

OSHA's "New" Respirable Crystalline Silica Standard for Construction – What You Need to Know

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Enforcement Update

- Enforcement of OSHA's "New" Respirable Crystalline Silica Standard for Construction became effective on Sept. 23.
- On Sept. 20, OSHA announced its enforcement policy for the first 30 days:
 - Contractors who are putting forth good faith efforts to comply
 - No citations will be issued;
 - OSHA will offer compliance assistance and outreach with a focus on full and proper implementation of the controls listed in Table 1.
 - Contractors who are NOT putting forth good faith efforts to comply
 - OSHA inspection, including air monitoring for exposures;
 - Citations may be issued.
 - Inspection/citation guidance and compliance directive
 - Interim inspection/citation guidance to be released within the first 30 days of enforcement;
 - Compliance directive will be released at a later date.
- Contractors with operations in State Plans, and who are covered by the silica standard, should contact their Administrators to find out if the September 20 memorandum will be acknowledged.

Litigation Status

- Louisiana AGC filed a petition to challenge the rule in the 5th Circuit on April 4, 2016.
 - AGC along with 22 other national associations joined the petition for review on May 2, 2016.
- The challenge is based on:
 - Technological infeasibility
 - In our view OSHA has not demonstrated that the proposed exposure limit can be met consistently.
 - Economic infeasibility
 - OSHA's analysis states that the estimated cost of compliance will be \$500 million per year
 - Our independent analysis shows compliance costs to be nearly \$5 billion per year.
- Oral arguments scheduled for September 26 in the D.C. Circuit
 - Panel of Judges
 - Merrick Garland: appointed by President Bill Clinton in 1997
 - Karen Henderson: appointed by President George H.W. Bush in 1990
 - David Tatel: appointed by President Bill Clinton in 1994

Efforts Outside Litigation

- Settlement Discussions
 - Industry Coalition Suggested Settlement Parameter
 - Re-open Table 1 to add other engineering control options and equipment/tasks.
 - Develop FAQ's addressing ancillary provisions of concern.
 - Further extend enforcement of the standard pending the re-opening of Table 1
 - DOL/OSHA Counter-Proposal – After Oral Arguments
 - Industry coalition, unions and OSHA work together to address concerns with Table 1 and enforcement guidance.
 - DOL is concerned about doing anything without union participation.

Overview

- Final rule issued on March 25, 2016
- The final rule includes:
 - Permissible exposure limit (PEL) of 50 $\mu\text{g}/\text{m}^3$ (down from 250 $\mu\text{g}/\text{m}^3$) with an action level (AL) of 25 $\mu\text{g}/\text{m}^3$.
 - Specified and Alternative Exposure Control Methods
 - Respirator use when dust control systems or work practices are not sufficient to meet PEL
 - Written exposure control plan implemented by a competent person
 - Housekeeping requirements that prohibit dry brushing or sweeping unless wet sweeping and HEPA vacuuming are infeasible
 - Medical surveillance (chest x-ray, pulmonary function test, TB test, etc.) of workers that wear respirators more than 30 days out of a year.
 - Communication of silica hazards through existing HazCom standard by way of labels and safety data sheets and employee training
 - Maintaining employee air monitoring and medical surveillance records for the duration of employment plus 30 years

Scope

- All occupational exposures to respirable crystalline silica are covered, unless employee exposure will remain below 25 $\mu\text{g}/\text{m}^3$ as an 8-hr TWA under any foreseeable conditions.
- Exposures from chipping, cutting, sawing, drilling, grinding, sanding, and crushing of concrete, brick, block, rock, and stone products

Specified Exposure Control Methods: Table 1

- Table 1 in the standard contains 18 tasks with specific engineering and work practice controls (including respiratory protection in some cases).
- If contractors “fully and properly” implement the controls listed in Table 1, they will not have to:
 - Comply with the PEL
 - Conduct exposure assessments for employees engaged in the task(s)

NOTE: for tasks not listed in Table 1 – and have the potential to generate high silica exposures – contractors must comply with the PEL and the requirements for exposure assessments.

Fully and Properly Implementing Controls Specified on Table 1

- Presence of controls is not sufficient
- Employers are required to ensure that:
 - Controls are maintained
 - Employee understand the proper use of those controls and use them accordingly

Employees Engaged in Table 1 Tasks

- Employees are “engaged in the task” when operating the listed equipment, assisting with the task, or have some responsibility for the completion of the task.
- Employees are not “engaged in the task” if they are only in the vicinity of a task.
 - How will this work?

Respiratory Protection Requirements on Table 1

- Respirators required where exposures above the PEL are likely to persist despite full and proper implementation of the specified engineering and work practice controls.
- Where respirators required, must be used by all employees engaged in the task for entire duration of the task.
- Provisions specify how to determine when respirators are required for an employee engaged in more than one task

Exposure Assessment

- Required if:
 - You are not “engaged” in a task, or “fully and properly” implementing the specified engineering and work practice controls list in Table 1.
 - Silica exposures resulting from the task are or may reasonably be expected to be at or above action level of $25 \mu\text{g}/\text{m}^3$.
- Exposures assessments can be done following:
 - The performance option; or
 - The scheduled monitoring option.

Performance Option

Exposures assessed using any combination of air monitoring data or objective data sufficient to accurately characterize employee exposure to respirable crystalline silica.

Objective Data

- Includes air monitoring data from industry-wide surveys or calculations based on the composition of a substance;
- It demonstrates employee exposure associated with a particular product or material or a specific process, task, or activity.
- Must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.
- Based on the requirements above, can you have reliable objective data in the construction industry?

Scheduled Monitoring Option

- Prescribes a schedule for performing initial and periodic personal monitoring.
- If air monitoring indicates:
 - Initial below the AL: no additional monitoring
 - Most recent air monitoring (non-initial) at or above the AL: repeat within 6 months
 - Most recent air monitoring (non-initial) above the PEL: repeat within 3 months
 - When two consecutive non-initial results, taken 7 days or more apart, and are below the AL, monitoring can be discontinued.
 - Reassessment is required if circumstances change

Methods of Compliance – Engineering and Work Practice Controls

- Employers can use any engineering or work practice controls to limit exposures to the PEL.
- Respirators permitted where PEL cannot be achieved with engineering and work practice controls.

Respiratory Protection

- Must comply with 29 CFR 1910.134
- Respirators required for exposures above the PEL:
 - While installing or implementing engineering controls or work practices
 - For tasks where engineering controls or work practices are not feasible
 - When feasible engineering controls cannot reduce exposures to the PEL

Housekeeping

- When it can contribute to silica exposure, employers must not allow:
 - Dry sweeping or brushing
 - Use of compressed air to clean clothing or surfaces unless used in conjunction with a ventilation system to capture the dust.
- Dry sweeping and compressed air can only be used if no other methods such as HEPA-filtered vacuums, wet sweeping, or other methods that minimize the likelihood of exposures (i.e. ventilation system used with compressed air) are not feasible.

Written Exposure Control Plan

- The plan must explain:
 - Tasks that involve exposure to silica
 - Engineering controls, work practices, and which task(s) require the use of respiratory protection
 - Housekeeping measures used to limit silica exposure
 - Procedures used to **restrict access** – when necessary – to minimize the number of employees exposed to silica (this includes exposures generated by other contractors).
- Contractors must also designate a **competent person** to make frequent and regular inspections of jobsites, materials, and equipment to implement the plan.

Medical Surveillance

- Employers must offer medical examinations to workers who will be required to use a respirator for 30 or more days per year.
- Employers must ensure that the PLHC has a copy of the silica standard and provide the PLHCP with information related to the employee(s) silica exposure.
- Medical examinations must include:
 - Medical and work history with an emphasis on exposure to silica, dust, or other agents that affect the respiratory system.
 - Physical exam
 - Chest X-ray
 - Pulmonary function test
 - TB test
- Medical examinations must also be offered every three years to workers whose job will continue to require the use of a respirator for 30 or more days per year (except for the TB test).

Medical Opinion

- Worker receives report with detailed medical findings
- Employer receives an opinion that only describes limitations on respirator use, and **if the worker gives written consent**, recommendations on:
 - Limitations on exposure to silica; and/or
 - Examination by a specialist

Communication of Hazards and Training

- Employers required to include silica in their programs developed to comply with the hazard communication standard (HCS) (29 CFR 1910.1200)
- Address: Cancer, lung effects, immune system effects, and kidney effects as part of HCS
- Train workers on health hazards, tasks resulting in exposure, workplace protections, and medical surveillance.

Recordkeeping

- Must maintain records per 29 CFR 1910.1020 for:
 - Air monitoring data
 - Objective data
 - Medical records
- For some employee records 29 CFR 1910.1020 requires these records to be maintained 30 years or more.

AGC Respirable Crystalline Silica Survey

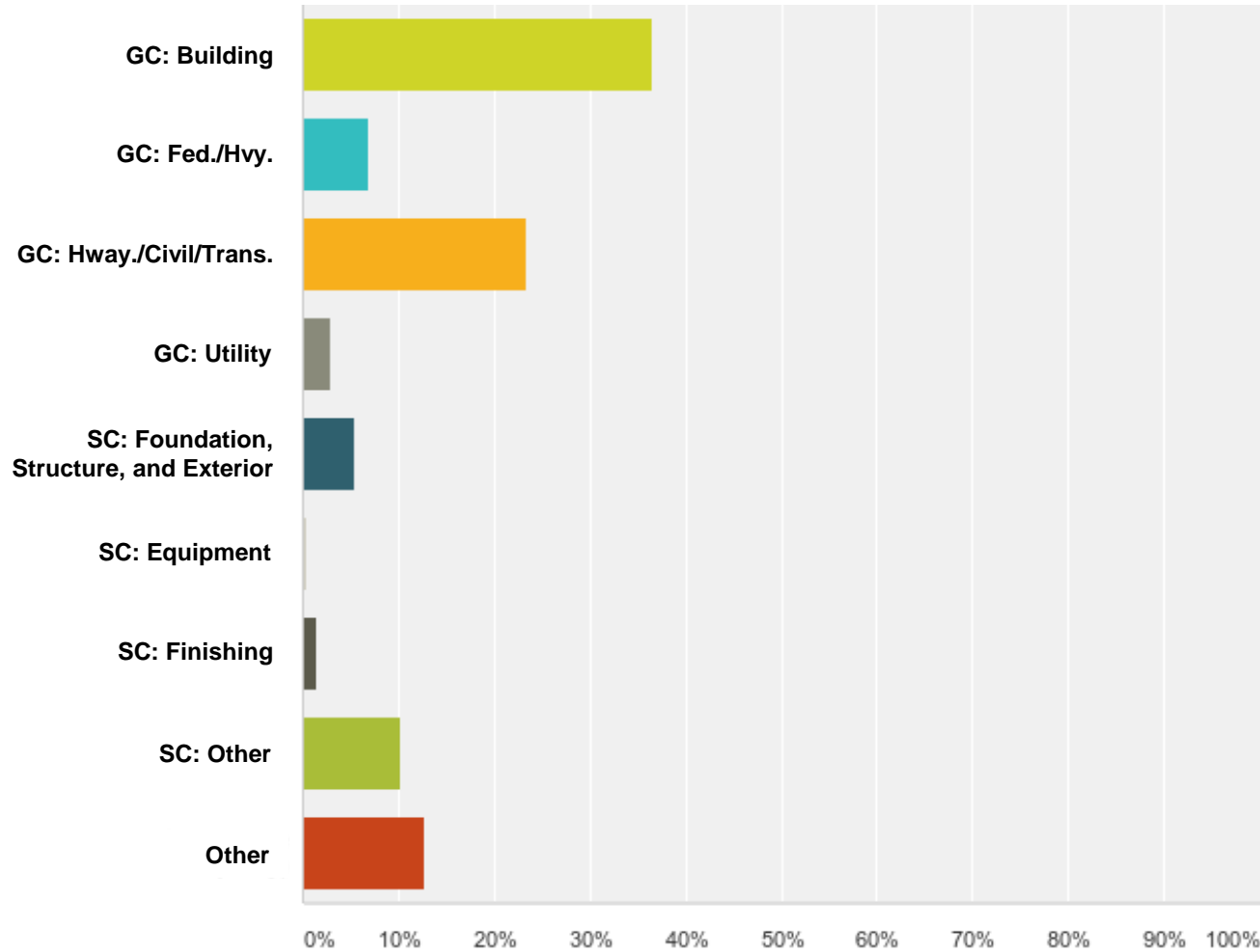
206

Total Responses

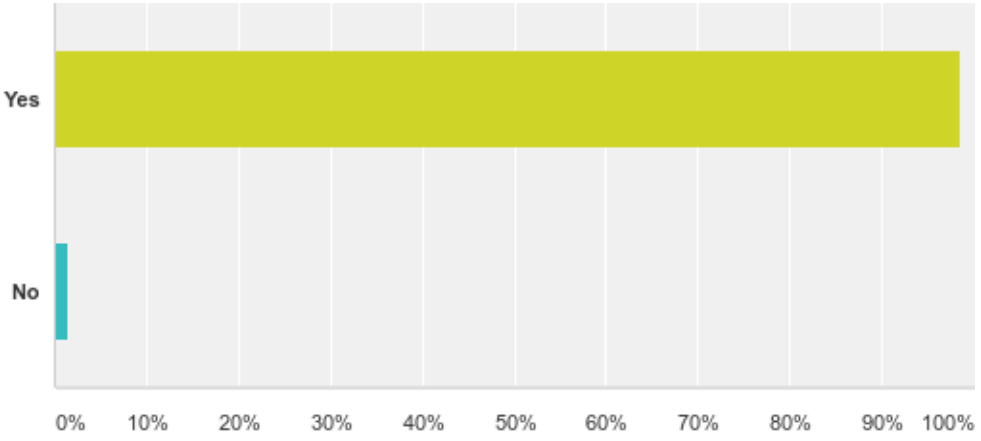
Runtime: June 7 - 28, 2017

Complete Responses: 172

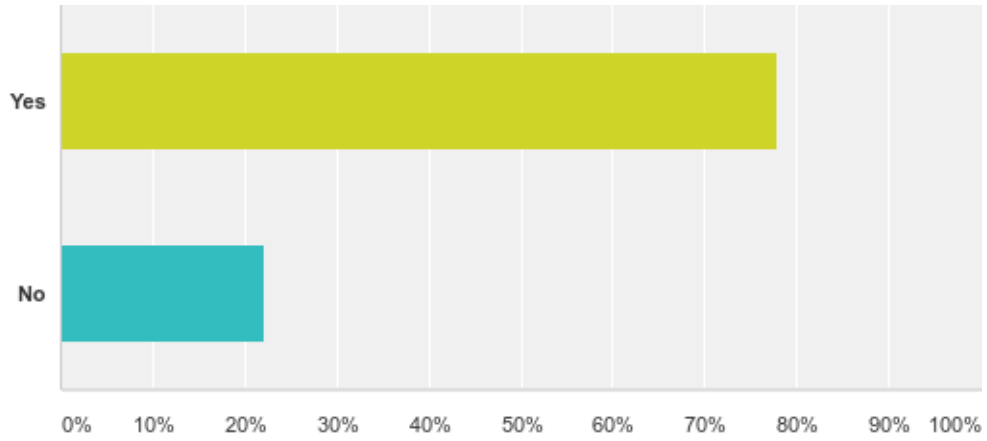
Survey Participants



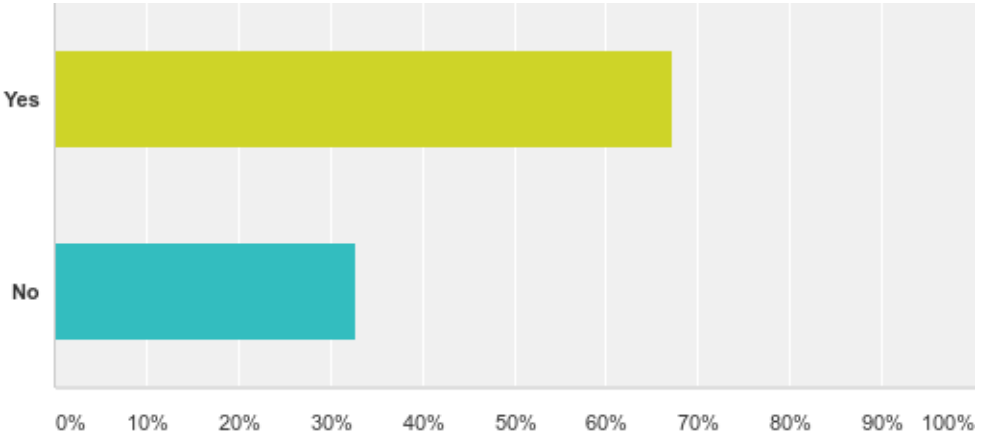
Are you aware of OSHA's new Silica Standard for Construction?



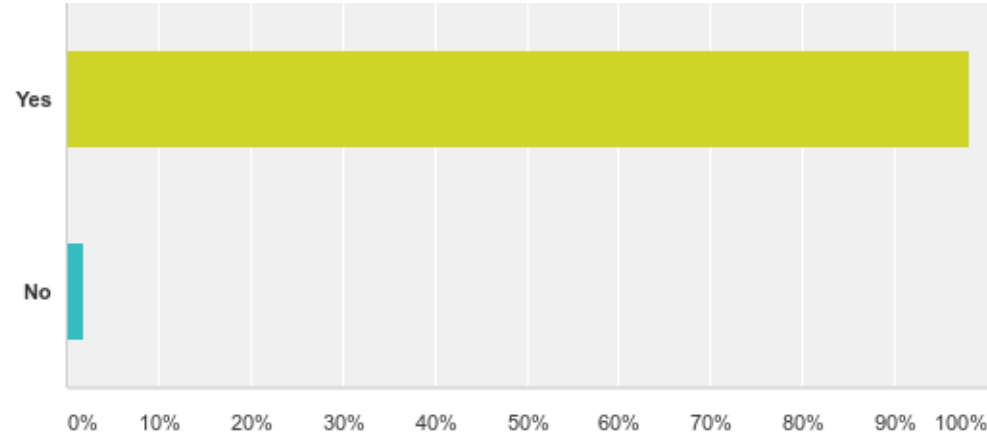
Have you read the final rule?



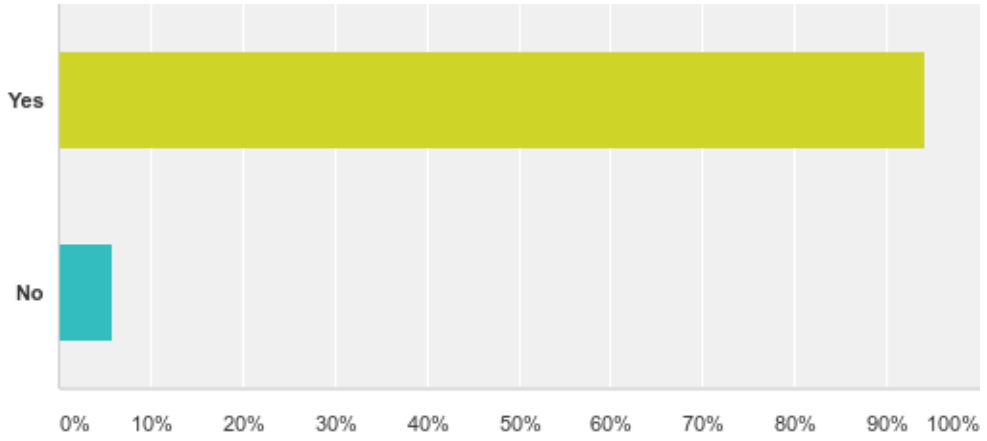
Have you read OSHA's Small Entity Compliance Guide?



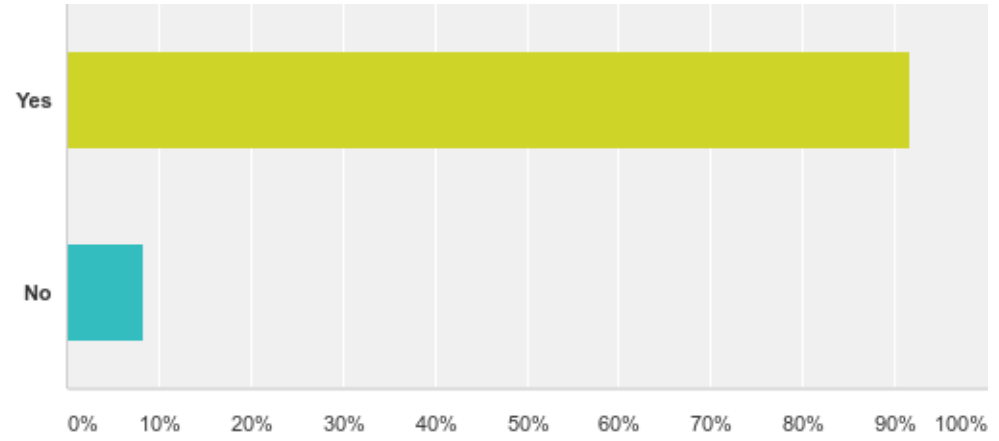
Are you aware that OSHA delayed enforcement of the standard?



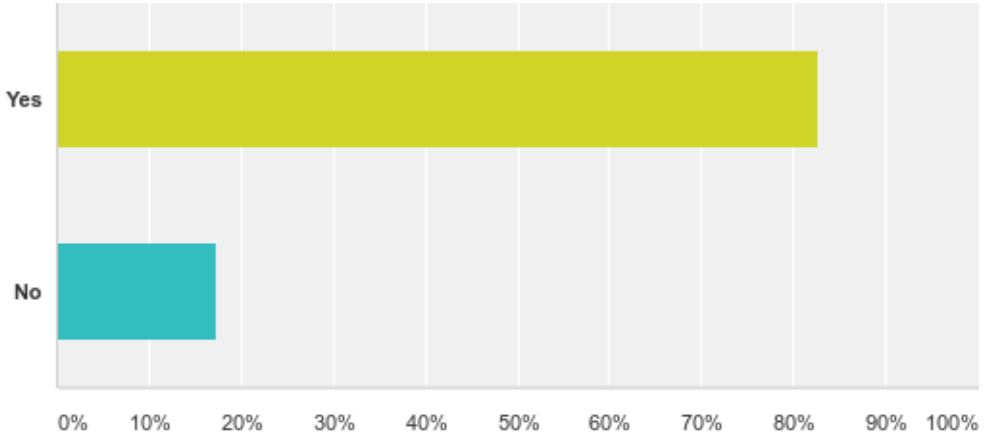
Within your company, has there been discussions about the new silica rule?



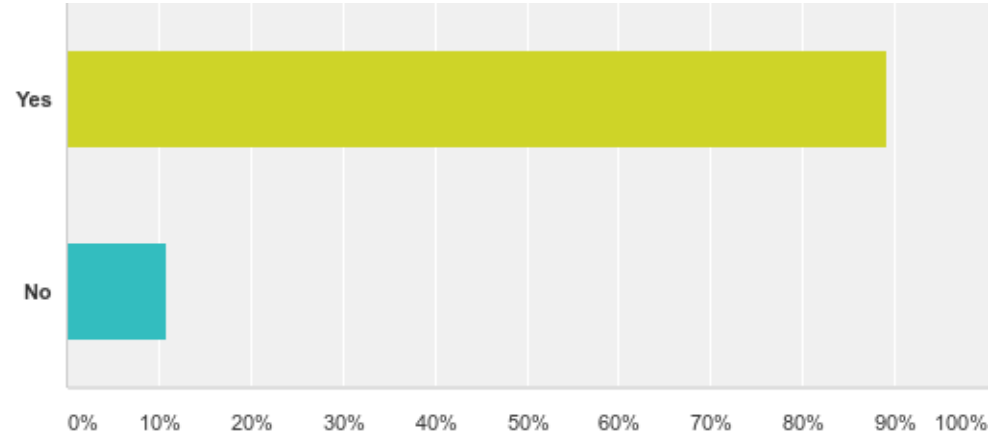
Have you determined if the rule applies to your operation(s)?



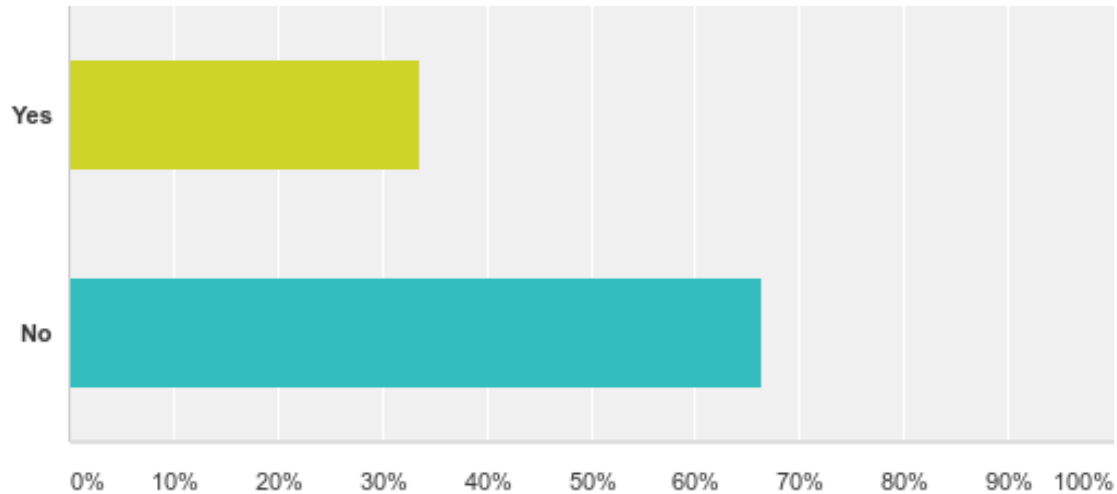
Do you understand the requirements as they apply to your operation(s)?



Will your company follow Table I?



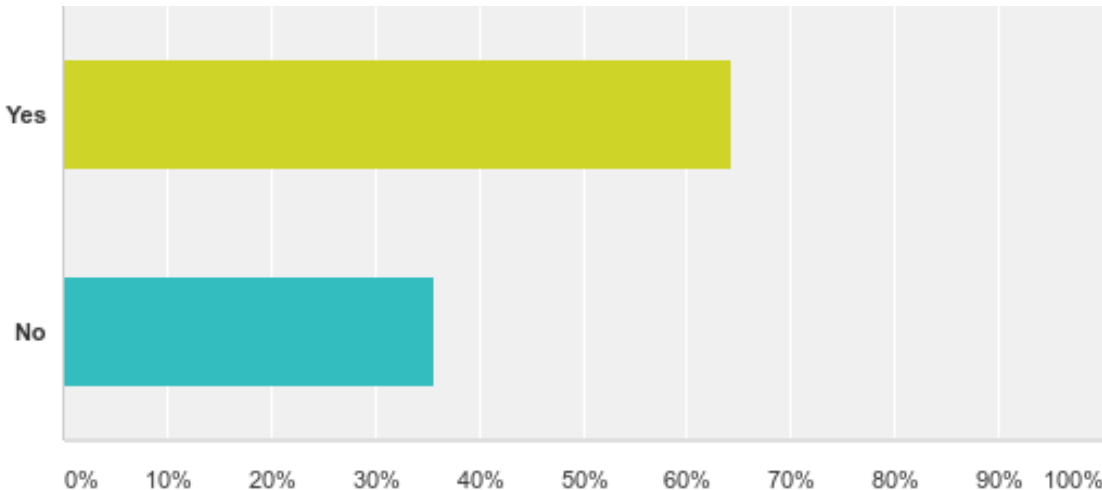
Does your company perform tasks that are not listed in Table I?



- Installation of electrical systems
- Soft-cutting concrete, certain demolitions and debris removal, etc.
- Mixing grout by hand or with a machine
- Hand sweeping (Conex box/office trailer, or large debris on a concrete surface)
- Abrasive blasting
- Maintenance on baghouses
- Handling concrete bags
- Deck groover
- Housekeeping, non-working/supervision, job auditing
- Sweeping, housekeeping
- Mixing mortar
- Drywall (hanging and finishing)

- Concrete planners, brick splitters, masonry silos, mortar mixers, Hilti shooters, etc.
- Mixing bags of cement, sand, grout and mortar
- Spreading shake on poured concrete floors
- Sandblasting concrete joints, street sweeping attachment for Skidsteer
- Sweeping residue
- Drilling/cutting holes in concrete
- Blasting, blow pipes, concrete hydro jet
- Sanding drywall
- Grinding terrazzo floors
- Demolition by hand tools
- Removing stone or tile flooring
- Drilling behind door frames to install.
- Demising existing wall with Sawzall
- Crushing, munching concrete with excavator
- Concrete sawing
- Housekeeping, dry mortar mixing, demolition
- Sweeping concrete dust
- Asphalt milling, asphalt cutting, concrete form cleaning
- Street sweeping
- Soil stabilization, tieback operations, etc.
- Shot blasting, sand blasting (unable to add water to any surface)
- Broom tractors
- Drywall finishing
- Multiple, suspended scaffold tuck pointing & bricklaying tasks.
- Overhead grinding, drilling dowels into concrete.
- Heavy caisson drilling and many other concrete functions

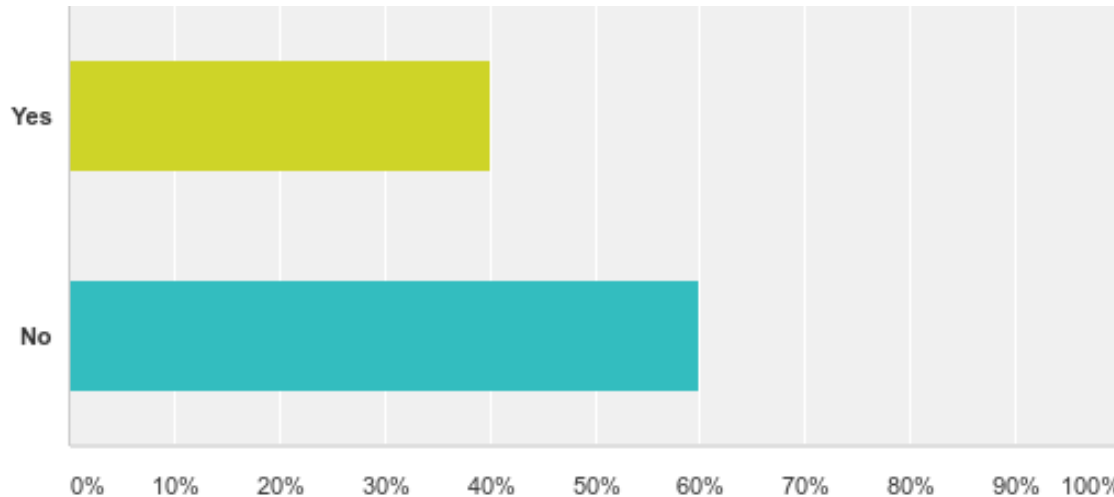
Does your company plan to follow the alternative exposure control methods?



Comments:

- Yes, because task(s) not included in Table 1
- Only where Table I cannot be followed

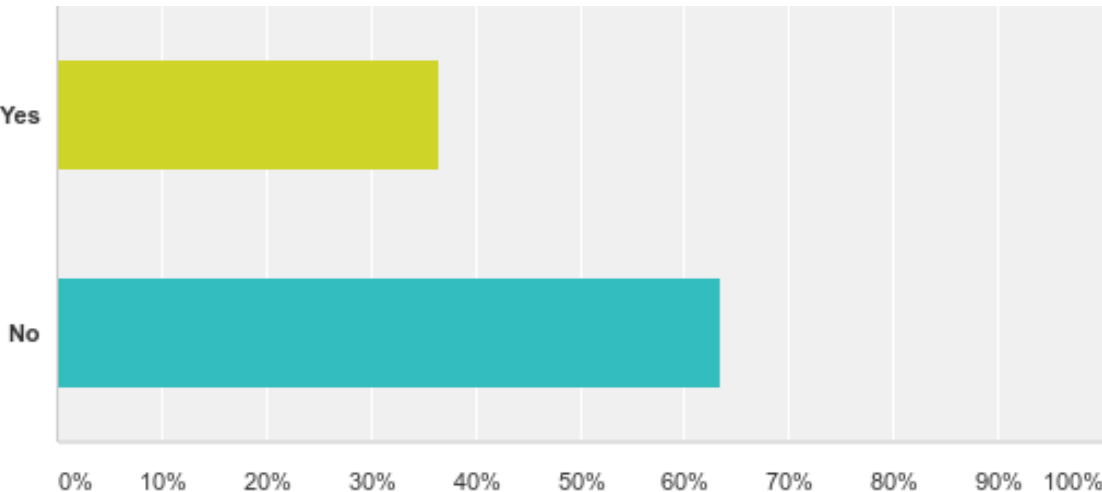
Have you implemented a written exposure control plan?



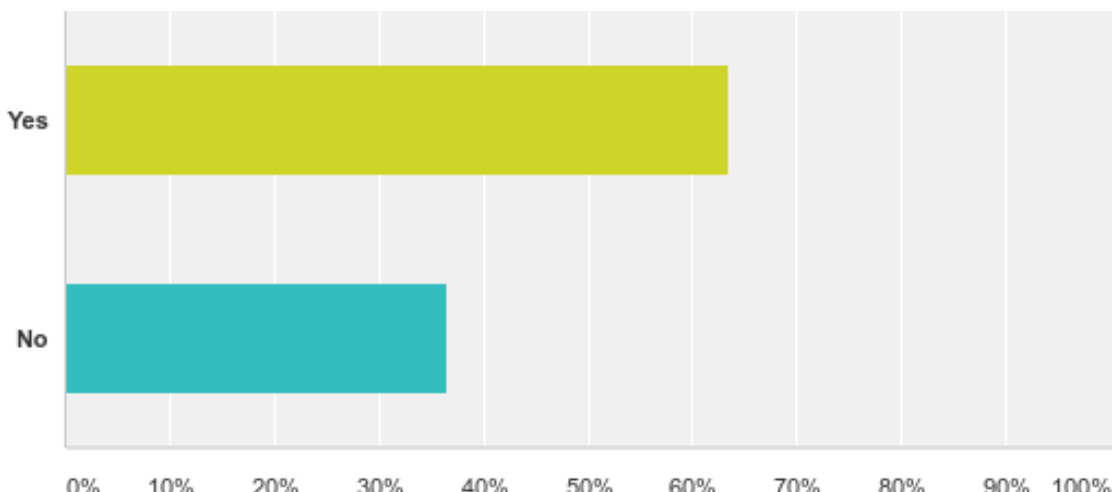
Comments:

- In progress
- Written but not implemented yet
 - Conducting employee training
 - Awaiting upper management approval
 - Waiting to see what happens with the rule

Have you connected with an occupational health medical partner to assist in meeting the medical examination requirements?



Has respirable crystalline silica been incorporated into your hazard communication program?



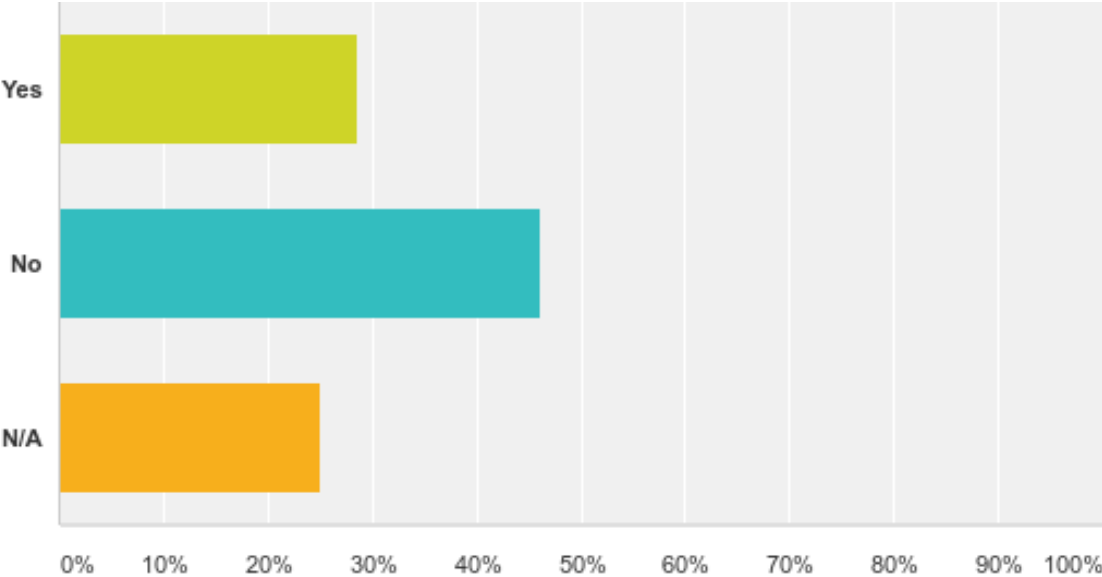
Comments:

- Sub-contractor is responsible
- In progress
 - Working with one or more local clinics/physicians
 - Determining who must be tested
- Unsure if requirement is applicable or how to comply
- Challenges: expensive, finding PLHCP

Comments:

- Always have
- Not yet
- In progress

Have you been keeping records of any air monitoring or objective data used to comply with the requirements of the standard?



Comments:

- No: no sampling performed or not planning to
- Challenges: costly, time consuming to perform sampling, finding approved labs

Challenges Associated with Air Monitoring

- Time
- Cost
- Staffing
- Feasibility
- Variability of environmental conditions

Compliance Challenges

- Training and education: employees, management, sub-contractors
- Monitoring/documenting exposure time
- Exposure from other trades
- Cost of retrofitting existing equipment to comply with Table I or purchasing new equipment
- Cost of fit-testing, medical surveillance, etc.
- Constantly changing workforce
- Recordkeeping requirements burdensome for small contractors/sub-contractors

Guidance Materials Needed

- Database for tasks not listed in Table I
- Database of objective data
- Shared air monitoring data
- Exposure control plan examples/templates
- Quick reference materials
- Condensed version of the standard and small entity compliance guide
- Guide to implementing the rule
- Air monitoring resources

Resources

- Silica Construction Standard Summary
- Webinar: OSHA's "New" Silica Standard
- Compliance Flowchart
- Air Monitoring and Objective Data Collection Form
- Silica Webpage
agc.org → Industry Priorities → Safety & Health → Respirable Crystalline Silica in Construction
- AGC Chapters Resources

Questions?

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