

MSHA's Final Respirable Dust Rules

Major Sections 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)

Part 70 New Terms

- Normal Production Shift
- Representative Samples
- Excessive Concentration Value (ECV)

Part 70 - Standards

- 2.0 mg/m³ on effective date
- 1.5 mg/m³ 24 months after effective date
- Intake air
 - 1.0 mg/m³ on effective date
 - 0.5 mg/m³ 24 months after effective date

Part 70 Standards

■ Quartz

- Quartz standard 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

Part 70 Sampling General

- CMDPSU for Designated Occupations (DO) and Designated Area (DA) sampling at effective date
- CPDM 18 months after effective date for
 - DO sampling
 - Other Designated Occupations (ODO) sampling (former DAs on the MMU)
- CMDPSU used for (DA) sampling unless operator notifies District Manager of use of CPDM (18 months after effective date) at least 90 days prior to intended use

Part 70 Sampling

General (Cont.)

- Miners required to wear CPDM trained on unit prior to wearing and every 12 months
- All sampling will be full-shift, portal-to-portal
 - Change out of CMDPSU pump to complete full shift
 - Change out of CPDM unit to complete full shift

Part 70 Sampling

General (Cont.)

- Control filters required when sampling with CMDPSU
 - Control filter must have same pre-weight date
 - Carried to same area of mine as sample
 - Remain plugged entire shift
 - Transmitted with sample to MSHA
 - Dust data card completed
 - Certified person to handle

Part 70 Sampling

General (Cont.)

- Operator record length of each shift – maintain record for 6 months
- Operator record production for each MMU for each shift – maintain record 6 months
 - Operator will use to determine average over the last 30 production shifts

Part 70 Sampling Certification

- Persons certified by MSHA to conduct sampling
- Persons certified by MSHA to maintain and calibrate sampling units

Part 70 Sampling Certification

- Re-certified every 3 years
- MSHA may revoke certification
- Certified in sampling may collect samples
- Certified in Maintenance can work on sampling units
 - Maintenance certification not cover sampling duties

Part 70 Sampling Pre-Shift Checks

- Pre-shift CMDPSU within 3 hours of sample shift
 - Examination of components
 - Examination of cyclone interior
 - Examination of external tubing
 - Examination of clamping/positioning
 - Testing of voltage under load

Part 70 Sampling Pre-Shift Checks

- Pre-shift of CPDM within 3 hours of sample shift
 - Follow procedures required by manufacturer
 - Pre-operational examination
 - Testing
 - Set-up

Part 70 Flowrate

- Operate at
 - 2.0 lit/min for CMDPSU
 - 2.2 lit/min for CPDM
 - Other flowrate recommended by manufacturer or Sec. of Labor
- CMDPSU checked during 2nd and last hour of operation
- CPDM – examine unit at mid-shift or more often if specified in ventilation plan

Part 70

Bimonthly Sampling – MMU

(First 18 Months)

- 5 samples each bimonthly period on DO
 - Consecutive normal production shifts
 - Normal production shifts worked on consecutive days
- Samples exceeding standard by 0.1 will be used in compliance/noncompliance decision regardless of production
- New reduced standard due to quartz
 - Standard effective 7 days after date of notification

Part 70

Bimonthly Sampling – MMU Compliance

- 1 sample \geq ECV in Table 70-1
 - Make respirators available
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year

TABLE 71-1 EXCESSIVE CONCENTRATION VALUES (ECV)
 BASED ON SINGLE, FULL-SHIFT CMDPSU/CPDM
 CONCENTRATION MEASUREMENTS

Applicable Standard (mg/m ³)	ECV (mg/m ³)	
	CMDPSU	CPDM
2.0	2.33	2.26
1.9	2.22	2.15
1.8	2.12	2.04
1.7	2.01	1.92
1.6	1.90	1.81
1.5	1.79	1.70
1.4	1.69	1.58
1.3	1.59	1.47
1.2	1.47	1.36
1.1	1.37	1.25
1.0	1.26	1.13
0.9	1.16	1.02
0.8	1.05	0.91
0.7	0.95	0.79
0.6	0.85	0.68
0.5	0.74	0.57
0.4	0.65	0.46
0.3	0.54	0.34
0.2	0.44	0.23

TABLE 70-2 EXCESSIVE CONCENTRATION VALUES (ECV) BASED ON THE AVERAGE OF 5 OR 15 FULL-SHIFT CMDPSU/CPDM CONCENTRATION MEASUREMENTS

Applicable Standard (mg/m ³)	ECV (mg/m ³) based on 5-Sample Average		ECV (mg/m ³) based on 15-Sample Average	
	CMDPSU	CPDM	CMDPSU	CPDM
2.0	2.15	2.12	2.09	2.07
1.9	2.05	2.01	1.99	1.97
1.8	1.94	1.91	1.89	1.87
1.7	1.84	1.80	1.78	1.76
1.6	1.74	1.70	1.68	1.66
1.5	1.63	1.59	1.58	1.56
1.4	1.53	1.49	1.48	1.45
1.3	1.43	1.38	1.38	1.35
1.2	1.33	1.27	1.28	1.25
1.1	1.22	1.17	1.17	1.14
1.0	1.12	1.06	1.07	1.04
0.9	1.02	0.96	0.97	0.94
0.8	0.92	0.85	0.87	0.83
0.7	0.81	0.75	0.77	0.73
0.6	0.71	0.64	0.67	0.63
0.5	0.61	0.53	0.57	0.52
0.4	0.51	0.43	0.47	0.42
0.3	0.41	0.32	0.37	0.32
0.2	0.31	0.22	0.27	0.21

Part 70

Bimonthly Sampling – MMU Noncompliance

- 2 or more CMDPSU samples \geq the Excessive Concentration Value (ECV) in Table 70-1 or
- Average of all samples collected during a sampling period \geq the ECV in Table 70-2

Part 70

Bimonthly Sampling - MMU

Noncompliance

- Citation for excessive dust issued – sequential actions to be taken:
 - Respirators available to affected miners
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year
 - Within 8 calendar days after date of citation, sample consecutive shifts until 5 valid samples collected

Part 70

Bimonthly Sampling - MMU

Noncompliance (cont.)

- Citation terminated after
 - Equivalent concentration of each of the 5 valid samples \leq applicable standard
 - Submit revised ventilation plan incorporating the corrective actions used
 - Revised ventilation plan approved by DM

Part 70

Bimonthly Sampling - DA

- First 18 months after effective date
 - One valid sample each bimonthly period
 - If sample > applicable standard, collect 5 samples within 15 calendar days
 - Must start first day there is a production shift after receipt of notification
 - If standard changes due to quartz – new standard effective 7 calendar days after date of notification

Part 70

Bimonthly Sampling – DA Compliance

- 1 sample \geq ECV in Table 70-1
 - Make respirators available
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year

Part 70

Bimonthly Sampling – DA Noncompliance

- 2 or more CMDPSU samples \geq the Excessive Concentration Value (ECV) in Table 70-1 or
- Average of all samples collected during a sampling period \geq the ECV in Table 70-2

Part 70

Bimonthly Sampling - DA Noncompliance

- Citation for excessive dust issued – sequential actions to be taken:
 - Respirators available to affected miners
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year
 - Within 8 calendar days after date of citation, sample consecutive shifts until 5 valid samples collected

Part 70

Bimonthly Sampling - DA

Noncompliance (cont.)

- Citation terminated after
 - Equivalent concentration of each of the 5 valid samples \leq applicable standard
 - Submit revised ventilation plan incorporating the corrective actions used
 - Revised ventilation plan approved by DM

Part 70

Quarterly Sampling – MMU

(after 18 Months)

- Conducted with CPDM unless notified
- Sample DO consecutive shifts until 15 valid samples collected
 - Additional 15 shift groups may be required
 - District Manager discretion
 - Required if found not following approved ventilation plan

Part 70

Quarterly Sampling - MMU

- Sample ODOs (formerly DAs on MMU) consecutive shifts until 15 valid samples collected
 - ODO sampling not start until DO sampling complete
 - Different ODO types sampled over separate time period during quarter
 - Example: RB sampled over 15 shifts after DO 15 shift sampling complete
 - Example: SCs sampled over 15 shifts after the DO 15 shift sampling and the RB 15 shift sampling is complete

Part 70

Quarterly Sampling - MMU

(cont.)

- DOs, ODOs to be sampled specified in rule
- Other ODOs may be designated by the DM
- New reduced standard due to quartz will be effective 7 calendar days after the date of notification
- Samples exceeding applicable standard by 0.1 mg/m³ or more will be used regardless of production

Part 70

Quarterly Sampling - MMU Compliance

- For each sample \geq ECV in Table 70-1
 - Make respirators available
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year

Part 70

Quarterly Sampling - MMU

Noncompliance

- 3 or more CPDM samples \geq the Excessive Concentration Value (ECV) in Table 70-1 or
- Average of all samples collected during a sampling period \geq the ECV in Table 70-2

Part 70

Quarterly Sampling - MMU

Noncompliance

- Citation for excessive dust issued – sequential actions to be taken:
 - Respirators available to affected miners
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year
 - Within 8 calendar days after date of citation, sample consecutive shifts until collect 5 valid samples

Part 70

Quarterly Sampling - MMU

Noncompliance (cont.)

- Citation terminated after
 - Equivalent concentration of each of the 5 valid samples \leq applicable standard
 - Submit revised ventilation plan incorporating the corrective actions used
 - Revised ventilation plan approved by DM

Part 70

Quarterly Sampling - DAs

- After 18 months sample each DA 5 consecutive shifts each quarter
 - No consecutive days cycle
- Quartz present – resulting in reduced standard
 - New standard effective 7 calendar days after date of notification

Part 70

Quarterly Sampling - DA Compliance

- For each sample \geq ECV in Table 70-1
 - Make respirators available
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year

Part 70

Quarterly Sampling - DA

Noncompliance

- 2 or more CPDM samples \geq the Excessive Concentration Value (ECV) in Table 70-1 or
- Average of all samples collected during a sampling period \geq the ECV in Table 70-2

Part 70

Quarterly Sampling - DA

Noncompliance

- Citation for excessive dust issued – sequential actions to be taken:
 - Respirators available to affected miners
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year
 - Within 8 calendar days after date of citation, sample consecutive shifts until collect 5 valid samples

Part 70

Quarterly Sampling - DA

Noncompliance (cont.)

- Citation terminated after
 - Equivalent concentration of each of the 5 valid samples \leq applicable standard
 - Submit revised ventilation plan incorporating the corrective actions used
 - Revised ventilation plan approved by DM

Part 70

Transmission of Samples/Data

■ CMDPSU

- Transmit sample/control filter within 24 hours after end of sampling shift
- Data card completed and signed
- Not tamper with seal or alter weight

■ CPDM

- Mine official validate, certify and transmit electronically within 24 hours after end of sampling shift
 - Sample data file
 - Sample status conditions file
- Operator maintain data files at least 12 months
- Not tamper with CPDM or alter any data files

Part 70

Report and Posting

■ CMDPSU

- MSHA provide report of sample results
- Report posted at least 31 days

■ CPDM

- End-of-shift sample results – operator post within 12 hours after end of sampling shift
- Information remain posted until receipt of MSHA provided samples report
- MSHA sample results report posted at least 31 days

Part 70

Status Changes

- Change in operational status of sampling entity reported within 3 days
 - In writing or electronically

Part 72 – 72.100

Medical Monitoring

- Chest X-rays and spirometry examinations for all coal miners (Surface and Underground)
 - Must use NIOSH approved facility
 - Provided at frequency of at least 5 years (Voluntary)
 - New miners – within 30 days of first work (Mandatory)
 - Operators to develop plan for examinations
 - Plan must be approved by NIOSH
 - Plan submittal must include a roster of employees
 - Approved plan posted on mine bulletin board at all times

Part 72 – 72.700

Respiratory Equipment

- Operators make available NIOSH approved respirators as required by Parts 70, 71 and 90
- Respirator training when required by 70, 71 and 90
 - Provided prior to the miners' next scheduled shift
 - Cover: care, fit, use and limitations of each type made available
 - Maintain record of training for at least 2 years
 - Includes name, date and subjects covered
- Respirator not a substitute for environmental controls

Part 72 – 72.800

Single Sample Determinations

- Secretary will use a single, full-shift sample to determine compliance/noncompliance with respirable dust standards
 - Sample meets or exceeds ECV in Table 70-1, 71-1 or 90-1
- Citation for meeting or exceeding the ECV associated with the applicable standard will be terminated as specified in Parts 70, 71 and 90.

Part 75 – 75.325

Air quantity

- Air measurements must be taken at the end of the face ventilating device with a scrubber (if used) turned off

Part 75 – 75.350

Belt Air Course Ventilation

- Respirable dust standard remains at 1.0 mg/m^3 on effective date of rule
- Standard reduced to 0.5 mg/m^3 24 months after effective date of rule
- If a reduced standard is applicable on the working section that is less than the 1.0 mg/m^3 or 0.5 mg/m^3 standard, then the lowest applicable standard applies to the belt entry

Part 75 – 75.362 (a)(2)

On-shift Examinations

- Examination to assure compliance with respirable dust controls in plan
 - Within 1 hour of shift change if there is no break in production
 - Prior to resuming production if there is a break in production at shift change
- Deficiencies corrected prior to production beginning or resuming

Part 75 – 75.362 (a)(2)

On-shift Examinations

- Examination includes:
 - Air quantities and velocities
 - Water pressures & flow rate
 - Excessive leakage in water delivery system
 - Water spray number and orientation
 - Section ventilation & control placement
 - Roof bolter dust collector vacuum
 - Scrubber air flow rate
 - Work practices in plan
 - Any other dust suppression measures

Part 75 – 75.362 (g)(2)

On-shift Examinations

- Examination and corrective actions must be recorded
- Certification of exam (date, time, initials) to be recorded on a board maintained on the MMU so that miners can see that controls were checked
- Record of exam verified and counter signed in a secure book
 - Certified person verify record in book by initials and date by the end of the shift exam conducted
 - Mine foreman or equivalent countersign after verified by certified person – no later than end of next scheduled work shift
- Record book retained at least 1 year

Part 75 – 75.371(f) & (j)

Mine Ventilation Plan; Contents

- Minimum quantity of air each MMU
- Description of each different dust system on equipment
- Specific details of dust controls on each MMU:
 - Water spray information
 - Maximum ventilation device from working face
 - Maintenance of roof bolter dust collector
 - Work practices for equipment operators
- Specify type and size of scrubber screen
- Description of maintenance procedures for dust collectors on equipment

Part 71 New Terms

- Normal Work Shift
- Representative Samples
- Excessive Concentration Value (ECV)

Part 71 Standards

- 2.0 mg/m³ on effective date
- 1.5 mg/m³ 24 months after effective date

Part 71 Standards

■ Quartz

- ✓ Quartz standard 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

Part 71

Sampling General

- All 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

Part 71 Sampling

General (Cont.)

- Control filters required when sampling with CMDPSU
 - Control filter must have same pre-weight date
 - Carried to same area of mine as sample
 - Remain plugged entire shift
 - Transmitted with sample to MSHA
 - Dust data card completed
 - Certified person to handle

Part 71 Certification

- Persons certified by MSHA to conduct sampling
- Persons certified by MSHA to maintain and calibrate sampling units

Part 71 Certification

- Re-certified every 3 years
- MSHA may revoke certification
- Certified in sampling may collect samples
- Certified in Maintenance can work on sampling units
 - Maintenance certification not cover sampling duties

Part 71

Pre-Shift Checks

- Pre-shift CMDPSU within 3 hours of sample shift
 - Examination of components
 - Examination of cyclone interior
 - Examination of external tubing
 - Examination of clamping/positioning
 - Testing of voltage under load

Part 71

Pre-Shift Checks

- Pre-shift of CPDM within 3 hours of sample shift
 - Follow procedures required by manufacturer
 - Pre-operational examination
 - Testing
 - Set-up

Part 71

Flowrate

- Operate at
 - 2.0 lit/min for CMDPSU
 - 2.2 lit/min for CPDM
 - Other flowrate recommended by manufacturer or Sec. of Labor
- CMDPSU checked during 2nd and last hour of operation
- CPDM – examine unit at mid-shift or more often if specified in dust control plan

Part 71

DWP Sampling

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

Part 71

DWP Sampling (cont.)

- Mines with multiple work positions in bulldozer and other work positions
 - Sample as the DWP, the position with greatest exposure performing activity/task in same location exposed to same dust generation source
- Identify work positions to DM
 - Within 60 days after the effective date of rule for current active mines
 - Within 30 calendar days of new mine being activated
 - Within 7 days of operational status change

Part 71

Sampling General

- Samples collected on normal work shift
- Any sample exceeding standard by 0.1 mg/m³ or more used to determine compliance
- DWP samples collected on equipment operator or within 36 inches
- Non-equipment operator: on the miner at the location with highest dust exposure

Part 71

Sampling General

- DM may designate additional DWPs based on MSHA sampling
 - Work position exceeds 50% of the standard
 - Work position placed on a reduced standard due to quartz – exceeds 50% of the reduced standard
- DM may withdraw DWP from sampling
 - Applicable only to those additional DWPs established by the DM
 - No highwall drill or bulldozer DWP can be withdrawn from sampling
- DWP quartz
 - New standard effective 7 days after date of notification

Part 71

Exceed Standard

- If the one representative quarterly sample exceeds the applicable standard
 - Sample DWP each normal shift until 5 valid representative samples taken
 - Begin sampling first normal work shift after notification
 - Five samples used to determine compliance for sampling period

Part 71

Quarterly Sampling - DWP Compliance

- For each sample \geq ECV in Table 71-1
 - Make respirators available
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year

Part 71

Quarterly Sampling - DWP Noncompliance

- 2 or more samples \geq the Excessive Concentration Value (ECV) in Table 71-1 or
- Average of all samples collected during a sampling period \geq the ECV in Table 71-2

Part 71

Quarterly Sampling - DWP Noncompliance

- Citation for excessive dust issued – sequential actions to be taken:
 - Respirators available to affected miners
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year
 - Within 8 calendar days after date of citation, sample consecutive shifts until collect 5 valid samples

Part 71

Quarterly Sampling - DWP

Noncompliance (cont.)

- Citation terminated after
 - Equivalent concentration of each of the 5 valid samples \leq applicable standard

Part 71

Transmission of Samples/Data

■ CMDPSU

- Transmit sample/control filter within 24 hours
- Data card completed and signed
 - Certified person who performed sample shift checks
- Not tamper with seal or alter weight

■ CPDM

- Certified person sampling must validate, certify and transmit electronically within 24 hours after end of sampling shift
 - Sample data file
 - Sample status conditions file
- Operator maintain data files at least 12 months
- Not tamper with CPDM or alter any data file

Part 71

Report and Posting

■ CMDPSU

- MSHA provide report of sample results
- Report posted at least 31 days

■ CPDM

- End-of-shift sample results – operator post within 12 hours after end of sampling shift
- Information remain posted until receipt of MSHA provided samples report
- MSHA sample results report posted at least 31 days

Part 71

Status Changes

- Change in operational status of sampling entity reported within 3 days
 - In writing or electronically

Part 71 – 71.300

Respirable Dust Control Plan

- Plan required for a DWP within 15 days after termination date of citation for excessive dust
- Provisions for comments from representative of miners
 - Operator notify representative of miners 5 days prior to submission, provide copy if requested
 - Copy of proposed plan or revision available for inspection by representative
 - Representative may submit comments
- Copy of proposed plan or revision posted on mine bulletin board
- Specific information on DWP and controls used

Part 71 – 71.301 DWP Plan Approval

- Approved on a mine-by-mine basis
- Controls likely to maintain dust levels
- Provisions can be objectively determined
- Approved plan made available to representative of miners
 - Copy to representative upon request
 - Available for inspection by representative
 - Posted on mine bulletin board while in effect

Part 90

- Applies to all coal miners – miners working at underground coal mines, surface coal mines or surface coal facilities

Part 90 New Terms

- Normal Work Shift
- Representative Samples
- Excessive Concentration Value (ECV)

Part 90 Standard

- 1.0 mg/m³ standard on effective date of rule
- 0.5 mg/m³ 24 months after effective date of rule

Part 90 Standard

■ Quartz

- Quartz standard 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 for Part 90

Part 90 Transfer

- Existing position on same shift
- Different mine, shift or newly created position if miner agrees in writing
- Operator required to notify MSHA of any transfer

Part 90

Compensation

- Not less than rate of pay prior to exercising option
- Wage increases accrued to the position transferred to

Part 90

Waiver/Re-exercise

- Miner may waive rights under Part 90
- Miner may re-exercise Part 90 rights at any time

Part 90 Sampling General (cont.)

- CMDPSU used for sampling on effective date of rule
- CPDM used for sampling 18 months after effective date of rule

Part 90 Sampling

General (cont.)

- Miners required to wear CPDM trained on unit prior to wearing and every 12 months
- All sampling will be full-shift, portal-to-portal
 - Change out of CMDPSU pump to complete full shift
 - Change out of CPDM unit to complete full shift

Part 90 Sampling

General (cont.)

- Control filters required when sampling with CMDPSU
 - Control filter must have same pre-weight date
 - Carried to same area of mine as sample
 - Remain plugged entire shift
 - Transmitted with sample to MSHA
 - Dust data card completed
 - Certified person to handle

Part 90 Sampling General (cont.)

- Operator must record the length of each shift that Part 90 miner works

Part 90

Certifications

- Persons certified by MSHA to conduct sampling
- Persons certified by MSHA to maintain and calibrate sampling units

Part 90

Certifications

- Re-certified every 3 years
- MSHA may revoke certification
- Certified in sampling may collect samples
- Certified in Maintenance can work on sampling units
 - Maintenance certification not cover sampling duties

Part 90 Sampling Pre-Shift Checks

- Pre-shift CMDPSU within 3 hours of shift
 - Examination of components
 - Examination of cyclone interior
 - Examination of external tubing
 - Examination of clamping/positioning
 - Testing of voltage under load

Part 90 Sampling Pre-Shift Checks

■ Pre-shift of CPDM

- Follow procedures required by manufacturer
- Pre-operational examination
- Testing
- Set-up

Part 90 Flowrate

- Operate at
 - 2.0 lit/min for CMDPSU
 - 2.2 lit/min for CPDM
 - Other flowrate recommended by manufacturer or Sec. of Labor
- CMDPSU checked during 2nd and last hour of operation
- CPDM – examine unit at mid-shift or more often if specified in respirable dust control plan

Part 90

Transfer Sampling

- 5 samples within 15 days after:
 - 20 day grace period
 - Implementing a transfer after the 20 day grace period

Part 90

Compliance Sampling

- 5 samples each quarter
 - Consecutive work days
- New reduced standard due to quartz
 - Standard effective 7 days after date of notification

Part 90 Sampling Compliance

- 1 sample \geq ECV in Table 90-1
 - Make respirators available
 - Immediately take corrective action to lower to or below applicable standard
 - Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year

Part 90

Noncompliance

- 2 or more samples \geq the Excessive Concentration Value (ECV) in Table 90-1 or
- Average of all samples collected during a sampling period \geq the ECV in Table 90-2

Part 90 Noncompliance

- Citation for excessive dust issued – sequential actions to be taken:
 - Respirators available to affected miner
 - Immediately take corrective actions to lower to or below applicable standard
 - If corrective actions involve reducing dust levels:
 - ✓ Implement corrective actions
 - ✓ Within 8 calendar days after date of citation, sample until 5 valid samples collected
 - If transferring Part 90 miner:
 - ✓ Comply with transfer requirements (90.102)
 - ✓ Within 15 calendar days after date of transfer, sample until 5 valid samples collected

Part 90

Noncompliance (Cont.)

- Make record of corrective action
 - Certify by mine foreman or equivalent
 - In secure book
 - Maintained at mine for at least 1 year
- Citation terminated after
 - Equivalent concentration of each of the 5 valid samples \leq applicable standard

Part 90

Transmission of Samples/Data

■ CMDPSU

- Transmit sample/control filter within 24 hours after end of shift
- Data card completed and signed
- Not tamper with seal or alter weight

■ CPDM

- Certified person sampling must validate, certify and transmit electronically within 24 hours after end of sampling shift
 - Sample data file
 - Sample status conditions file
- Operator maintain data files at least 12 months
- Not tamper with CPDM or alter any data files

Part 90

Report and Posting

■ CMDPSU

- MSHA provide report of sample results
- Operator provide copy of report to Part 90 miner
- Do **NOT** post report

■ CPDM

- Certified person in sampling shall provide to each Part 90 miner a paper record (dust data card) of sample run signed by certified person within first hour next work shift
- Operator shall **NOT** post sample information

Part 90 Status Changes

- Change in status of Part 90 miner reported within 3 days
 - In writing or electronically

Part 90

Respirable Dust Control Plan Filing

- Plan required for a Part 90 miner after citation for excessive dust if operator elected to reduce dust exposure by reducing the dust level in current position
- Include MIIN of Part 90 and specific details of controls
- Specific information on how control measures will continue to be used

Part 90 Respirable Dust Control Plan Approval

- Approved on a mine-by-mine basis
- Controls likely to maintain dust levels
- Provisions can be objectively determined
- Approved plan provided to Part 90 miner
- Approved plan **NOT** posted on mine bulletin board
- Operator may submit revisions for DM approval