

Silica Exposure in the Precast Concrete and Ready Mix Industry

Tasks likely to expose workers to RCS above the PEL

- Ripping/Crosscutting hollow-core slab/planks
- Operators located on saw control station may still be exposed, especially when ripping
 - Dust blows out of cores
- Reduce speed to allow enough water
 - Consider remotely operated equipment
 - Respiratory protection may still be needed



Tasks likely to expose workers to RCS above the PEL

- Handheld “partner saw” use
- Use wet delivery or vacuum methods



Tasks likely to expose workers to respirable crystalline silica

- Precast grinding/finishing
 - Bridge beams
 - Pipe / Manholes
- Use wet-delivery or vacuum methods
- Respiratory protection may still be needed



Tasks likely to expose workers to respirable crystalline silica

- Grinding channels after concrete has cured
- Mold flow-lines/inverts when still green
- Use wet-delivery or vacuum methods



Tasks likely to expose workers to respirable crystalline silica

- Drilling
 - Manhole steps
 - Attaching grating to end-walls
- Use wet-delivery or vacuum methods



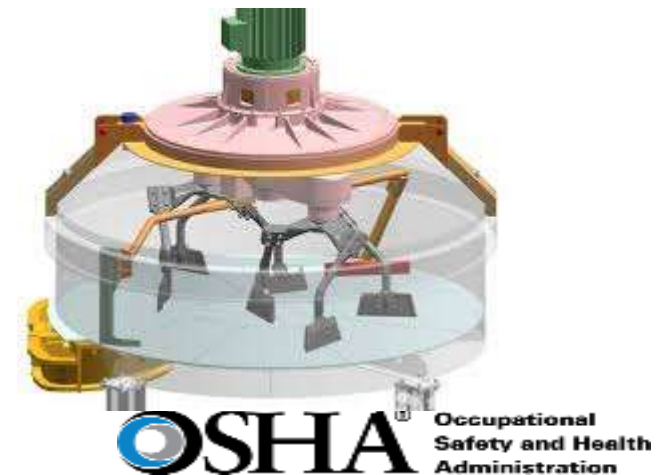
Tasks likely to expose workers to respirable crystalline silica

- Core Drilling- Sanitary Sewer
- Rig-mounted drills
- Ensure slow speed to allow to ensure water delivery system is adequate to control dust



Tasks likely to expose workers to respirable crystalline silica

- Plant batch/pan mixer cleaning (end-of-shift)
- Ready-mix truck drum cleaning
- Tasks often requires use of air chisels/hammers/chippers to remove hardened concrete in confined spaces
- Utilize local exhaust ventilation (if equipped)
- Respiratory protection typically required



Tasks likely to expose workers to respirable crystalline silica

- Tricast/Hawkeye pipe machine pit cleaning
- Task requires entry into pit to clean w shovels/brooms
- If dust cannot be reduced by alternative cleaning methods, respiratory protection may be required



Tasks likely to expose workers to respirable crystalline silica

- Precast form cleaning
 - Using pneumatic chipping equipment
 - Using compressed air blow guns
- Only use compressed air if no other methods are practical/feasible
 - Capture dust using local exhaust ventilation
 - Consider alternative methods just as vacuum systems or cleaning w/water



Tasks likely to expose workers to respirable crystalline silica

- Housekeeping: Dry sweeping & compressed air use
- Use housekeeping methods that do not contribute to generating airborne dust
 - Implement alternative methods (i.e. vacuuming)
 - Sweeping Compounds



Drum Chipping



Ready Mix



Automatic Hatch Covers



- Eliminates Accessing top of truck – Eliminates Dust Exposure
- Some maintenance required....