

OSHA finalizes Crystalline Silica dust controls for metal casting: what you need to know

The U.S Department of Labor's Occupational Safety and Health Administration (OSHA) finalized its crystalline (quartz) silica rule that reduces the permissible exposure level (PEL) from the current 100 µg/m³ to 50 µg/m³, with an action level of 25 over an eight-hour time period. The rule was formally published in the Federal Registrar on March 25, 2016 and will be effective in 90 days. The metal casting industry continues to provide input and recommendations in support of foundries.

According to a Modern Casting report, here are just some of the industry concerns about the final ruling:

- it requires workplaces to develop a comprehensive written exposure control plan;
- it mandates the installation of engineering and workplace controls, whether or not they are effective, over the use of personal protective equipment (PPE) such as respirators;
- it continues to prohibit job rotation as a method of compliance.

"Meeting the current PEL for silica (100 micrograms per cubic meter) is currently a real challenge for the U.S. metal casting industry," says Gradmatic President Ayton Grady. "This new rule, dropping the PEL by 50%, will create an uphill battle for metal casters to comply. But we can help them manage the migration when lining an induction melting furnace."

There are cost effective solutions and Gradmatic is ready to help.

Call or email us today to learn how our furnace lining solution can help you meet the needs of your foundry and be fully in compliance with pending legislation.

Gradmatic has you covered

While some in the metal casting industry worry about how regulations to control crystalline silica will affect their business, others can rest easy: they already count on the Gradmatic Refractory Installation and Vibration System.



Tests show our solution cuts respirable silica to levels already well below the U.S. Occupational Safety and Health Administration's (OSHA) permissible exposure levels.

If you have Gradmatic in your workplace, you are likely well in compliance with the proposed new rules. If you haven't, it's wise to explore your options now.

Frequently Asked Questions

At Gradmatic, we've been watching the OSHA regulation to control crystalline silica closely. Here are some of the questions we get asked about what the new rules will mean.

What immediate impact will this ruling have on metal casters?

Meeting the current PEL for silica (100 micrograms per cubic meter) is already a challenge for the metal casting industry. It is estimated that more than 30% of US facilities are noncompliant just in the area of furnace management. The PEL drop by 50% to 50 µg/m³ will create an uphill battle for all metal casting facilities to comply in all departments using crystalline silica in its operations. Further, when the recommendations become legislated, foundries will have just two years to implement engineered and workplace controls to comply rather than using the current provision of personal protective equipment.

How does the Gradmatic system help address these challenges?

Gradmatic's Refractory Installation System was invented more than 25 years ago to specifically redress silica overexposure when lining an induction-melting furnace. Test results for respirable silica have consistently measured 4-10 times below OSHA's PEL (40 µg/m³ to 10 µg/m³) when lining a furnace using Gradmatic's technology.

We already use Gradmatic equipment. Do we need to do more to comply with the pending legislation?

Customers currently using the Gradmatic system should ensure that their equipment is running optimally, worn parts are regularly replaced and new workers are properly trained. Annual service calls can help achieve the optimal operating standard. As each foundry differs, there may be more you need to do to ensure total compliance with the extensive new rules, but at least you are cutting your silica dust levels to levels considered safe by OSHA when lining melting furnaces.

The bottom line

When this new legislation passes, Gradmatic users can comply with current and future silica level controls, provided their equipment is in good operating condition and used according to manufacturer training. If your business requires furnace-lining solutions and you are concerned about meeting new silica controls, call us.



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