REAL-TIME DUST MONITORING SOLUTIONS FROM TSI

MEETING THE REAL-TIME CHALLENGES OF THE NEW OSHA SILICA STANDARD

UNDERSTANDING, ACCELERATED

REAL-TIME DUST MONITORING AND COMPLIANCE TO OSHA'S SILICA STANDARD

The new OSHA standard for the Permissible Occupational Exposure to Respirable Crystalline Silica has many in the construction industry scrambling. Understanding the new standard, its requirements and setting up a plan for achieving and maintaining compliance can be daunting.

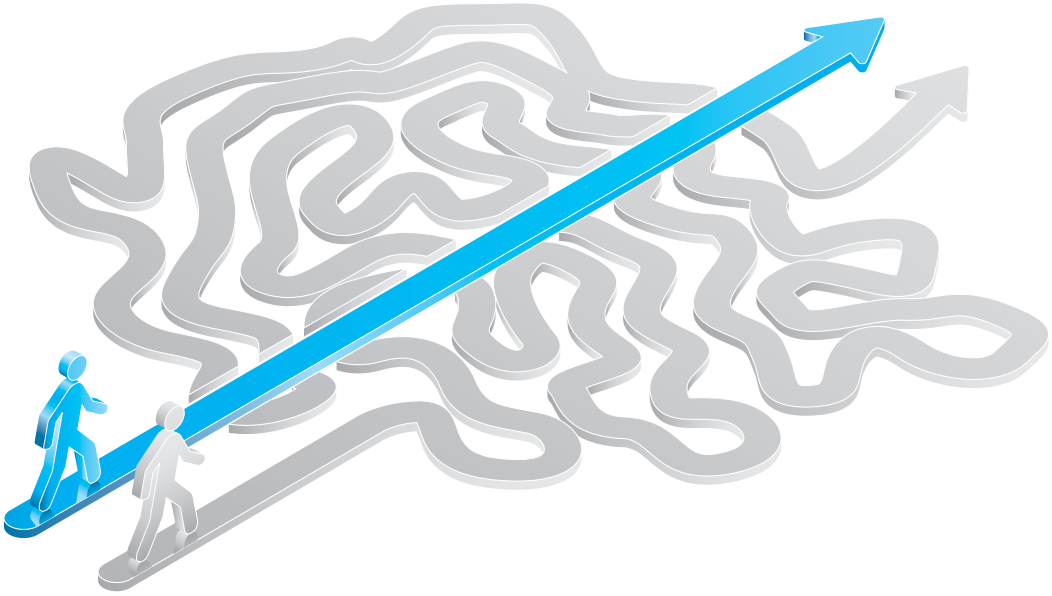
The new Permissible Exposure Limit (PEL) along with the new "Action Level", present new challenges for construction companies to monitor, control and reduce worker exposure to respirable silica.

Direct reading, real-time instruments from TSI will allow you to easily measure respirable silica dust for employee exposure assessments, validating corrective actions and performing repetitive sampling in real-time while saving time and reducing costs.

NEW OSHA STANDARD FOR RESPIRABLE SILICA
PEL = 50µg/m³ at 8hr. TWA
Action Level = 25µg/m³ at 8hr. TWA

NAVIGATING THE NEW OSHA SILICA STANDARD– A FASTER PATH TO COMPLIANCE

From Table-1 compliance through the Alternative Exposure Control Methods, TSI real-time monitoring technology provides a faster pathway to compliance, cost savings and improved safety along the way. Gain confidence in your gravimetric lab results before taking the final samples.



MEASURING RESPIRABLE SILICA DUST IN REAL-TIME

Under the new OSHA standards companies and facilities may have to monitor respirable silica frequently to reach and maintain compliance while protecting employees from silica exposure.

Traditional gravimetric sampling is required for reference samples, however lab processing takes time, is costly and does not provide exposure data needed to make fast corrective actions.

TSI manufactures a broad line of real-time dust measurement instruments that can help reach and maintain compliance to the new silica standard in less time and for less cost.

REAL-TIME DUST MONITORING PROVIDES REAL-TIME ADVANTAGES:

+ Reduced Set-up and Sample Collection Times:
Real-time dust measurements can collect 'representative' samples in far less time than traditional gravimetric sampling.

+ Fast Corrective Action: Achieve in Hours or Days
What typically takes weeks or even months to complete using only gravimetric sampling. Real-time monitoring provides instant and actionable exposure data.

+ Real-Time Sampling Allows for Frequent Repetitive Monitoring
Repeated testing required by several sections of the OSHA standard.

+ Real-Time Data-logging
Provides employers with an exposure 'data trail' of employee exposure levels including alarm conditions for post-test review and pinpoint analysis of exposure during an entire work shift.

+ Instant Alerts and Exposure Data
Real-Time monitoring provides immediate results to make decisions, take corrective actions and validate those actions so further adjustments can be made.

+ Reduced Worker Exposures
Keeps workers safe through accurate, immediate feedback of workplace conditions while saving your company money.

SAMPLING METHOD COMPARISON

The diagram below illustrates the potential time and cost savings through real-time monitoring. More cycles maybe required to make and validate corrective actions before compliance of the new OSHA standard is met.

Gravimetric Sampling: 17-31 Days
Two rounds of sampling to prove compliance (repeat until in compliance)

Send Samples to Lab for analysis
7-Days

Collect Dust Sample to Validate
1-Day

Take Corrective Actions:
1-Day

Send Samples to Lab for Analysis:
7-Days

(Sample comes back showing over exposure to Silica Dust - Formulate action plan)

Collect Dust Sample:
1-Day

Real-Time Monitoring Involves:

Real-Time Monitoring: 11-18 Days
Two rounds of sampling to prove compliance

Send Samples to Lab for Analysis Knowing You are in Compliance
7-Days

Collect Dust Sample to Validate:
1-Day

Sample Dust in Real-Time to Validate Actions:
1-Day

Take Corrective Actions:
1-Day

Sample Dust in Real-Time:
Analyze Data 1-Day

* TSI Estimates, when using consultants

REAL-TIME DUST MONITORING SOLUTIONS FROM TSI

MEETING THE REAL-TIME CHALLENGES OF THE NEW OSHA SILICA STANDARD

						
Product Name	SidePak™ AM520 Personal Aerosol Monitor	DustTrak™ II Aerosol Monitor - Desktop	DustTrak II Aerosol Monitor – Handheld	Environmental DustTrak Aerosol Monitor	DustTrak Environmental Enclosure Model 8535	PortaCount® Respirator Fit Testers
Intended Application	Personal Exposure Monitoring of worker breathing zone as worker performs tasks	DustTrak II for work area monitoring with gravimetric sample cassette for developing custom calibration factors	Hand Held DustTrak for walk-through facility surveys and point source dust detection	Pole mounted for extended outdoor dust monitoring of fugitive dust along fence-lines, job sites and large outdoor areas	Tripod mounted for extended outdoor dust monitoring of fugitive dust on job sites and large outdoor areas Portable and can be accessorized for long term outdoor monitoring in all weather	Quantitative fit testing of all types of full-face, half-face and filtering face-piece respirators
Key Features	+ Small, lightweight with belt-clip + Exposure alarms and alerts + Data logging and report creation software + 12 hour run-time batteries	+ Desktop design + In-line gravimetric sample collection + Alarms + 20 hour continuous data logging + Report creation software	+ Convenient hand-held, portable design + Real-time dust monitoring + Continuous Data logging w/ single data point capture + Durable and precise	+ Respirable dust in real-time + Near-reference precision and accuracy + Wireless/cloud connectivity + Long term - 24hr. outdoor all-weather monitoring + High concentration levels	+ Respirable dust in real-time + Portable + Wireless/cloud connectivity + Long term - 24hr. Outdoor all-weather monitoring + High concentration levels	+ OSHA (US)-compliant for most all respirators + Easy-to use touch screen + Stand-alone operation + Allow for fit testing employee's own mask

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