OSHA's Proposed Crystalline Silica Rulemaking Threatens US Foundry Industry

The Occupational Safety & Health Administration (OSHA) has proposed a major new regulatory structure for the control of crystalline silica, including drastically reducing the silica permissible exposure limit (PEL). Silica (quartz) is one of the most common minerals on earth and is essential for manufacturing, particularly for foundries, construction, agriculture and countless products.

This is one of the most comprehensive rulemakings the agency has ever undertaken with significant economic consequences to major sectors of the economy, including foundries, steel, brick making, maritime, and construction. OSHA received more than 2,000 public comments, including significant input from the U.S. foundry industry.

The foundry industry is particularly alarmed by the new requirements this regulation will place on the U.S. foundry industry and its projected costs. The proposed rule would significantly reduce the permissible exposure level (PEL) for silica in the workplace. It will also require implementing a host of prescribed engineering and work practice controls, as well as an array of ancillary provisions.

The U.S. foundry industry uses millions of tons of silica sand per year in the production of critical metal castings.. As proposed, the rule will force some foundries to close, shift production offshore, and impact the long-term productivity, profitability and competitive structure of the metalcasting industry. Simply put, OSHA's proposal is not technologically or economically feasible for the foundry industry OSHA's proposal will **ultimately cost the foundry industry more than $2.2 billion dollars annually**.

Every sector relies on metal castings (iron, steel and aluminum). In fact, 90 percent of all manufactured goods and capital equipment incorporate engineered castings into their makeup. We provide castings to a wide variety of industries, including, but not limited to: national defense, automotive and light truck, renewable energy processes, aerospace, medical, agriculture, construction, railroad, electric transmission, oil and gas, and water infrastructure.

Foundries are also the mainstay of national defense. All sectors of the U.S. military are reliant on metal castings for submarines, jet fighters, ships, tanks, trucks, weapon systems, aircraft carriers and other vital defense systems.

The American Foundry Society (AFS) has the following key concerns with OSHA's proposed Silica rulemaking:

- **OSHA Underestimates and/or Completely Omits the Cost of Equipment & Processes**
  Foundries will have to exhaust all feasible engineering and work practice controls to meet the new PEL. A one-size-fits-all solution does not work for our industry. Facilities may spend millions of dollars to implement engineering controls (through trial and error) and still not meet the new PEL.
- **Drastically Understates Costs to Comply—Exceeds 9% of Industry's Revenue**
  OSHA's estimated cost of the silica proposal for the foundry industry is $43 million; however, independent economic analysts projected the cost to be more than $2.2 billion annually. This represents 9.9% of the foundry industry's revenue and 276% of its profits. The economic impact will disproportionately affect small foundries.
- **Prohibits Certain Work Practices Which Contradict Existing Industry Safety Practices**
  OSHA bans dry sweeping, compressed air and employee rotation as control methods. For many foundries, compressed air is the only feasible method to clean complex castings. Wet methods can damage equipment and create a significant explosion risk where molten metal is present.

- **Deficiencies in Commercial Lab Analytical Accuracy for Silica Air Samples** Substantial evidence cited by OSHA and other independent parties indicates that many commercial laboratories cannot, with the necessary accuracy and consistency, measure workplace silica levels that employers need to assess their compliance, particularly at the new proposed PEL and action level. In addition, costs go up dramatically as you try to control at lower and lower levels (so the consequences of poor lab results—i.e., under-controlling in response to false-negatives and over-controlling in response to false-positives—increase exponentially as exposure limits decrease).

By way of background, AFS is the major trade and technical association for the North American metalcasting industry. We have more than 8,000 members representing over 2,000 metalcasting firms, their suppliers and customers throughout the U.S. The American metalcasting industry provides employment for over 200,000 men and women directly and supports thousands of other jobs indirectly. Approximately 80 percent of U.S. metalcasters have fewer than 100 employees.

AFS is committed to a silica regulatory policy based on sound science that protects its workers, is technologically and economically feasible, and does not impose compliance costs that far exceed its expected benefits.

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