue overleaf (where necessary)</i>			
<b>Matters raised by employees:</b>	<b>Action taken as a result:</b>		
<i>Continue overleaf (where necessary)</i>			
<b>Briefing leader</b> <i>I confirm I have delivered this briefing and have questioned those attending on the topic discussed.</i>			
<b>Print name:</b>		<b>Signature:</b>	<b>Date:</b>
<b>Comments:</b>			