

Silica Dust: Strategies for Compliance and Effective Control Plans

Webinar Q&A

1. Can HEPA vacuums collect wet material?

Yes, we have quite a broad offering at Nilfisk of HEPA filtered vacuums that can collect wet material. As a matter of fact, a lot of the vacuums do not require a filter change to collect between wet and dry pick-up. However, you should check with the vacuum manufacturer. Some manufacturers require you to add a pre-filter or even actually change out certain filters for wet pick-up versus dry pick-up.

2. Do you have to use the vacuum with a bag?

Some vacuums do work best with a bag, but they're not required to have a bag. Really, the reason why you would have a bag in a vacuum is to assist you in collecting your material and disposing of the material. The use of a bag helps minimize the pluming of dust and exposure to your workers. A bag also makes it much easier to empty the collection container. A bag can be cinched with a wire tie, by tying a knot or duct taping it shut.

3. What will OSHA inspectors be looking for?

I tried to ask some of my clients and other business colleagues if they had any OSHA inspections related to silica yet, and no one is talking yet. I don't have specific information from out in the field, but from my general take, the most contentious part would be evaluating worker training.

Making sure there's a competent person on the site that's designated to handling respirable crystalline silica, this includes the topic, the program and worker training. OSHA inspectors may interview the workers directly. I think OSHA is going to look for demonstrated knowledge on the part of the competent person. They're going to want to see that they're actually able to answer specific questions about the standard and the employers program. This will also trickle down to the worker's conducting the tasks too; if you're on a job site where you're doing work creating a dust cloud or doing work disturbing a concrete surface, be ready for questions from a compliance officer.

Workers could be asked about training that they've had, when their last hazcom training was, when their training on silica was and what do they specifically know about it. Do workers know about silicosis and that there's three different kinds and do they understand the synergistic impact of smoking with silica exposure? These are the things the compliance officer will be looking for, because the standard really does lean heavy on worker involvement, worker training, and understanding why they're using what they're using, as far as engineering and work practice controls.

I think the other part that will be interesting to see how it plays out, is the multi-employer worksite issue. Making sure that they can demonstrate that other people, other crews are allowed in respirable silica potential exposure areas and how that's actually being done. They need to be talking about it in coordination meetings, postings or other types of work practice controls.

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4. How do I properly dispose silica dust once it's collected?

The actual disposal of the material is going to be up to the company or organization that's collecting it. A recommendation would be to check with any regulations that may apply to your specific jobsite or perhaps the contract construction documents may even address disposal of the material. Keep in mind that silica dust is considered a carcinogen, so all applicable local, state and even federal laws will dictate what happens and they vary from state to state, sometimes from municipality to municipality. If the material is going to be collected in a bag, a continuous bag or Longopac bag, available on some Nilfisk vacuum systems would be a good option. You're tying that in a knot on both ends, sealing it would be advisable if it's not a continuous bag. If not a continuous bag, then a wire tire or duct tape will reduce any future exposure or potential for tearing.

5. Do you have a list of power tools that can be used with your vacuums and do you offer adapters?

We have adapters that will fit a variety of shrouds that would be used on grinding tools, cutting tools and some drilling materials as well. We don't have specific shrouds for specific tools, but we have adapters for the hose to fit over, which would then fit into a variety of different types of shrouds.

6. Has OSHA given any clarification on what would constitute a "good faith effort" to meeting the new standard?

The good faith effort refers to a memo that OSHA published on September 23 when the delayed date of enforcement for everything in the silica standard, except for the lab sampling and analysis went into effect. OSHA published this memo and said that they're going to give you another 30 days as long as good faith efforts are being made. OSHA would not give you a citation as long as these efforts were noticeable for 30 days prior to September 23.

I could only guess and say that if you had a written exposure control plan that was started or was actually in place, or if you had training conducted or training scheduled, if you had equipment on-site like HEPA filtered vacuums or wet attachments for the tools or had them on order, that those could possibly be considered good faith efforts. However, without specific instructions from OSHA on what those actually are, I can only speculate on what the good faith efforts would be.

Potentially there could be another memo on October 23 that would say something else about enforcement. I'm sure a lot of colleagues in the construction industry may be waiting for October 23 as the real effective date of the standard and may be awaiting some communication from OSHA.

7. How would you measure cubic feet of airspace if working outdoors?

From a practical standpoint, if you can see dust being generated, that dust could should be addressed through some type of dust containment system. Table 1 mainly talks about indoor applications where you could calculate how many cubic feet you have in the area.

8. Will there be forthcoming regulations for drywall dust in enclosed areas?

If you suspect there is potential for respirable crystalline silica exposure based on the Safety Data Sheet or other product information related to the drywall, you should conduct exposure monitoring according to the standard to identify what controls you need to have in place.

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9. Can Table 1 be established when combining different brand tools with another brand of vacuum?

Most of the engineering controls in Table 1 solutions specify an integrated water supply or commercially available shroud and dust collection system. The intent of OSHA, with these descriptions in Table 1, was to eliminate job site made, or do it yourself type methods. There is no requirement in Table 1 that all system components be provided by the same manufacturer. For tasks performed that are outside of Table 1, exposure data will most likely be based on specific system components used to develop the exposure data.

10. In order to determine the need to use Dust Collection equipment, one must be able to test / measure the PEL level. Is there a portable instrument available to accomplish this necessity?

Yes, there are instruments available to conduct exposure monitoring related to respirable crystalline silica. Check with an industrial hygiene firm or your insurance carrier or broker for resources. There are pump loan programs available in which you would rent a calibrated instrument, collect samples per instructions, and return to a third party lab for analysis.

If your task is listed on Table 1, you do not need to do further exposure monitoring if you are able to "fully and properly implement" the controls specified in Table 1.

11. It was mentioned that any given company and / or job site needs a "Competent Person" as it relates to RCS, how does one obtain this certification?

As with other standards requiring a competent person, the three part definition of Competent Person applies to RCS as well: the competent person must be 1) designated by the employer based on 2) skills, knowledge, and experience with the 3) authority to take corrective actions including stopping work to ensure safe conditions are met. There is no third party certification available for this, however there is third party training in addition to training you can provide for your personnel in-house according to the standard.

12. What is the need/opportunity to sell large walk behind vacuums for job site cleanup situations? Is there any need if all sub-contractors are Table 1 compliant?

This question seems to be aimed at the need for housekeeping even in areas where workers were complying with Table 1 engineering controls for respirable crystalline silica (RCS) dust generating tasks. The action level for exposure to silica dust is an 8 hour time weighted average of 25 micrograms per cubic meter. The maximum exposure level is 50 micrograms per cubic meter as an 8 hour time weighted average. Over a period of time and repetitive dust generating tasks, the RCS in the air, (below the permissible exposure limit), will settle and accumulate on horizontal and vertical surfaces, along with other types of dust. Housekeeping measures and equipment such as walk behind vacuums or more portable handheld vacuums would be able to capture this accumulated RCS dust. If the accumulated dust were to become airborne through dry sweeping, brushing or compressed air blowing, the concentration of RCS in the air could become higher than the permissible exposure limit. The standard promotes the use of wet methods and HEPA vacuuming for housekeeping activities.