

On-Shift Examination of Respirable Dust Controls at Underground Coal Mines

Health Hazard Information Sheet 40

U.S. Department of Labor
Mine Safety and Health Administration



The dust control portion of the approved ventilation plan, which must be implemented before production begins, is a key element of the mine operator's dust control strategy. Protecting miners' health requires a work environment free of excessive dust levels. MSHA standards require ventilation plans to be effective in controlling respirable dust and to be suitable to the particular mining conditions and mining system in use at the mine. These plans specify the particular dust control measures, i.e., "dust control parameters," that must be used.

Consistent with the Mine Act, dust controls are primarily environmental or engineering controls that specify the quantity and velocity of the air current used to ventilate the mechanized mining unit (MMU); the number, type, and location of water sprays; the pressure and quantity of water delivered by the sprays; and dust scrubbers or devices that collect mine air and filter out dust particles. Dust control parameters may also include specific work practices to supplement the dust controls as well as procedures for the upkeep of dust control equipment used on the mining machine and roof bolter.

Operators must monitor the operation of required dust control parameters through required on-shift examinations. On-shift examinations are essential to ensuring that the dust controls are maintained in working order on every production shift.

MSHA prepared this information to assist miners and coal mine operators in being fully compliant with the on-shift examination requirements and dust control plans. It will help miners better understand these requirements. Everyone can use this information as a guide to **ACT NOW** and **END** Black Lung.

Who Conducts the Examination?

- Person(s) designated by the operator who must:
 - *be familiar with the dust control parameters specified in the mine's ventilation plan.*
 - *have the appropriate tools (pressure gauge, anemometer, etc.) available and be familiar with their proper use.*

- This person may be a miner operating specific mining equipment such as the continuous miner or the roof bolter.

Where and When Must the Examination Be Conducted?

- On each section, before production begins, following a shift change that interrupts production.
- On each section, within one hour of a shift change if the shift change is accomplished without interrupting production, i.e., “hot seating.”

What Controls Must Be Examined?

- Air quantities and velocities.
- Water pressures and flow rates.
- The water delivery system—check for leaks.
- Water sprays—check number, location and condition.
- Section ventilation setup and control device placement.
- Other control measures specified in the ventilation plan:
 - *cleaning of machine-mounted dust scrubbers.*
 - *checking scrubber air inlets and discharges for plugging.*
 - *measurement of scrubber air quantity.*

Action to Take if Deficiencies in Controls Are Found

- Correct them before production begins.
- Correct them before production continues when “hot seating.”

Who Certifies That the Examination Was Made?

- The certified person who either conducted or directed the required on-shift examination must certify by initials, date, and time that the examination was thoroughly conducted.

--REMEMBER--

Black lung is NOT curable, but it is preventable!

If you have questions about coal mine health matters, please contact your local MSHA office or see the MSHA website at www.msha.gov.