FILLING THE GAPS: ASSESSING MSHA'S SILICA DUST SAMPLING

APPALACHIAN CITIZENS' LAW CENTER

2025 TO 2026 Q1

KEY FINDING #1

20 percent of surface and underground mines sampled for silica exposure in 2025 had dangerous and toxic levels of silica dust.

KEY FINDING #2

At 12 mines, dust samples revealed exposure levels of more than double what was proposed as the permissible exposure limit in the 2024 silica dust rule

KEY FINDING #3

MSHA did complete mandatory inspections at all 89 active, underground coal mines in Q1 of 2026

INTRODUCTION

Since 2009, coal miners and their allies have pushed the federal government to implement a silica dust standard to prevent exposure to the silica dust implicated in the causation of severe forms of coal worker pneumoconiosis, or black lung disease. In April 2024, a silica dust rule was finally **issued**, with the coal industry given one year to comply. However, the Trump Administration and the mining industry took steps to halt the enforcement of the rule and in April of 2025, Trump's Mine Safety and Health Administration (MSHA) **announced** it would halt enforcement of the rule. Nearly simultaneously, the Eighth Circuit Court of Appeals put an indefinite **stay** on the rule after the mining industry took the rule to court and the administration failed to oppose the industry's petition. Since then, parties in the case, including Trump's MSHA, requested an abeyance on court action as MSHA agreed to weaken the rule to appease industry's complaints. Now that MSHA and the industry are in agreement, MSHA says they can't advance even the watered down rule while the court's stay is in place.

As the delays continue and no silica dust standard is in place for coal mines, we have assessed ongoing silica dust sampling by MSHA to better understand whether mines would be in compliance if the 2024 rule were in place. We have assessed silica dust sampling at coal mines since the intended effect date of the rule in April 2025 and compared results to the standards set in the delayed rule. For 2025 and Q1 of 2026, we examined how many silica samples exceed the action level of 25 micrograms per cubic meter (µg/m3) in the stayed rule that would require mine operators to sample silica dust quarterly and those that exceed the permissible exposure limit of 50 µg/m3. We have also examined the number of coal mines returning samples indicating extremely high silica exposure over 100 µg/m3.

MSHA is required to inspect each underground coal mine four times a year and each surface mine twice a year for health and safety compliance. Due to staff reductions and office closures at MSHA that occurred during 2025 and statements made by Assistant Secretary of MSHA Wayne Palmer regarding the thin capacity of inspectors at the agency, we have also assessed whether MSHA has been able to complete all mandatory inspections at active, underground coal mines in the first quarter of 2026. We also document the number of and severity of the types of violations being issued.

All data was retrieved from MSHA's Mine Data Retrieval System on April 8, 2026.

TABLE 1: SILICA SAMPLING AT COAL MINES IN 2025, APRIL-DECEMBER

# of mines sampled for silica	# of silica samples	# of silica samples >25ug	# of silica samples >50ug	# of silica samples >100ug
389	4808	565	135	16

RESULTS

In our analysis, we found that 20 percent of surface and underground mines sampled for silica exposure in 2025 had dangerous and toxic levels of silica dust. During April - December of 2025, more than 4800 samples were collected from 389 mines. 77 of those mines provided 135 silica dust samples that revealed exposure to levels that would be considered toxic under the 2024 silica dust rule (Table 1). At twelve mines (3% of sampled mines), dust samples revealed exposure levels of more than double than what was proposed as the permissible exposure limit in the 2024 silica dust rule (Table 2).

In 2026, thus far, we find that MSHA did complete mandatory inspections at all 89 active, underground coal mines in Q1 of 2026 (Table 3). They issued 2,895 violations, of which 16% were significant and substantial (Table 3). There were twelve mines with more than ten significant and substantial violations (Table 4).

TABLE 2: MINES WITH SILICA SAMPLES > 100 MICROGRAMS/M3 IN 2025, APRIL - DECEMBER

Mine Name	Location	# of Samples in Exceedence
Shoal Creek Mine	Walker, AL	2
Foidel Creek Mine	Routt, CO	2
Bear Branch 2	Perry, KY	2
Stockton Mine	Luzern, PA	2
Mine #4	Pike, KY	1
No. 4 Woodyard Job	Garrett, MD	1
Good Spring South	Schuylkill, PA	1
SUFCO	Sevier, UT	1
Speed Mine	Kanawha, WV	1
Twilight MTR surface	Boone, WV	1
Jerry Fork Eagle	Nicholas, WV	1
Mine No. 44	Mcdowell, WV	1

In total, 850 silica dust samples have been collected so far in 2026. Of those, 19% exceeded 25 µg/m3, 4% exceeded 50 µg/m3, and 0.8% exceeded 100 µg/m3 (Table 5). Similar to 2025, 20% of sampled mines (sixteen mines total) returned silica dust samples that exceeded the 50µg/m3 threshold (Table 6) and six mines (7% of sampled mines) had dust samples that exceeded the 100 µg/m3 threshold (Table 7).

TABLE 3: INSPECTIONS AT ACTIVE UNDERGROUND COAL MINES AND NUMBER AND SEVERITY OF VIOLATIONS ISSUED DURING Q1 OF 2026

# of active, underground coal mines	**# of Completed Inspections**	**# of onsite hours spent on inspections**	**# of violation s issued**	**# of significant & substantial violations**	**# of 104(b)** *failure to fix 104(a) in allotted time*
89	89	27,554	2,895	454	2

# of 104(d)(1) *A sig. and sub violation caused by unwarrantable failure of a mine to comply with a safety standard*	**# of 104(d)(2)** *Serious, repeated, gross negligence that causes a shutdown*	**# of 107(a) orders** *An imminent danger order that forces immediate withdrawal of miners*	**# of violations issued related to respirable dust standards and sampling procedures***
6	0	2	40

***PART 70, 71, AND 90 VIOLATIONS**

These silica dust samples were collected from 81 of the 89 active mines (Table 5). The eight unsampled mines have gone anywhere from 3 months to over a year without having been sampled for silica dust (Table 8).

TABLE 4: MINES WITH >10 SIGNIFICANT AND SUBSTANTIAL VIOLATIONS, DURING Q1 OF 2026

Mine Name	Mine Location (county, state)	# of Violations
Mountaineer II Mine	Logan, WV	34
Buchanan Mine #1	Buchanan, VA	25
Road Fork #52 Mine	Wyoming, WV	24
Beckley Pocahontas Mine	Raleigh, WV	22
Affinity Mine	Raleigh, WV	22
Cumberland Mine	Greene, PA	19
Lower War Eagle	Wyoming, WV	19
Marshall County Mine	Marshall, WV	17
Marion County Mine	Marion, WV	15
Leer South Mine	Barbour, WV	12
Maple Eagle No. 1 Mine	Fayette, WV	12
Michael Powellton Deep Mine	Logan, WV	11

TABLE 5: SILICA DUST SAMPLING AND ASSOCIATED EXPOSURE LEVELS AND CONCENTRATIONS, Q1 OF 2026

# of active, underground coal mines	# of active, underground coal mines sampled for silica	# of silica samples	# of silica samples >25ug	# of silica samples >50ug	# of silica samples >100ug
89	81	850	164	33	7

CONCLUSION

Silica dust exposure is the driving factor behind the resurgence of black lung disease in central Appalachia, and the lack of a strong federal silica dust standard has put the lives of countless miners at risk. Now, MSHA's own data shows that dozens of mines would be out of compliance with the rule that was to be implemented in 2025 before the Trump Administration's involvement and subsequent indefinite delays. With 20% of active mines registering toxic levels of silica dust exposure for miners based on MSHA's own samples in 2025 (and 20% thus far within underground mines in 2026), the need to end these delays and implement a strong silica dust standard is clear. According to the now-delayed rule finalized in 2024, samples breaching the 50 $\mu g/m^3$ threshold would trigger immediate corrective measures to reduce dust and additional sampling to ensure that corrective measures reduced dust levels to a state of compliance with the permissible exposure limit of 50 $\mu g/m^3$.

With MSHA's own samples showing imminent danger for miners, every day of delay creates a greater likelihood of silica dust exposure that can cause black lung and cost miners their lives. As the rule remains unenforced, ACLC will continue to monitor miner overexposures to silica dust.

AUTHOR'S NOTE

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Appalachian Citizens' Law Center (ACLC) is a public-interest law firm and policy organization based in Whitesburg, KY. ACLC fights for miner health & safety, environmental justice, water and energy equity, and flood and climate resilience. We combine legal advocacy, policy work, and community partnerships to help citizens engage in and influence the systems that shape their lives.

TABLE 6: MINES WITH SILICA SAMPLES > 50 MICROGRAMS/M3, Q1 OF 2026

Mine Name	Mine Location (county, state)	# of samples in exceedance
Panther Eagle Mine	Raleigh, WV	6
Excel #5	Pike, KY	4
Oak Grove Mine	Jefferson, AL	4
Rolling Thunder Mine	Nicholas, WV	3
West Elk Mine	Gunnison, CO	3
No 7 Mine	Jefferson, AL	2
Speed Mine	Kanawha, WV	2
Trace Branch Splint Mine	Harlan, KY	1
Affinity Mine	Raleigh, WV	1
Kingston No. 2	Fayette, WV	1
Mine #4	Pike, KY	1
Leer Mine	Taylor, WV	1
Longview Mine	Barbour, WV	1
Black Eagle	Raleigh, WV	1
Itmann No 5	Wyoming, WV	1
Coal Branch No. 2	Wyoming, WV	1

TABLE 7: MINES WITH SILICA SAMPLES > 100 MICROGRAMS/M3, Q1 OF 2026

Mine Name	Mine Location (county, state)	# of samples in exceedance
Oak Grove Mine	Jefferson, AL	2
Speed Mine*	Kanawha, WV	1
Rolling Thunder Mine	Nicholas, WV	1
Mine #4*	Pike, KY	1
Black Eagle	Raleigh, WV	1
Itmann No 5	Wyoming, WV	1

**also had high silica samples in 2025*

TABLE 8: MINES THAT WERE NOT SAMPLED FOR SILICA DUST, Q1 OF 2026

Mine Name	Mine Location (county, state)	Last date sampled
N & L Slope	Northumberland, PA	01/25/22
R S & W Drift	Schuylkill, PA	07/28/25
Kellerman	Tuscaloosa, AL	09/04/25
Cawood #1	Harlan, KY	11/14/25
Kingston Sewell	Fayette, WV	11/18/25
Caretta #3 Mine	McDowell, WV	11/25/25
No 1	McDowell, WV	12/11/25
Sewell Mine B	McDowell, WV	12/18/25