

## 29.0 MIA Safety Services - September 2013

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INSTITUTE  
of America

**STONE INDUSTRY SAFETY SERVICES**

### Executive Summary

Safety and health is everyone's responsibility. Each employer is responsible for the safety and health of its workers and for providing a safe and healthful workplace. Employees are responsible for complying with safety and health rules that are set forth by the employer.

Each year workers suffer shock when handling electrical tools and equipment. One of the problems in understanding the dangers of electrical shock is the mistaken belief that only high voltages kill. It's not the voltage that kills, but the amount of current that passes through the body. Injuries such as heart failure and severe debilitating and disfiguring burns are among the major hazards associated with improper use of electric-powered tools.

Two toolbox talks are enclosed: one reviewing an investigation from OSHA files and another reviewing General Safety Practices and Procedures. Also provided are a relevant safety checklist, standard employee meeting sign-in sheet, and a safety related "Product of the Month" feature.

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

- 29.1 ACCIDENT TOOLBOX TALK - OSHA Inspection Summary
  - Agenda
  - Overview
  - Prevention recommendations
  - Recap & Review
  
- 29.2 SAFETY TOOL BOX TALK - Electric Power Tools
  - Agenda
  - Overview
  - Recap & review
  
- 29.3 SAFETY CHECKLIST - Electric Power Tools Best Practices
  
- 29.4 SIGN-IN SHEET
  
- 29.5 SAFETY PRODUCT OF THE MONTH

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## 29.1 MIA Safety Services - OSHA Inspection Summary

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

### Agenda

Inspection Type:	Referral
Type of Operation:	Cut Stone & Stone Products
Size of Work Crew:	8
Safety Monitor on Site:	No
Safety & Health Program:	No
Regular Worksite	
Inspections:	No
Training Provided:	No



### Brief Description of Investigation

During interviews it was discovered employees were continually exposed to potential electrocution and shock hazards because they were instructed to use a portable circular rip-saw to cut granite slabs using a wet diamond wheel. Further investigation discovered the employer had attached a water line to the point of the cutting operation contrary to the manufacturer's printed warning, "This machine is not intended to be used with wet diamond wheels. Using water or other liquid coolants with this machine may result in electrocution or shock."

### Inspection Results

The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees in that the employer failed to ensure that a portable circular rip-saw was used in accordance with manufacturer's operating instructions [Section 5(a)(1) of the Occupational Safety and Health Act of 1970].

### Accident Prevention Recommendations

- The employer must train personnel the proper operating procedures and adhere to the warnings of the machine manufacturer.
- The employer must initiate and maintain a safety and health program.

### Recap & Review

- Has anyone seen or experienced a similar situation? What happened?
- Who is responsible for using tools properly?

### 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.*

## 29.2 MIA Safety Services - Electric Power Tools

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

### Agenda

1. **Overview:** Because power tools are so common in our industry, you are constantly exposed to a variety of hazards. The very tool that makes your job easy and efficient may one day be the cause of a tragic accident.
2. **Double-Insulated Tools:** Hand-held tools manufactured with non-metallic cases are called double-insulated. If approved, they do not require grounding under the National Electrical Code. Although this design method reduces the risk of shock, you could still be injured.
3. **Where used:** These tools are often used in areas where there is considerable moisture or wetness. Although you are insulated from the electrical wiring components, water can still enter the tool's housing. Ordinary water is a conductor of electricity. If water contacts the energized parts inside the housing, it provides a path to the outside, bypassing the double insulation. If you are holding a hand tool under these conditions and you touch another conductive surface, you will be shocked.
4. **Portable Tools and Extension Cords:** On the job, extension cords take a lot of wear and tear. Often, the damage is only to the insulation, exposing energized conductors. If you should touch the exposed wires while holding a metal tool case or come in contact with a conductive surface, serious electrical shock could result, causing a fall, physical injury, or death.
5. **Discussion:** Identify the tools you use in the shop or at a job site. Are they insulated? Double insulated? How are they grounded? Review the location of circuit breaker boxes, main shut off switches, emergency shut off switches, etc. Are they clearly marked and easily accessible?
6. **Recap & Review:**
  - Is there a risk of shock with double-insulated power tools? Explain.
  - What hazards are associated with improper use of electric tools?
1. **Reminder:** Safety is the responsibility of management and employees!
2. **Next Safety Meeting** is scheduled for \_\_\_\_\_ and the topic will be \_\_\_\_\_.

For more information see:

[http://www.osha.gov/SLTC/etools/construction/electrical\\_incidents/powertools.html](http://www.osha.gov/SLTC/etools/construction/electrical_incidents/powertools.html)

Stay Alert. Stay Alive. Don't be trapped into having an accident!

## 29.3 MIA Safety Services - Electric Tool Best Practices

The following checklist may help you take steps to avoid hazards that cause injuries, illnesses and fatalities. As always, be cautious and seek help if you are concerned about a potential hazard.

### General Safety

- Read the owners manual to understand the proper applications, limitations, operation and hazards of the tools in use.
- Inspect tools, equipment and extension cords before each use.
- Electric tools must have a three-wire cord with a ground and be plugged into a grounded receptacle, be double insulated, or be powered by a low-voltage isolation transformer.
- Only operate electric tools within their design limitations.
- Use gloves and appropriate safety footwear when using electric tools.
- Do not use electric tools in damp or wet locations unless they are approved for that purpose.
- Keep work areas well lighted when operating electric tools.
- Ensure that cords from electric tools do not present a tripping hazard.
- In the construction industry, employees who use electric tools must be protected by ground-fault circuit interrupters (GFCI) or an assured equipment-grounding conductor program.
- Safety devices that have been installed in equipment such as interlocks, covers and ground fault circuit interrupters (GFCI) are for the protection of all employees and are not to be bypassed.
- Do not operate electrical equipment while standing on metal, in water or on wet floors. This is difficult to avoid in the stone shop so be sure to wear rubber boots and gloves and make sure all equipment is properly connected to a GFCI.
- Never carry a tool by the cord.
- Never yank the cord to disconnect it from the receptacle.
- Keep cords away from heat, oil, and sharp edges (including the cutting surface of a power saw or drill).
- Disconnect tools when not in use, before servicing, and when changing accessories such as blades, bits, etc.
- Avoid accidental starting. Do not hold fingers on the switch button while carrying a plugged-in tool.
- Use gloves and appropriate safety footwear when using electric tools.
- Store electric tools in a dry place when not in use.
- Remove all damaged portable electric tools from use and tag them: “Do Not Use.”



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## 29.4 Safety Meeting Sign-In Sheet

TOPIC: \_\_\_\_\_

FACILITATOR: \_\_\_\_\_

DATE: \_\_\_\_\_

Name (print)	(signature)	Department

(Make additional copies as needed)

**NOTES:**



## 29.5 MIA Safety Product of the Month - September 2013

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STONE INDUSTRY SAFETY SERVICES

### Safety in the Stone Business

*This technical guide is an important source of guidelines on safety procedures for personal protective equipment, respiratory protection, hazard communication, equipment operations, slab handling, OSHA compliance, and much more.*

*This technical guide incorporates the content of the various MIA's safety videos. It is the perfect handout for use by natural stone fabricators and distributors for employee safety meetings and employee orientation. English and Spanish version available as downloads.*

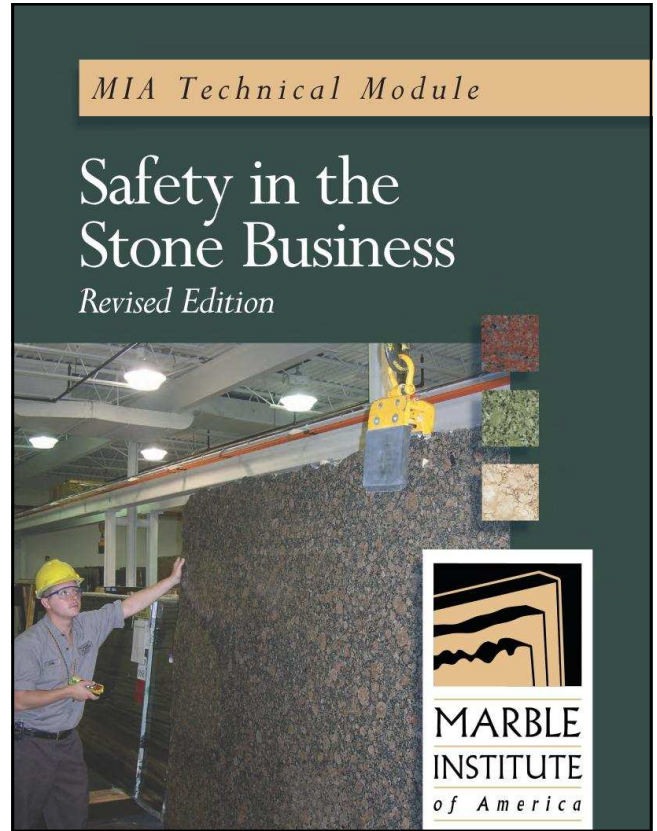
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