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 with 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….