Stone Fabrication and Installation Safety



INTRODUCTION

Working with stone poses many dangers for workers. There are crushing hazards from slab handling, equipment hazards, and other hazards associated with working with stones.

CRYSTALLINE SILICA DUST

Crystalline silica is a natural mineral that is part of the stone. Cutting, grinding, polishing, and drilling can produce airborne exposure to workers.

Silicosis, a progressive and irreversible lung disease, can develop from inhaling excessive amounts of crystalline silica. This condition is potentially disabling and in some cases fatal. To reduce silicosis, you should do the following:

- Reduce airborne silica dust by using wet processes and equipment to suppress airborne dust. Floor drainage and wet boots may be required in these areas. Electrical hazards in wet areas can be avoided through the use of pneumatic tools.
- Do not dry sweep. Follow company protocols when cleaning the shop by using a wet method.
- Do not blow dust off yourself with compressed air.
- Wash hands thoroughly prior to meal breaks.
- Do not eat or drink in the work area.
- To protect yourself and your family, change into clean clothing in a clean area. Take coveralls off slowly. Use a HEPA vacuum to clean clothes, do not shake dust off clothes.
- Respirators may be necessary where engineering controls are not available for a particular task, or if engineering controls, such as wet/pneumatic tools or local exhaust ventilation, do not adequately control dust.
- Consider staggering workstation positions to avoid exposing other workers to grinding dust.

SLAB HANDLING

Workers have been crushed while handling and transporting rock slabs that have shifted or fallen.

- Secure slabs when storing to prevent them from falling.
- Use caution when removing one slab from a bundle and make sure that the other slabs stay secure.

- Periodically inspect and properly maintain the storage racks in the workplace and on vehicles used to transport materials.
- Avoid getting beneath suspended loads.
- Always stay on opposite ends of the slab during transport to avoid being crushed in case the slab shifts or falls.
- Avoid lifting or handling a slab from a flat or horizontal position to minimize awkward posture and reduce the weight being lifted.

SAWS AND POWER EQUIPMENT

- Make sure water is flowing before operating your saw. Do not operate using dry process.
- Do not leave equipment running unattended, turn off when it is not in use.
- Make sure all appropriate machine guards are in place prior to starting the machine.
- Wear safety glasses and hearing protection as required.
- Secure long hair and do not wear loose clothing or jewelry.

ELECTRICAL HAZARDS

- To prevent electrocution or electrical shock use grounded electrical equipment. Use Ground Fault Circuit Interrupters (GFCIs) or pneumatic tools in areas where water is in use.
- Electrical cords should be routed overhead to avoid tripping.
- Do not use temporary wiring on permanent sites.
- Do not allow power cords to come in contact with water, make sure that adequate floor drainage is in place.
- Always check for frayed cords and replace them immediately.

HAZARDOUS MATERIALS

- Read and adhere to instructions on the Safety Data Sheet (SDS) for the chemical that you are using.
- Work in adequately ventilated areas.
- Wear appropriate gloves and aprons to avoid chemical contact with skin.
- Use safety glasses or safety goggles to reduce the risk of eye injuries.
- Familiarize yourself with the location of the nearest eye wash and shower station.
- Always label secondary chemical containers to clearly identify contents.

PERSONAL PROTECTIVE EQUIPMENT

- Wear safety glasses or safety goggles to protect your eyes.
- Wear steel toe boots to avoid crush injuries.
- Use rubber aprons and boots to keep dry when using water fed tools and equipment.
- Use hearing protection if noise levels exceed 85dBA. Check with your company’s safety program if you have questions or need safety equipment.
- Use respirators where required. Make sure you have been fit tested and trained to conduct facepiece seal checks.
- Maintain and keep respirators in good condition by storing them properly and replacing the cartridges regularly.

Use hard hats when instructed to do so.