A safety bulletin prepared by © IRATA International (2017)

SAFETY BULLETIN NO. 43: EYE PROTECTION

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 Employers have duties concerning the provision and use of personal protective equipment (PPE) at work. PPE is equipment that will protect the user against health or safety risks at work. It includes eye protection.

1.2 PPE is "a last resort". Even where engineering controls and safe systems of work have been applied, some hazards might remain. These include injuries to the eyes, e.g. from flying particles or splashes of corrosive liquids. PPE is needed in this case to reduce the risk.

2 WHAT CAN GO WRONG …

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

Case Study 1 Cut below safety glasses
Technician was planning to access an electrical box. Upon looking upwards at a vessel a small concrete block (refractory) came loose [approximately 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, under the technician's 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 fully inspect 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 2 Particle blown into eye
Whilst busy with surface preparation, a gust of wind blew rust particles into the technician's eye.
First aid treatment was administered. Employees performing surface preparation to wear goggles and not safety glasses
Discuss what went wrong and what you might have done differently: …

Case Study 3 Particle blown into eye
Employee was walking over a link bridge when he was hit by a strong gust of wind and felt something enter his left eye. He washed out what he perceived to be a bit of dirt. That evening, he awoke early feeling a lit bit of discomfort. He decided then to seek medical assistance. A medic examined the eye and applied some eye drops.
The technician was able to return to work the next day. Irritation eased as the day went on and it did not affect his work. All procedures were correctly followed. The team leader took the opportunity to discuss dust down procedures and the use of safety glasses, at the subsequent morning briefing.
Discuss what went wrong and what you might have done differently: …

Case Study 4 Particle blown into eye from adjacent work
A technician was injured when a particle became lodged in his eye. A medic was unable to remove it. The technician required onshore medical treatment.
Awareness of risks caused by nearby activities is as important as awareness of risks from your own activities.
Discuss what went wrong and what you might have done differently: …

3 HAZARDS

3.1 Damage to eyes may occur as a result of chemical or metal splash; dust; projectiles; gas and vapour; and/or radiation. More commonly:

(a) **Impact hazards**
- These are caused by fast moving particles, e.g. chipping, grinding, cutting, broken tools, grinding wheels. The potential impact speed must be assessed when selecting the most appropriate grade of eye protection. If safety glasses could be dislodged then goggles or a face shield might be more appropriate. Consider double eye protection when grinding, cutting, etc.

(b) **Chemical splash**
- Chemical splash and vapours can strike a technical from all sides. Accordingly, full eye enclosure is important, e.g. unvented goggles. A full face shield may be appropriate in protecting the whole face from splashes of liquids. Where there is a danger of splash deflecting up from a work surface a chin guard may be required.

(c) **High-speed flying articles**
- High-speed flying particles may enter the eye, often indirectly. In extreme conditions, a full face shield offers the maximum protection. Full face shields offer a wide area of protection; and as a result of all round ventilation they remain mist free even in wide temperature ranges.

4 SELECTION AND USE

4.1 When planning work, you should ask yourself who is exposed and to what. Make sure that the eye protection chosen (e.g. safety spectacles, goggles, face screens, face shields, visors, etc.) has the right combination of impact, dust, splash, molten metal eye protection for the task and fits the user properly.

4.2 Select products that meet a recognised standard. Some countries will have specific requirements, e.g. CE marking in the European Union.

4.3 Choose equipment that suits the user properly. Consider the size, fit and weight. If technicians help choose the eye protection, they will be more likely to use it.

4.4 If more than one item of PPE is worn at the same time then make sure they are compatible and can be used together, e.g. wearing safety glasses may disturb the seal of a respirator, causing air leaks.

4.5 Instruct and train technicians on how to use any eye protection. Communicate with them on why it is needed, when to use it and what its limitations are. They must also know how to detect and report any faults.

4.6 Check with your supplier on which eye protection is most appropriate. Explain the job to them. If in doubt, seek further advice from a specialist adviser.

4.7 Ensure that employees have read and understand the relevant safety data sheet – and consequential assessment - for any hazardous substance(s) being used.

4.8 An employer should provide instructions, procedures, training and supervision to encourage people to work safely and responsibly. Do not allow exemptions from wearing eye protection for those jobs that, “only take a few minutes”.

4.9 Report all injuries immediately they occur. Do not wait until the following day.

5 MAINTENANCE

5.1 Eye protection must be properly looked after and stored when not in use, e.g. in a dry, clean environment. It must be cleaned appropriately and kept in good condition.

6 MONITOR AND REVIEW

6.1 Other points to remember are:

- Check regularly that eye protection is being used. If it isn’t, find out why not.
- Safety signs can be a useful reminder that eye protection should be worn.
- Take note of any changes in equipment, materials and task; you may need to update the eye protection that you provide.
- Technicians must make proper use of eye protection and report its loss or destruction or any fault in it.

7 FURTHER INFORMATION

7.1 Further information can be found in:

(a) IRATA International code of practice for industrial rope access https://irata.org/downloads/2055:

- Part 2, 2.7.14.5 (b)

(b) IRATA Work and Safety Analysis 2016, https://irata.org/downloads/2054

7.2 For a list of current (and past) 'safety communications' by IRATA, see www.irata.org

8 RECORD FORM

8.1 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.

IRATA SAFETY BULLETIN – RECORD FORM			
Site:			
Date:			
Topic(s) for discussion:		Safety Bulletin No. 43: Eye protection	
Reason for talk:			
Start time:		**Finish time:**	
Attended by *Please sign to verify understanding of briefing*			
Print name:		**Signature:**	
Continue overleaf (where necessary)			
Matters raised by employees:		**Action taken as a result:**	
Continue overleaf (where necessary)			
Briefing leader *I confirm I have delivered this briefing and have questioned those attending on the topic discussed.*			
Print name:		**Signature:**	**Date:**
Comments:			