



BRIEFLY...

MSHA NEEDS TO IMPROVE EFFORTS TO PROTECT COAL MINERS FROM RESPIRABLE CRYSTALLINE SILICA

November 12, 2020

WHY OIG CONDUCTED THE AUDIT

More than three times as many coal miners were identified as having black lung disease from 2010 to 2014 compared to 1995 to 1999. The evidence indicates respirable crystalline silica may be responsible for this increase. The Federal Mine Safety and Health Act of 1977 (MINE Act) requires MSHA to set standards based on the best available evidence to protect miners from exposure to toxic materials or harmful agents. However, over the past four decades, various stakeholders have raised concerns about exposures to respirable crystalline silica – a carcinogen and contributing cause of black lung disease – in coal mines.

WHAT OIG DID

We conducted this audit to determine the following:

Has MSHA sufficiently protected coal miners from exposure to respirable crystalline silica?

To answer this question, we interviewed MSHA officials, subject matter experts, and representatives of other government agencies whose research and recommendations have been used to set respirable crystalline silica standards, among others. Our work also included reviewing regulations, studies, and MSHA data.

READ THE FULL REPORT

<http://www.oig.dol.gov/public/reports/oa/2021/05-21-001-06-001.pdf>

WHAT OIG FOUND

MSHA has not sufficiently protected coal miners from exposure to respirable crystalline silica. MSHA's current silica exposure limit is out of date, MSHA cannot cite and fine mine operators for excess silica exposures alone, and MSHA's sampling for silica may be too infrequent to be sufficiently protective.

MSHA's silica exposure limit is out of date. A significant body of evidence shows that lowering the silica limit would be a major factor in preventing coal workers' deaths and illnesses caused by silica exposure. Even though MSHA has known its silica limit did not align with current scientific recommended limits, it continued to maintain essentially the same silica limit established in the 1960s. As a result, workers in coal mines with silica levels above recommended limits continue to be at risk of developing life-threatening health problems.

MSHA cannot issue fines for excess silica exposures alone. Instead, MSHA's exposure limit for silica is tied to its exposure limit for respirable coal mine dust. Thus, violating MSHA's silica limit alone but not its coal dust limit, does not result in a citation or fine to deter future violations. A separate standard for silica would allow MSHA to issue citations and monetary penalties for violating its silica limit to better protect miners from this toxic mineral.

MSHA's silica sampling protocols may be too infrequent to be sufficiently protective. Since MSHA is required by the MINE Act to inspect underground coal mines quarterly and surface mines semiannually, MSHA only sampled mines for silica levels during these periodic inspections. However, silica levels fluctuate frequently. Changes in geology and movement of personnel within mines mean that miners' exposure to silica may change on a daily, if not hourly basis.

WHAT OIG RECOMMENDED

We made three recommendations to the Assistant Secretary for Mine Safety and Health.

The Assistant Secretary did not fully agree with our recommendations, but indicated MSHA will take corrective actions to address them.