

2.0 MIA Safety Services - Handling Hazardous Materials

Executive Summary

Many chemicals used in the stone industry are extremely flammable. Mixing hazardous chemicals with unsafe work practices produces a recipe for trouble. The key objective of this issue is to describe the dangers encountered storing and handling hazardous chemicals and recognizing safe work practices that reduce the risk of accidents and injuries. Two toolbox talks are provided - one addressing an actual accident from Occupational Safety and Health Administration (OSHA) files and another on Handling Hazardous Materials. Additionally, a topical safety checklist, standard employee sign-in sheet, and a safety-related "Product of the Month" feature are provided.

Enclosed in this installment of MIA Safety Services are the following resources:

2.1 TOOLBOX TALK - OSHA ACCIDENT - Arc/Flash Fire

- Agenda
- Overview
- Description of Accident
- Prevention Recommendations
- Recap & Review

2.2 TOOLBOX TALK - SAFETY - Handling Hazardous Materials

- Agenda
- Overview
- Recap & review

2.3 SAFETY CHECKLIST

- Fire Protection/Prevention/Exits
- Electrical
- Remarks

2.4 SIGN-IN SHEET

2.5 SAFETY PRODUCT OF THE MONTH - Paid Advertisement

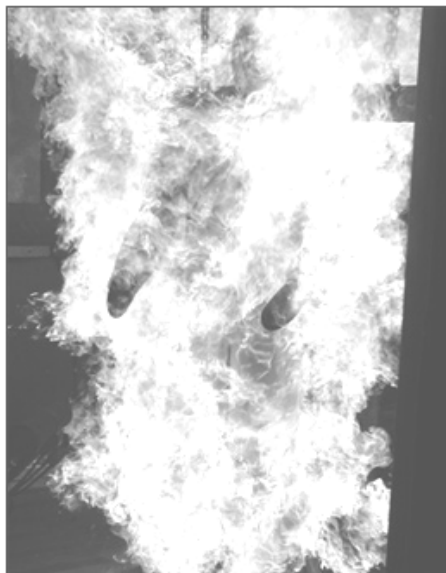
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2.1 Toolbox Talk - OSHA Accident Summary

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

Agenda

Accident Type:	Death due to Arc Flash
Weather Conditions:	Unknown
Type of Operation:	Fabricator
Size of Work Crew:	2
Competent Safety Monitor on Site:	No
Safety and Health Program:	No
Regular Worksite Inspections:	No
Training Provided:	No
Age & Sex:	44; Male
On the Job Experience:	7 yrs.
Time on this Project:	0.5 days



Brief Description of Accident

Employee was working for a firm that provided cut stone and stone products. He was transferring denatured alcohol from a 55-gallon plastic drum into a 32-ounce plastic bottle using an electric pump that was not approved for use with flammable materials. The 55-gallon drum was two-thirds empty, and a large quantity of flammable vapor had accumulated inside the drum. The pump arced, and the vapors ignited, causing a flash fire. Employee received third degree burns over 65 percent of his body. He was transported to the hospital by ambulance and died as a result of his injuries 3 days later.

Inspection Results

Following an inspection, OSHA issued citations for two serious violations of OSHA standards:

1. Frequent and regular inspections of equipment were not made by competent persons designated by the employer in accordance with 29 Code of Federal Regulations (CFR) 1926.20(b)(2).
2. The employees doing inspections were not instructed to examine the wires for signs of wear and abrasion as required by 29 CFR 1926.21(b)(2).

Accident Prevention Recommendations

1. Train maintenance and operating personnel to recognize potential problems with the operation of the machinery.
2. Have competent persons perform periodic inspections of all operating equipment.
3. Ensure that the employer initiates and maintains a safety and health program, in accordance with 29 CFR 1926.20(b)(1).

RECAP & REVIEW

1. What should you do with damaged electrical equipment?
2. What steps or procedures should have been taken to prevent this accident?

Reminder: Safety is the responsibility of both management and employees!

Next Safety Meeting is scheduled for _____ and the topic will be _____.

NOTE: The case here described was selected as being representative of fatalities 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.

2.2 Toolbox Talk - Handling Hazardous Materials

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

Agenda

1. **Overview:** Mixing hazardous chemicals with unsafe work practices produce a recipe for trouble. Recognizing safe work practices reduces the risk of accidents and injuries.
2. **Proper procedures make safety second nature:** When it comes to hazardous materials, are you and your coworkers using the proper procedures for:

	moving	opening	storing	mixing
Flammable liquids				
Paint				
Solvents				
Oxidizers				
Explosives				
Compressed gas				
Poisons				
Corrosives				

3. **PPE can save the day:**
 - Are you and your coworkers wearing the appropriate personal protective equipment for the job?
 - Be sure you know what you need to wear in order to work safely.
4. **Prevent accidents with Hazardous materials:**
 - Always read the MSDS and label before handling any materials.
 - Follow your company's chemical storage plan.
 - Refer to label warnings and MSDS information regarding compatibility.
5. **Discussion:**
 - Take a few minutes now to read the labels of the chemicals you use.
 - You may not need to know the chemical formula, but what information is there that is important to you?
6. **RECAP & REVIEW:**
 - Remind/ review with everyone the location of the MSDS.
 - Don't take chemicals for granted. Know what you're using and how to protect yourself.
7. **Reminder:**
 - Safety is the responsibility of both management and employees!
8. **Next Safety Meeting** is scheduled for _____ and the topic will be _____.

2.3 Safety Checklist

FIRE PROTECTION/PREVENTION/EXITS	YES	NO	N/A
1. Portable extinguishers – in place, hung on bracket, accessible, current inspection tag	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Hoses/valves – accessible, nozzle provided, not frayed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Exits/signs – exits not obstructed, lighted exit signs provided, door operates properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Emergency lights are tested and are fully operational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Fire doors – unobstructed, operate properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Fire brigades – proper training/equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Automatic sprinklers – flow tested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Fire alarm systems – documented testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ELECTRICAL			
1. All boxes covered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. 36" clearance from panels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Breakers not taped "open"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Breakers properly labeled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Extension cords not used as permanent wiring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Electrical cords are free of damage, frayed, cracked and/or broken insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: *Explain any additional items needing attention.*

Toolbox Talk Archives: www.marble-institute.com/toolboxtalk



STONE INDUSTRY SAFETY SERVICES

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(make additional copies as needed)

NOTES:

2.5 MIA Safety Product of the Month

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STONE INDUSTRY SAFETY SERVICES

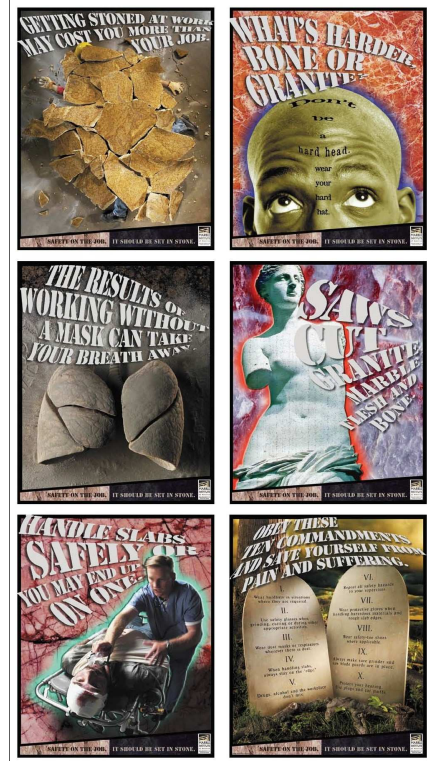
Safety Posters (Set-of-6)

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



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