

# Topic Sheet No. 6

## The protection of ropes



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## SAFETY AND HEALTH TOPIC SHEET NO. 6: EDGE MANAGEMENT: THE PROTECTION OF ROPES

A safety and health 'topic sheet' aimed at raising awareness of hazards in the rope access industry. The series may be of use as a toolbox talk.

### 1 INTRODUCTION

- 1.1 In rope access work it is vital to ensure that ropes<sup>1</sup> are protected with a suitable method. A hierarchical approach should be adopted in order to determine the best achievable method of protection for ropes at a worksite.

**"It is essential that precautions are taken to prevent damage to anchor lines, when they are in use. ..."**

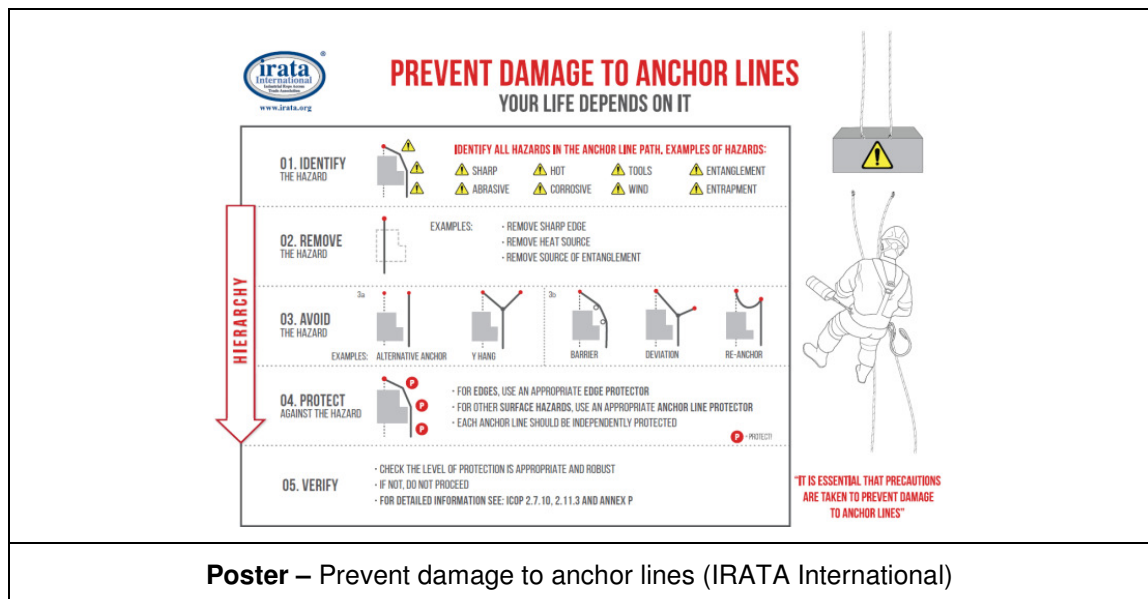
ICOP, 2.11.3.2.1

### 2 BACKGROUND...

- 2.1 Once it has been established that rope access is an appropriate access system, and the hazards have been identified, the following process should be followed:

- **R**emove (the hazard, where feasible)
- **A**void (the hazard)
- **P**rotect (against the hazard).

- 2.2 This process may be remembered by the acronym 'RAP'. This hierarchy is listed in a *decreasing* order of priority. Accordingly, the most effective and reliable edge management measures will be those at the top of the hierarchy.



<sup>1</sup> The IRATA International code of practice (ICOP) adopts the term 'anchor line' for 'rope'.

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### 3 IDENTIFY THE HAZARD ...

3.1 Examples of hazards (non-exhaustive) that should be taken into account when protecting ropes include:

- a) Sharp edges such as may be found on steelwork, cable trays, gratings, glass façades, composite panels;
- b) Abrasive edges and surfaces such as coping stones, rock protrusions, corroded structures;
- c) Trapping and cutting areas such as manhole covers, hatches, doorways;
- d) Heat sources and the risk of melting from such as hot pipes, exhaust gases, lighting;
- e) Hot work such as welding or cutting;
- f) Corrosive substances such as chemical deposits or spillages;
- g) Tools such as angle grinders, chainsaws, ultra-high-pressure lances, grit blasters, power drills.

*“Great care should be taken when choosing an anchor line protector that it is going to offer sufficient protection against the surface with which it may be in contact. It should be able to withstand use in the chosen location without wearing through or melting and exposing an anchor line to the abrasive or hot surface. Anchor line protectors used to protect against hot surfaces should be of a type intended for this purpose.”*

ICOP, 2.11.3.2.7

### 4 REMOVE THE HAZARD (WHERE FEASIBLE) ...

4.1 Examples include:

- Removing a sharp edge;
- Removing a heat source;
- Removing a source of entanglement.

### 5 AVOID THE HAZARD ...

5.1 Examples include:

- An alternative anchor;
- A y-hang;
- The provision of a barrier;
- Introducing a deviation;
- Using a re-anchor.

### 6 PROTECT AGAINST THE HAZARD ...

6.1 Examples include:

- For edges, using an appropriate edge protector;
- For other surface hazards, use an appropriate rope protection;
- Each rope should be independently protected.

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### 7 ACTION

7.1 Review your management system's procedures for the protection of ropes.

### 8 REFERENCES

8.1 Further information can be found in:

- (a) IRATA International code of practice for industrial rope access (Third edition)<sup>2</sup>:
  - Part 2, 2.7.10, Protectors for anchor line
  - Part 2, 2.11.3, Use of anchor lines
  - Part 3, Annex P, Recommended actions for the protection of anchor lines
- (b) Training, Assessment and Certification Scheme (TACS) for personnel engaged in industrial rope access methods (Edition 3.1, October 2015)<sup>3</sup>
  - 6.2.3.2.2, Hazard identification and risk assessment
  - 6.4.1, Rigging
  - 6.4.6, Hazard avoidance and rope protection
  - 6.4.8, Deviations
  - 6.6.12, Edge obstructions at the top

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

### 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.

### 10 FURTHER READING

IRATA:

- Video
- Toolbox talk
- Poster, [www.irata.org/show\\_doc.php?doc\\_id=5109](http://www.irata.org/show_doc.php?doc_id=5109)

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<sup>2</sup> [www.irata.org/default.php?cmd=215&doc\\_id=4336](http://www.irata.org/default.php?cmd=215&doc_id=4336)

<sup>3</sup> [www.irata.org/default.php?cmd=215&doc\\_id=4193](http://www.irata.org/default.php?cmd=215&doc_id=4193)

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### IRATA SAFETY AND HEALTH TOPIC SHEET – RECORD FORM

<b>Site:</b>	
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<b>Date:</b>	
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<b>Topic(s) for discussion:</b>	Topic Sheet No. 6 The protection of ropes
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<b>Reason for talk:</b>	
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<b>Start time:</b>		<b>Finish time:</b>	
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**Attended by**  
*Please sign to verify understanding of briefing*

<b>Print name:</b>	<b>Signature:</b>
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*Continue overleaf (where necessary)*

<b>Matters raised by employees:</b>	<b>Action taken as a result:</b>
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*Continue overleaf (where necessary)*

**Briefing leader**

*I confirm I have delivered this briefing and have questioned those attending on the topic discussed.*

<b>Print name:</b>		<b>Signature:</b>		<b>Date:</b>	
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<b>Comments:</b>	
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