

Meet Today's Webinar Team



Presenter: Laurelle Bednar

Laurelle is a training consultant for Texas Mutual's safety services department. She conducts webinars, presentations and creates e-Learning content for our policyholders and internal departments. Laurelle holds a bachelor's and master's degree in anthropology from California State University Fullerton.



Presenter: Ashley Mikytuck

Ashley is a technical writer for Texas Mutual's safety services department. She joined the safety services support center in early 2015 as a safety representative and is now assisting the department with written safety content. Ashley holds a bachelor's degree in urban studies from the University of Texas.



Moderator: Hannah Bolton

Hannah is a safety services representative for Texas Mutual's safety services support center. She provides internal support for the safety services department, and provides policyholder support by answering questions through our worksafe number. Hannah has a degree in Communications from Texas A & M University, Corpus Christi.

OSHA's Silica Standard

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WORK SAFE, TEXASSM



Agenda

Silica 101

Regulatory
background

Employer
requirements

Agenda

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Regulatory
background

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Silica 101



Silica 101



Effects of silica exposure

Lung cancer

Silicosis

COPD

Kidney disease



Signs of silicosis



Chronic dry cough

Fatigue

Weight loss

Shortness of breath

Respiratory failure

Silica exposure



Silica standard timeline

OSHA submits draft of silica standard to OMB for review

April 2011

OMB review completed & OSHA announces proposed silica rule

August 2013

OSHA announces final rule

March 2016

Final rule takes effect,
enforcement scheduled to
begin June 23, 2017

June 2016

Enforcement date extended to
September 23, 2017

April 2017

Construction industry
enforcement date

September 2017

General industry and maritime enforcement date

The diagram features a vertical dark blue line on the right side. Two horizontal lines extend from this vertical line to the left, connecting to two orange rounded rectangular boxes. The top box contains the text 'General industry and maritime enforcement date' and the bottom box contains 'Hydraulic fracturing enforcement date'. To the right of the vertical line, the dates 'June 23, 2018' and 'June 23, 2021' are aligned with the top and bottom boxes respectively.

June 23, 2018

Hydraulic fracturing enforcement date

June 23, 2021

Key provisions

250 $\mu\text{g}/\text{m}^3$:

Previous PEL,
construction industry

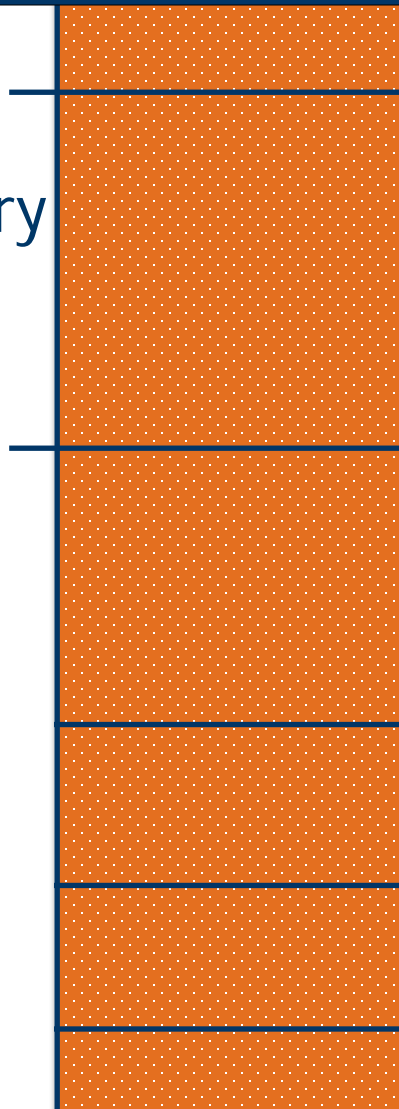
100 $\mu\text{g}/\text{m}^3$:

Previous PEL,
general industry

50 $\mu\text{g}/\text{m}^3$: PEL

25 $\mu\text{g}/\text{m}^3$: Action level

0 $\mu\text{g}/\text{m}^3$: No exposure



Employer requirements



Use engineering controls

Provide respirators if needed

Limit access to high exposure areas

Develop exposure control plan

Offer medical exams

Train workers on silica risks

What do you need to do?

Keep employees' silica exposure below $50 \mu\text{g}/\text{m}^3$



What do you need to do?

Do your company's operations expose workers to silica dust?

Yes

No

Do your operations expose workers to silica dust?



Glass & concrete products

Abrasive blasting

Painting & coating

Foundries

Dental laboratories

Jewelry production

What do you need to do?

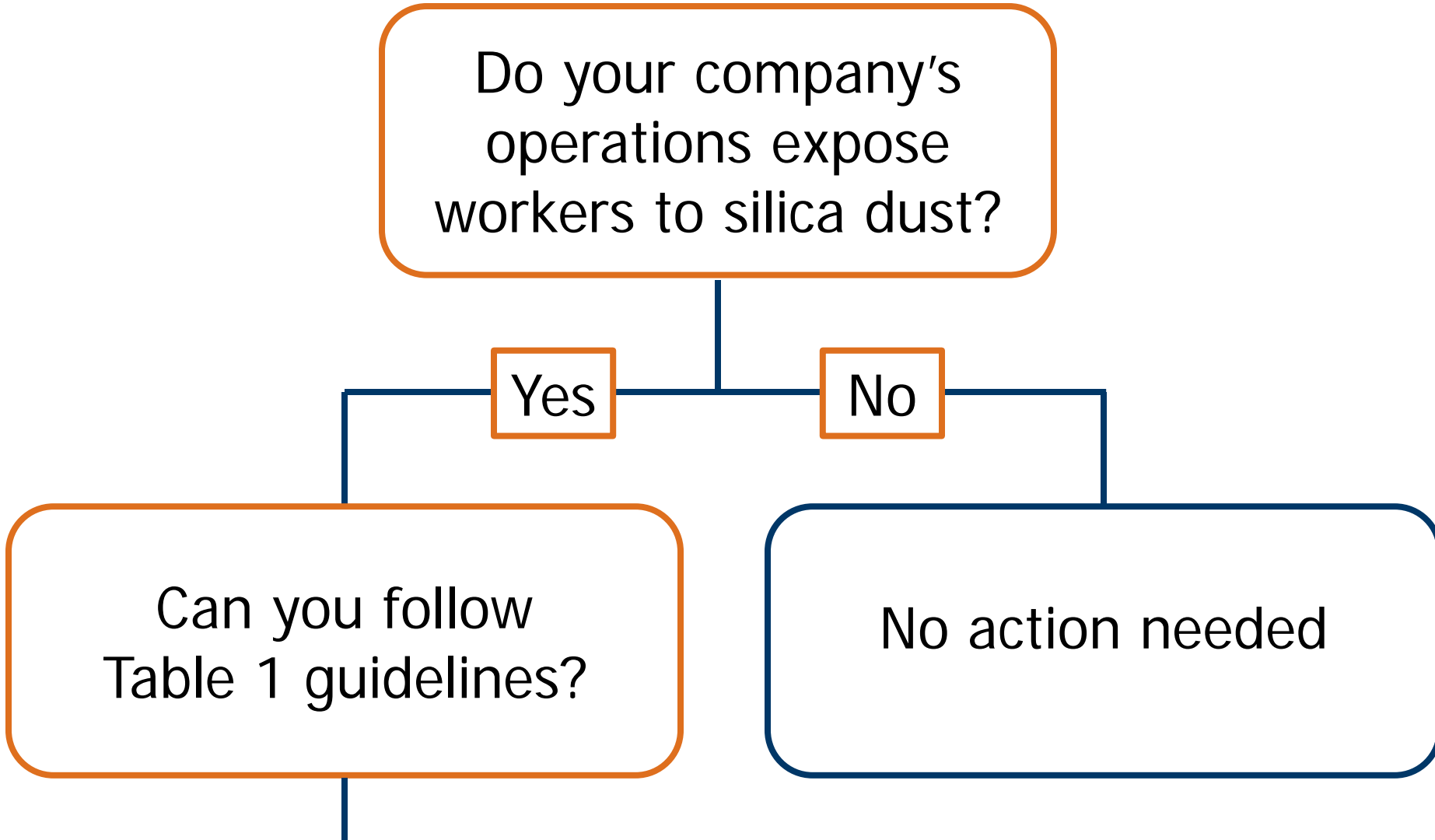
Do your company's operations expose workers to silica dust?

Yes

No

Can you follow Table 1 guidelines?

No action needed



Can you follow Table 1 guidelines?



Breathe Easier

Located in 29 CFR §
1926.1153

Lists OSHA-approved
exposure control methods

18 specific equipment/task
examples provided

Table 1

Equipment/ Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(i) Stationary masonry saws	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p>	None	None

Table 1

Equipment/ Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(ii) Handheld power saws (any blade diameter)	<p>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</p> <p>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <ul style="list-style-type: none"> – When used outdoors. – When used indoors or in an enclosed area. 	<p>None</p> <p>APF 10</p>	<p>APF 10</p> <p>APF 10</p>

Respiratory protection information

Table I: Assigned Protection Factors⁵

Type of Respirator ^{1,2}	Quarter mask	Half mask	Full facepiece	Helmet/Hood	Loose-fitting facepiece
1. Air-Purifying Respirator	5	10 ³	50	—	—
2. Powered Air-Purifying Respirator (PAPR)	—	50	1,000	25/1,000 ⁴	25
3. Supplied-Air Respirator (SAR) or Airline Respirator					
• Demand mode	—	10	50	—	—
• Continuous flow mode	—	50	1,000	25/1,000 ⁴	25
• Pressure-demand or other positive-pressure mode	—	50	1,000	—	—
4. Self-Contained Breathing Apparatus (SCBA)					
• Demand mode	—	10	50	50	—
• Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	—	—	10,000	10,000	—

APF chart available in
29 CFR 1910.134

Types of respirators

What do you need to do?

Can you follow Table 1 guidelines?

Yes

No

- Follow guidelines
- Create exposure control plan

Exposure control plan elements



Control measures in place

Housekeeping measure

Medical surveillance

Inform employees of overexposure

Post warning signs

Records of exams & air monitoring

Next steps

Can you follow Table 1 guidelines?

Yes

No

- Follow guidelines
- Create exposure control plan

Conduct initial monitoring. What are the results?

Initial air monitoring procedures



Choose a representative sample of employees

Provide personal dosimeters

Sample for eight hours

Send the samples to a lab

Next steps

<25 $\mu\text{g}/\text{m}^3$

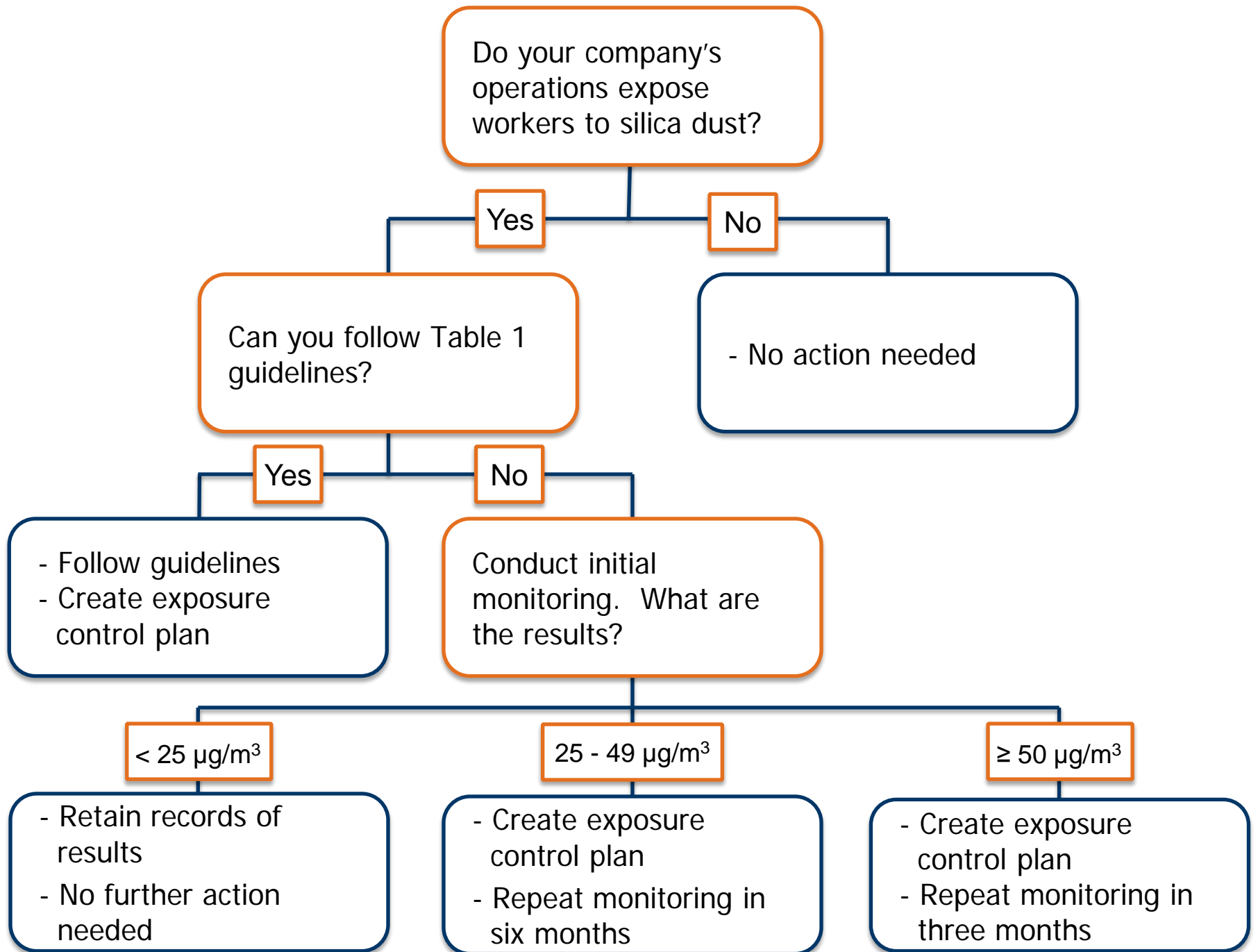
- Retain records of results
- No further action needed

25-49 $\mu\text{g}/\text{m}^3$

- Create exposure control plan
- Repeat monitoring in six months

≥ 50 $\mu\text{g}/\text{m}^3$

- Create exposure control plan
- Repeat monitoring in three months



Texas Mutual can help

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Safety programs

Safety training resources



Summary

Follow table 1
guidelines

Document
exposure
control plan &
air monitoring
results

Use your
resources

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Thank You

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