Silica

Crystalline Silica, commonly referred to as silica, is a respirable size dust particulate usually found in soil, sand, and granite. Silica is most commonly found in the form of quartz. Dust generated from abrasive sand blasting, drilling and grinding of rock, chipping of concrete, and masonry work may contain silica. Occupational diseases related to silica exposure include tuberculosis, bronchitis, lung cancer and silicosis. Nationally, over 2 million workers are exposed to silica and over 300 workers per year die from silicosis.

HEALTH HAZARDS

- Respirable size dust particulates accumulate in the deepest recesses of the lung (alveolar structures), decreasing lung function and oxygen exchange.
- Silicosis is scarring of lung tissue caused by the inhalation of dust containing silica. There is no cure.

WHO IS AT RISK

Employees who work in certain University trades may be at risk for silica exposure and should be knowledgeable in silica exposure control measures. These include brickmasons/stonemasons, grounds workers and painters.

HIGH RISK TASKS

- Sandblasting….Contact EH&S prior to all sandblasting projects
- Cutting or mixing dry concrete, tuckpointing mortar and jackhammering concrete
- Roadway and sidewalk repair

CONTROLLING EXPOSURES

- Use water at the point of dust generation
- Use local exhaust ventilation and utilize HEPA filtered power tools
- Switch to non-silica abrasive blasting agents such as steel shot
- Wear a disposable coverall or change into clean clothing before leaving the worksite
- Do not eat, drink, use tobacco or apply cosmetics in the work area.
- Wash your hands and face before eating, drinking, smoking or applying cosmetics outside of the exposure area
- Do not use compressed air to clean off clothing
- Respiratory protection may be required if engineering controls are infeasible or are ineffective at reducing exposures. Contact EH&S for an exposure assessment when performing high risk tasks.