

Frac Sand Plants Now to Meet OSHA's New Silica Exposure Rules

Sy-Klone International is Ready to Help



OSHA announced a final rule on March 24, 2016 to improve protections for workers exposed to respirable silica dust. According to the agency, the silica rule will curb lung cancer, silicosis, chronic obstructive pulmonary disease, and kidney disease in workers by limiting exposure to respirable crystalline silica.

OSHA issued two standards to protect workers from exposure to respirable crystalline silica (RCS) — one for construction, and the other for general industry and maritime — in order to allow employers to tailor solutions to the specific conditions in their workplaces.

KEY PROVISIONS

- **Reduces the permissible exposure limit (PEL)** for respirable crystalline silica to 50 µg/m3, average over an 8 hour shift.
- **Requires employers to:**
 - **use engineering controls (such as cab pressurization, settled dust removal and high efficiency filtration (minimum MERV16) to limit worker exposure to the PEL.**
 - provide respirators when engineering controls cannot adequately limit exposure.
 - develop a written exposure control plan.
 - provide medical exams to highly exposed workers.
 - train workers on silica risks and how to limit exposures.
- **Provides flexibility to help employers, especially small businesses, protect workers from silica exposure.**

Sy-Klone's Air Quality Systems for Cabs & Enclosures

Meet OSHA's engineering control requirements

3 STEPS TO A COMPLETE CAB AIR QUALITY SYSTEM:

1 Fresh Air Precleaning, Pressurization & Filtration



RESPA®-CF
Vortex HyperFLOW®

- Powered Precleaner removes 90+% of dust BEFORE it reaches the filter, and delivers positive airflow to pressurize cabin.
- Only clean air is delivered to HVAC system, reducing expensive repairs.
- Standard and Extended Length systems available
- More compact than RESPA-CF2.

OR



RESPA®-CF2
Vortex HyperFLOW®

- All the features of the RESPA-CF, plus:
- 36 outlet rotation positions, every 10 degrees. Outlet can be easily rotated after installation.
 - New mounting system.
 - More filtration options.
 - Less compact than RESPA-CF

2 Recirculation Filtration reduces accumulation of Settled Dust



RESPA®-FFX2
High Efficiency HVAC Filtration

- Protect operator from harmful particulate.
- Prevent expensive HVAC repairs and protect cab electronics.
- Recommended when you can plumb directly into the HVAC plenum.

OR



RESPA®-CFX
Vortex HyperFLOW®

- Continuous, powered recirculation air purification.
- Expands recirculation filtration options when you cannot plumb into HVAC plenum.
- MERV16/F9 self-cleaning filter and HEPA/H13 filter options.

3 Pressure Monitor



- Essential part of the System.
- Alerts when cab pressure drops below user-set minimum.
- If cab is sealed and alerts continue, it's time for filter change.
- Outputs signal for remote monitoring.

Sy-Klone's Electronic Pressure Monitor System meets or exceeds compliance for pressure monitoring device for:

- CE Compliant (EU)
- Canadian OSHA
- MSHA (USA) underground mining applications
- AIQH (Australian Institute of Occupational Hygienist)
- Health Safety Executive (UK-AG7,CN8, CN11) Recommended Device



RadialSHIELD™

HIGH EFFICIENCY FILTRATION

- NEW! Odor/HEPA
- MERV16
- NEW! ABEK1 Gas/HEPA
- HEPA

