

parameters that were in use and other conditions that were in effect at the time of sampling that resulted in MSHA issuing a citation for excessive dust; and (3) the operator's prior performance in complying with the plan parameters.

If the district manager concludes that the corrective measures taken are sufficient to achieve and maintain compliance, MSHA would conduct sampling to determine if the operator's actions were effective to gain compliance. For example, if the operator believes that the overexposure was caused by improperly following work practices, the proper course of action would be to review these work practices with the affected miners rather than require the operator to revise the plan. Since there would be no need to change the plan parameters, MSHA would initiate abatement sampling in this particular case. Like compliance sampling, federal mine personnel would sample five different occupations including the occupation originally cited for the entire shift or for 8 hours, whichever time is less. However, if this problem should recur, the district manager would inform the operator that the plan parameters are no longer adequate to provide the required level of health protection and require the operator to initiate verification sampling.

If, on the other hand, the district manager determines that dust control parameters may not maintain respirable dust levels at or below the applicable dust standard and requires the operator to upgrade the dust control portion of the mine ventilation plan, the operator would be required to initiate the plan verification process under proposed § 70.206.

Under proposed paragraph (c), an excessive dust citation would be terminated when the results of all valid respirable dust samples collected by MSHA were at or below the applicable dust standard. The subsequent action form would clearly and fully describe the action taken to abate the violation. If compliance was demonstrated, the operator may be required to revise the plan parameters depending on the type of corrective action taken to abate the violation. This would include, at a minimum, the actual dust control parameters that were in effect when MSHA sampled the MMU. If MSHA samples indicate continued noncompliance, then MSHA may proceed to revoke approval of the dust control provisions of the ventilation plan. The operator may be required to initiate the verification sampling if the district manager determines that the dust control parameters originally

approved are no longer adequate to maintain respirable dust levels at or below the applicable dust standard under current operating conditions at the MMU.

If, instead of MSHA conducting sampling to determine whether the operator's actions were effective to gain compliance, the operator initiates verification sampling under proposed § 70.206, MSHA would terminate a citation for excessive dust after the revised plan parameters were verified by the operator to be adequate for the current mining conditions.

#### **Reporting of Changes in Operation Status**

##### **Section 70.219 Status Change Reports**

The proposed rule would retain the existing provision of § 70.220, which would be redesignated as § 70.119, with some revision. Not only would the operator continue reporting to the district manager changes in the operational status of a mine, MMU, or DA that affect the respirable dust sampling requirements of this part, but also when such status changes could potentially affect compliance sampling which will be conducted by MSHA. This would enable MSHA to carry out its sampling responsibilities more effectively and efficiently by avoiding unnecessary mine visits. Status changes would be reported either in writing or by electronic mail within three working days after the status change occurred.

#### **Use of Personal Continuous Dust Monitors (PCDM) to Monitor Exposure**

##### **Section 70.220 Personal Continuous Dust Monitor (PCDM)**

MSHA has long recognized that continuous monitoring of the work environment offers the potential to improve miner health protection. The current system of monitoring concentrations of respirable dust to which miners are exposed relies on periodic sampling and on corrective actions taken after the delay in obtaining the sampling results. Continuous monitoring, on the other hand, would allow mine operators and miners to be aware of the actual dust conditions on a real-time basis. This would provide mine personnel with current information on the performance and condition of the dust control parameters. Early indications of deteriorating conditions, when the dust levels approach the applicable dust standard, would enable mine personnel to take appropriate corrective measures, thus averting possible overexposure. The health benefits of continuous monitoring were also recognized by the

Task Group and the Dust Advisory Committee both of which recommended accelerated development, field testing, and immediate deployment of such monitors once verified as reliable.

While such a monitor is not yet commercially available, significant progress has been made to advance the state of personal continuous monitoring technology, especially since MSHA published its proposed rule on plan verification on July 7, 2000. According to NIOSH, a one-piece personal dust monitor (called "PDM-1" for short) would be available for in-mine use by the end of 2003. This device is designed to provide continuously-measured exposure information in real-time during the shift, projected end-of-shift average concentration, and the time-weighted average dust concentration reading within 15 minutes after the end-of-shift.

Therefore, as recommended by the Dust Advisory Committee and urged by the mining community, MSHA is proposing a new standard under § 70.220 to encourage deployment of the PDM-1 or other approved PCDMs by permitting operators to use this technology in conjunction with engineering and administrative controls as part of a comprehensive dust control program to prevent overexposures on individual shifts.

Proposed paragraph (b) would permit the operator to use administrative controls without obtaining approval from the Administrator for Coal Mine Safety and Health under proposed § 70.209. The operator would be required to include in the proposed plan, the specific administrative controls to be used, how each would be employed and by whom, and the method for ensuring that such controls are complied with on each shift. In addition, the operator would be required to identify the miners or specific occupations to be monitored on each shift using PCDMs and to implement procedures to ensure that no miner will be exposed during any shift to dust concentrations in excess of the applicable dust standard.

Since the device is designed to display continuous real-time dust concentrations, the operator would be expected to develop written procedures for the proper use of this type of dust monitor. Key to the successful employment of this technology is the proper application of its capability to supply timely information on dust levels and miner exposure during the shift. The ability to be aware of the dust levels to which miners are exposed in real time would require the operator to develop specific guidelines regarding