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STONE INDUSTRY SAFETY SERVICES

34.0 MIA Safety Services - February 2014

Executive Summary

Thousands of people are blinded each year from work-related eye injuries that could have been prevented with the proper selection and use of eye and face protection. Eye injuries alone cost more than $300 million per year in lost production time, medical expenses, and worker compensation.

The purpose of this Toolbox Talk is to raise awareness among workers and employers about the hazards faced every day in the stone industry.

Two toolbox talks are enclosed: one reviewing an investigation from OSHA files and another reviewing the various types of PPE when impact hazards are present. Also provided are a standard employee meeting sign-in sheet and a safety related "Product of the Month" feature.

Enclosed in this issue of MIA Safety Talks are the following resources:

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34.1 MIA Safety Services - OSHA Accident Summary

Refer to sign-in sheet for attendees (note: a separate meeting should be held with all absent employees).

Agenda

Inspection Type:	Accident
Type of Operation:	Cut Stone & Stone Products
Size of Work Crew:	4
Safety Monitor on Site:	Yes
Safety & Health Program:	Yes
Regular Worksite Inspections:	Yes
Training Provided:	Yes
On the Job Experience:	7 yrs.

Brief Description of Accident

At approximately 2:30 p.m., Employee #1 was using a pneumatic water/air polisher on a piece of granite. The flexible diamond disc fractured and a piece struck his left eye. Employee #1 was hospitalized for treatment, and the eye was later removed surgically.

Inspection Results

The employer failed to ensure that each affected employee used appropriate eye or face protection when exposed to eye or face hazards from flying particles [1910.133(a)(1)]. Furthermore, the employer failed in his responsibility for the safe condition of tools and equipment used by employees, including tools and equipment which may be furnished by employees [1910.242(a)].

Accident Prevention Recommendations

- Train maintenance and operating personnel to recognize potential problems when working with power hand tools.
- Have competent persons perform periodic inspections of all operating equipment and PPE.

Recap & Review

- Has anyone seen or experienced a similar situation?
- What happened?

Reminder: Safety is the responsibility of both management and employees!
The next safety meeting is scheduled for _____ and the topic will be_____.

NOTE: This case was selected as being representative of injuries caused by improper work practices. No special emphasis or priority is implied nor is the case necessarily a recent occurrence. The legal aspects of the incident have been resolved, and the case is now closed.

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34.2 MIA Safety Services - PPE Selection for Eyes and Face

Refer to sign-in sheet for attendees (note: a separate meeting should be held with all absent employees).

Agenda

1. **Overview:** Are you in danger of becoming a statistic? Thousands of people are blinded each year from work-related eye injuries that could have been prevented with the proper selection and use of eye and face protection. Eye injuries alone cost more than $300 million per year in lost production time, medical expenses, and worker compensation.
   https://www.osha.gov/SLTC/etools/eyeandface/index.html
2. **Selecting PPE's for the Workplace**
   Personal protective equipment (PPE) for the eyes and face is designed to prevent or lessen the severity of injuries to workers. Employers must assess the workplace and determine if hazards that necessitate the use of eye and face protection are present or are likely to be present before assigning PPE to workers. [29 CFR 1910.132(d)]
   A hazard assessment should determine the risk of exposure to eye and face hazards, including those which may be encountered in an emergency. Employers should be aware of the possibility of multiple and simultaneous hazard exposures and be prepared to protect against the highest level of each hazard. [29 CFR 1910 Subpart I App B]

Hazard Assessment		
Hazard Type	Examples of Hazard	Common Related Tasks
Impact	Flying objects such as large chips, fragments, particles, sand, and dirt.	Chipping, grinding, machining, masonry work, wood working, sawing, drilling, chiseling, powered fastening, riveting, and sanding.
Heat	Anything emitting extreme heat.	Furnace operations, pouring, casting, hot dipping, and welding.
Chemicals	Splash, fumes, vapors, and irritating mists.	Acid and chemical handling, degreasing, plating, and working with blood.
Dust	Harmful Dust.	Woodworking, buffing, and general dusty conditions.
Optical Radiation	Radiant energy, glare, and intense light.	Welding, torch-cutting, brazing, soldering, and laser work.

3. **Discussion**
   - Discuss whether you have all of the appropriate types of eye protections that you need for the type of work that is done in your shop.
4. **Recap & Review**
   - Review your company policy for wearing face and eye protection.
5. **Reminder:** Safety is the responsibility of management and employees!
6. **Next Safety Meeting** is scheduled for _____ and the topic will be _____.

34.3 MIA Safety Services - PPE Selection for Impact Hazards

(Source - www.osha.gov/SLTC/etools/eyeandface/index)

The majority of impact injuries result from flying or falling objects, or sparks striking the eye. Most of these objects are smaller than a pin head and can cause serious injury such as punctures, abrasions, and contusions.

While working in a hazardous area where the worker is exposed to flying objects, fragments, and particles, primary protective devices such as safety spectacles with side shields or goggles must be worn. Secondary protective devices such as face shields are required in conjunction with primary protective devices during severe exposure to impact hazards.

PPE Devices for Impact Hazards	
Spectacles	Primary protectors intended to shield the eyes from a variety of impact hazards.
Goggles	Primary protectors intended to shield the eyes against flying fragments, objects, large chips, and particles.
Face Shields	Secondary protectors intended to protect the entire face against exposure to impact hazards.

Impact Hazards: Safety Spectacles

Safety spectacles are intended to shield the wearer's eyes from impact hazards such as flying fragments, objects, large chips, and particles. Workers are required to use eye safety spectacles with side shields when there is a hazard from flying objects. Non-side shield spectacles are not acceptable eye protection for impact hazards. [29 CFR 1910.133(a)(2), 29 CFR 1915.153(a)(2)]

The frames of safety spectacles are constructed of metal and/or plastic and can be fitted with either corrective or non-corrective impact-resistant lenses. Side shields may be incorporated into the frames of safety spectacles when needed. Consider each component of safety spectacles when selecting the appropriate device for your workplace.

(*continued next page*)

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34.3 MIA Safety Services - PPE Selection for Impact Hazards

(Source - www.osha.gov/SLTC/etools/eyeandface/index)

Impact Hazards: Safety Spectacles

Spectacles - Lenses

The lenses of safety spectacles are designed to resist moderate impact from flying objects and particles.

- Plano (non-Rx) lenses should be used by workers who do not require vision correction. Lenses may be flat or curved and are available in clear, filtered, or tinted lenses and may include removable lenses.

Plano Lenses

- Prescription (Rx) lenses should be used by workers who require vision correction. These lenses may be clear, filtered, or tinted and may include removable lenses.

Prescription Lenses

Spectacles - Frames

The safety spectacle frames must fit comfortably and correctly to offer the necessary protection.

- Spatula temples fit *over* the ear. They can be either fixed or adjustable and are available in metal or plastic.
- Cable temples fit *around* the ear. They can be either fixed or adjustable and are available in metal or plastic.

Spatula Temples

- Headband temples are easily adjustable for a secure fit and are useful for tasks requiring movement.

Headband Temples

- Bridges are available in fixed or adjustable types. They may have adjustable nose pads with pliable arms and are available in a variety of sizes.

Adjustable Nose Pads

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34.3 MIA Safety Services - PPE Selection for Impact Hazards

(Source - www.osha.gov/SLTC/etools/eyeandface/index)

Impact Hazards: Safety Spectacles

Spectacles - Side Shields	
Side shields provide angular protection from impact hazards in addition to frontal protection.	
• Flatfold or semi side shields may be part of- or attached to- the temple. Styles include permanent, removable, solid, ventilated, tinted or clear shields.	 Flatfold Side Shields
• Full (cup) side shields may be removable, wire screen, tinted or clear.	 Full (cup) Side Shields

Impact Hazards: Safety Goggles

Safety goggles are intended to shield the wearer's eyes from impact hazards such as flying fragments, objects, large chips, and particles. Goggles fit the face immediately surrounding the eyes and form a protective seal around the eyes. This prevents objects from entering under or around the goggles.

Safety goggles may incorporate prescription lenses mounted behind protective lenses for individuals requiring vision correction. Take time to consider specific lens, frame, and ventilation options when selecting safety goggles.

Goggle Lenses	
Safety goggles lenses are designed and tested to resist moderate impact.	
• Clear lenses are available with removable lenses which may be prescription. They do not provide special protection against optical radiation.	 Clear, Removable Lenses

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34.3 MIA Safety Services - PPE Selection for Impact Hazards

(Source - www.osha.gov/SLTC/etools/eyeandface/index)

Impact Hazards: Safety Goggles

Goggle Frames

Safety goggle frames must be properly fitted to the worker's face to form a protective seal around the eyes. Poorly fitted goggles will not offer the necessary protection.

- Eyecup safety goggles cover the eye sockets completely. They are available with direct or indirect ventilation and can be rigid or flexible.

Eyecup Goggles

- Cover safety goggles may be worn over corrective spectacles without disturbing the adjustment of the spectacles and are available in direct, indirect, or non-ventilated types. They may be rigid or flexible.

Cover Goggles

Goggle Ventilation

Ventilated goggles allow air circulation while providing protection against airborne particles, dust, liquids, or light.

- Direct ventilation resist direct passage of large particles into the goggle while preventing fogging by allowing air circulation.

Direct Ventilated Goggles

- Indirect ventilation prevents fogging by allowing air circulation and protect against liquid or chemical splash entry.

Indirect Ventilated Goggles

- Non-ventilated goggles do not allow the passage of air into the goggle.
- They prevent splash entry but may fog and require frequent lens cleaning.

Non-ventilated Goggles

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34.3 MIA Safety Services - PPE Selection for Impact Hazards

(www.osha.gov/SLTC/etools/eyeandface/index)

Impact Hazards: Face Shields

Face shields are intended to protect the entire face or portions of it from impact hazards such as flying fragments, objects, large chips, and particles. When worn alone, face shields do not protect employees from impact hazards. Use face shields in combination with safety spectacles or goggles, even in the absence of dust or potential splashes, for additional protection beyond that offered by spectacles or goggles alone.

Face shield windows are made with different transparent materials and in varying degrees or levels of thickness. These levels should correspond with specific tasks. Window and headgear devices are available in various combinations to enable the worker to select the appropriate equipment.

Face Shield Windows

Face shield windows extend from the brow to below the chin and across the entire width of the face. Windows are available in both removable and lift-front designs.

- Plastic window-types protect against light impact. They are available clear or filtered and may include a glass insert.

Plastic Window

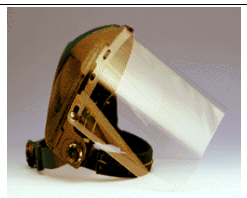
- Wire-screen windows protect against some moderate impact.
- They may include a plastic/glass insert and are not recommended for use involving chemical or liquid hazards.

Wire-screen Window

Face Shield Headgear

Headgear supports the window shield and secures the device to the head.

- Adjustable headgear includes straps that allow the user to manipulate the size of the headgear to ensure a proper fit.
- Allows face shields to be shared between employees



Adjustable Headgear

- Hard hats with face shields may have a window shield mounted under the visor of the hat.
- Face shields may be plastic, wire-screen, lift-front, or removable.

Hard Hat with Face Shield

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34.4 Safety Meeting Sign-In Sheet

TOPIC:		
FACILITATOR:		DATE:
Name (print)	(signature)	Department

(Make additional copies as needed)

NOTES:

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34.5 MIA Safety Product of the Month - February 2014

Safety Posters (Set-of-6)

Powerful natural stone safety posters designed to raise safety awareness throughout your facility. The six-poster set covers dealing with slab handling, use of hard hats, dust protection, saw safety, drugs and alcohol in the workplace, and the "10 Commandments of Safety."

Poster size 22"x 28"

Member Price: $99.00

Non-Member Price: $159.00

NOTES: