

MSHA's Proposed Rule on Lowering Miners' Exposure to Respirable Dust, Including Continuous Personal Dust Monitors

This PowerPoint is a briefing tool only. The briefing covers MSHA's proposed rule and will not address the Agency's rationale for any provisions, nor answer related questions. Please review the proposed rule as published in the Federal Register on October 19, 2010.

MSHA encourages all parties to participate in the rulemaking process, including the public hearings. The comment period closes February 28, 2011. Please submit your comments through any of the methods listed in the Federal Register:

<http://www.msha.gov/REGS/FEDREG/PROPOSED/2010Prop/NPRM-Oct%2019%202010%20-%202010-25249.pdf>

Regulations Modified

- Part 70 (Underground coal mines)
- Part 71 (Surface coal mines/facilities)
- Part 90 (Miners with lung disease)
- Part 72 (Compliance determinations, Medical monitoring, Respiratory protection)
- Part 75 (Ventilation, Ventilation plan, Dust control examinations)

Proposed New Definitions

- CMDPSU
- CPDM
- Equivalent Concentration
- MMU
- Normal Production Shift
- Representative Samples
- Weekly Accumulated Exposure
- Weekly Permissible Accumulated Exposure

Proposed Part 70/71/90 - Standards

- Lower the current 2.0 mg/m³ limit to:
 - ✓ 1.7 mg/m³ 6 months after effective date
 - ✓ 1.5 mg/m³ 12 months after effective date
 - ✓ 1.0 mg/m³ 24 months after effective date
 - ✓ Intake air
 - Lower the current 1.0 mg/m³ limit to 0.5 mg/m³ 6 months after effective date
- ✓ Part 90
 - Lower the current 1.0 mg/m³ limit to 0.5 mg/m³ 6 months after effective date

Proposed Part 70/71/90 Standards

■ Quartz

- ✓ Establish Quartz standard of 0.100 mg/m^3 ($100 \text{ }\mu\text{g/m}^3$)
- ✓ Reduced standard established based on
 - Exceeding $100 \text{ }\mu\text{g/m}^3$
 - Formula: 10 divided by percent quartz
 - No standard greater than the base standard

Proposed Part 70 Sampling

- CMDPSU for sampling at effective date
- CPDM 12 months after effective date for Designated Occupations (DO) sampling
- CPDM 18 months after effective date for Other Designated Occupations (ODO) sampling
- CMDPSU or CPDM may be used for Designated Area (DA) sampling

Proposed Part 70 Sampling

- Miners required to wear CPDM trained on unit prior to wearing and every 12 months
- All sampling will be full-shift, portal-to-portal
- Control filters required when sampling with CMDPSU
- Operator record length of each shift – maintain record for 6 months
- Operator record production for each MMU for each shift – maintain record for 6 months

Proposed Part 70/71/90 CPDM Performance Plan

- Developed by operator, approved by MSHA District Manager (DM)
 - ✓ Provide for review/comment by representative of miners
 - ✓ Posted on mine bulletin board
- Part 90
 - ✓ Confidential:
 - Not provided for review/comment by representative of miners
 - Not posted on mine bulletin board

Proposed Part 70 CMDPSU Sampling MMU

- 5 samples each bimonthly period on DO
- No single-shift CMDPSU equivalent concentration \geq the Excessive Concentration Value (ECV) in Table 70-1

Proposed Part 70 CMDPSU Sampling MMU

- When cited for excessive dust
 - ✓ Respirators available to affected miners
 - ✓ Operator submit corrective actions to DM for approval and then implement
 - ✓ Collect 5 valid samples after implementation
- Citation terminated after
 - ✓ Equivalent concentration of all 5 valid samples \leq standard
 - ✓ Revised ventilation plan incorporating the approved corrective actions
 - ✓ Revised ventilation plan approved by DM

Proposed Part 70 CMDPSU Sampling MMU – Exceed Standard

- Sample exceeds the applicable standard but is $< ECV$
 - ✓ Respirators available to affected miners
 - ✓ Take corrective action to reduce concentration
 - ✓ Record corrective actions in permanent record book same as 75.363

Proposed Part 70 Sampling MMU – CPDM

- Sample DO each production shift every day
- Sample ODOs (formerly DAs on MMU) each production shift for 14 consecutive days each quarter
- DOs, ODOs to be sampled specified in rule. Other ODOs may be designated by the DM

Proposed Part 70 Sampling MMU – CPDM

- No valid end-of-shift equivalent concentration \geq ECV in Table 70-2
- No weekly accumulated exposure (WAE) exceed the weekly permissible accumulated exposure (WPAE)

Proposed Part 70 Sampling MMU – CPDM

- When cited for excessive dust:
 - ✓ Respirators available to affected miners
 - ✓ Implement corrective actions to meet standard
 - ✓ Submit the corrective actions as a proposed ventilation plan revision for DM approval
 - ✓ Review the CPDM Performance Plan and submit any plan revision for DM approval
 - ✓ Record the excessive dust condition and corrective actions the same as 75.363

Proposed Part 70 Sampling CPDM – Exceeding Standard

- End-of-shift equivalent concentration exceeds applicable standard but is $<$ ECV in Table 70-2
 - ✓ Respirators available to affected miners
 - ✓ Implement corrective actions to lower concentration \leq standard
 - ✓ Record the excessive dust condition and corrective actions the same as 75.363
 - ✓ Review the CPDM Performance Plan and submit any plan revision for DM approval

Proposed Part 70

Inability to Comply with Standards

- Operator makes determination unable to maintain compliance with feasible engineering/environmental controls
 - ✓ May request approval to use supplemental controls up to 24 months after effective date of rule
 - ✓ Maximum period of approval – 6 months
 - ✓ Supplementary controls may include worker rotation in conjunction with monitoring with a CPDM

Proposed Part 70 Sampling DA

- Sample each DA 5 consecutive shifts each quarter
- CMDPSU
 - ✓ No single shift equivalent concentration \geq ECV in Table 70-1
- CPDM
 - ✓ No end-of-shift equivalent concentration \geq ECV in Table 70-2

Proposed Part 70 Sampling DA -

- When cited for excessive dust
 - ✓ Respirators available to affected miners
 - ✓ Submit corrective actions to DM for approval and then implement
 - ✓ Collect 5 valid samples after implementation
- Citation terminated after
 - ✓ Equivalent concentration of all 5 valid samples \leq standard
 - ✓ Revised ventilation plan incorporating approved corrective actions
 - ✓ Revised ventilation plan approved by DM

Proposed Part 70 Sampling DA-CPDM

- End-of-shift equivalent concentration exceeds applicable standard but is $< \text{ECV}$ in Table 70-2
 - ✓ Respirators available to affected miners
 - ✓ Implement corrective actions to lower concentration \leq standard
 - ✓ Record the excessive dust condition and corrective actions the same as 75.363
 - ✓ Review the CPDM Performance Plan and submit any plan revision for DM approval

Proposed Part 71 Sampling

- All Designated Work Position (DWP) sampling will be full-shift
- Control filters required when sampling with CMDPSU
- Miners required to wear CPDM trained on unit prior to wearing and every 12 months
- Operator record length of each shift – maintain record for 6 months

Proposed Part 71 Sampling

- 1 sample each quarter
- Specific work positions required to be sampled
 - ✓ Each highwall drill operator
 - ✓ Bulldozer operators
 - ✓ Other positions designated by the DM

Proposed Part 71 Sampling

- No CMDPSU equivalent concentration \geq ECV listed in Table 71-1
- No CPDM end-of-shift equivalent concentration \geq ECV listed in Table 71-2

Proposed Part 71 Sampling

- When cited for excessive dust
 - ✓ Respirators available to affected miners
 - ✓ Operator submit corrective actions to DM for approval and then implement
 - ✓ Collect 5 valid samples after implementation
 - ✓ If using CPDM – review/revise CPDM Performance Plan
- Citation terminated after
 - ✓ Equivalent concentration of all 5 valid samples \leq standard
 - ✓ Submit/Revise dust control plan incorporating the approved corrective actions

Proposed Part 71 Sampling - Exceed Standard

- If representative quarterly sample exceeds the applicable standard but is $< \text{ECV}$
 - ✓ Sample DWP each normal shift until 5 representative samples taken
 - ✓ Begin sampling first normal work shift after notification
 - ✓ Five samples used to determine compliance for sampling period
 - ✓ If using CPDM for DWP sampling, review/revise CPDM Performance Plan

Proposed Part 90 Sampling

- CMDPSU used for sampling at effective date of rule
- CPDM used for sampling 12 months after effective date of rule
- Samples are collected for full work shift
- Control filters are required when using the CMDPSU sampler
- Operator must record the length of each shift that Part 90 miner works
- If using CPDM for sampling:
 - ✓ Part 90 miner trained on CPDM
 - ✓ Maintain record of CPDM training

Proposed Part 90 Sampling – CMDPSU

- 5 samples each quarter
- No single-shift CMDPSU equivalent concentration \geq the Excessive Concentration Value (ECV) in Table 90-1

Proposed Part 90 Sampling – CMDPSU

- When cited for excessive dust
 - ✓ Respirators available to affected miners
 - ✓ Operator submit corrective actions to DM for approval and then implement
 - ✓ If corrective actions involve reducing dust levels:
 - Implement corrective actions and collect 5 valid samples
 - ✓ If transferring Part 90 miner:
 - Comply with transfer requirements (90.102), collect 5 representative samples
- Citation terminated after
 - ✓ Equivalent concentration of all 5 valid samples \leq standard
 - ✓ Submit/Revise dust control plan incorporating the approved corrective actions if action was to reduce dust levels

Proposed Part 90 Sampling – CMDPSU Exceed Standard

- Sample exceeds the applicable standard but is $< ECV$
 - ✓ Respirators available to affected miners
 - ✓ Take corrective action to reduce concentration
 - ✓ Record corrective actions in permanent record book same as 75.363

Proposed Part 90 Sampling - CPDM

- Sample Part 90 each shift every work day
- New reduced standard due to quartz will be effective the first work shift after the operator receives notice of the change
- No valid end-of-shift equivalent concentration \geq ECV in Table 90-2
- No weekly accumulated exposure (WAE) exceed the weekly permissible accumulated exposure (WPAE)

Proposed Part 90 Sampling – CPDM

- When cited for excessive dust:
 - ✓ Respirators available to Part 90 miner
 - ✓ Implement corrective actions to meet standard
 - ✓ If corrective actions are to lower concentration, submit the corrective actions as a proposed dust control plan or revisions to the approved Part 90 dust control plan for DM approval
 - ✓ Review the CPDM Performance Plan and submit any plan revision for DM approval
 - ✓ Record the excessive dust condition and corrective actions the same as 75.363
 - ✓ If corrective actions involve transferring Part 90, comply with transfer requirements in 90.102 and sample according to 90.207

Proposed Part 90 Sampling – CPDM Exceeding Standard

- End-of-shift equivalent concentration exceeds applicable standard but is $<$ ECV in Table 90-2
 - ✓ Respirators available to affected miners
 - ✓ Implement corrective actions to lower concentration \leq standard
 - ✓ Record the excessive dust condition and corrective actions the same as 75.363
 - ✓ Review the CPDM Performance Plan and submit any plan revision for DM approval

Proposed Part 72 – 72.100 Medical Monitoring

- Chest X-rays, spirometry, symptom assessment and work history for all coal miners (Surface and Underground)

Proposed Part 72 – 72.700 Respiratory Equipment

- Operators make available NIOSH approved respirators as required by Parts 70, 71 and 90

Proposed Part 72 – 72.800 Single Sample Determinations

- Secretary may use a single, full-shift sample to determine compliance with respirable dust standards

Proposed Part 75 – 75.325

Air Quantity

- Air measurements must be taken at the end of the face ventilating device with the scrubber turned off

Proposed Part 75 – 75.332

Working Sections and Working Places

- Each MMU must be ventilated with a separate intake split

Proposed Part 75 – 75.350 Belt Air Course Ventilation

- Standard lowered from 1.0 mg/m³ to 0.5 mg/m³ 6 months after effective date of rule

Proposed Part 75 – 75.362

On-shift Examinations

- On-shift examination and corrective actions must be recorded
- Certification of exam to be recorded on a board maintained on the MMU so that miners can see that controls were checked
- Record of exam verified and countersigned in a secure book
- Record book retained at least 1 year

Proposed Part 75 – 75.371

Mine Ventilation Plan; Contents

- Minimum quantity of air each MMU
- Specific details of dust controls on each MMU
- Specify type, size and maintenance of scrubber screen

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