

United Mine Workers of America



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March 13, 2009

Ms. Patricia Silvey
U.S. Department of Labor - Office of Standards
Mine Safety and Health Administration
1100 Wilson Boulevard, Room 2350
Arlington, VA 22309-3939

Dear Ms. Silvey:

Attached are the comments of the United Mine Workers of America on the Proposed Rule for Coal Mine Dust Personal Monitors 74 FR 2915 January 16, 2009; RIN 1219-AB61.

The UMWA appreciates the opportunity to participate in this important rulemaking and asks that you forward our comments to the appropriate person(s) for consideration.

Sincerely,

Dennis O'Dell, Administrator
UMWA Department of Occupational
Health and Safety

AB61-COMM-2

United Mine Workers of America
Comments on Proposed Rule Coal Mine Dust Personal Monitors
74 FR 2915 January 16, 2009
RIN 1219-AB61

The history of the development of the CDPM (Coal Mine Dust Personal Monitor) starts earlier than “the 1990s” and was not initiated by NIOSH. Rather it dates to the mid 1970’s when it became apparent that the sampling methodology at the time – the belt-worn pump with the cyclone and filter cassette – was subject to abuse. In response, the Bureau of Mines sought to develop a direct reading instrument for monitoring miners’ exposure to respirable dust. From those early efforts came instruments that measured the attenuation of a stream of beta particles and an optical scattering instrument. Neither of these instruments was satisfactory so the Bureau supported development of the “tapered element oscillating monitor.” This is the detection technology that is at the heart of the CDPM. Development was halted in 1980 then picked up around 1993 (when NIOSH picked it up), when the TEOM methodology was refined and incorporated into the CDPM.

This history is important because it gives some of the context for why this instrument is important. Its need was recognized soon after passage of the Coal Mine Health and Safety Act of 1969 and has been known for a long time and in development for over thirty years.

We note with concern that MSHA and NIOSH propose to update requirements for the coal mine dust personal sampler unit, the instrument the CDPM is designed to replace. This instrument should be phased out as acceptable for determining compliance with dust exposure limits. Its use should be limited to serving as a standard for the CDPM and for determining silica content of dust sample. Consequently, we urge MSHA and NIOSH to include a date when approval of this unit for determining compliance will terminate. We recommend two years after the effective date of this rule.

Approving both instruments for determining compliance implies that mine operators may use either. This approach is fundamentally flawed. It creates a two class system of sampling and dust control for both miners and mine operators. Miners that work for mine operators that use the CMDPSU are denied the tangible and manifest benefits of the CDPM. The benefits of the CDPM, in fact, are well stated in the preamble to this rule:

The promise of the new technology, which is referred to generically as a “continuous personal dust monitor” (CDPM), was that it would allow mine operators to identify and immediately respond to high dust exposures. Operators would evaluate causes of over exposures, implement solutions to reduce exposures, and adjust them as necessary.” p 2916

We should add that the CDPM also informs miners about dust concentration and they too can “. . . immediately respond to high dust exposures.” Operators and miners

alike receive this near-instantaneous feed-back about the concentration of respirable dust and both can evaluate dust control measures while the miner is working, i.e., at the time and place when exposure measurement and dust control measures are most needed and most useful. The material effects of these differences are that they allow miners and mine operators that use the CDPM to reduce their exposure to respirable dust and thereby to take the most effective steps needed to prevent pneumoconiosis. None of this is possible with the CMDPSU.

The CMDPSU offers none of these benefits. It does not give instantaneous feedback about dust exposure. It does not give instantaneous feedback allowing one to evaluate exposure. It does not give feedback at the time and place where it is most needed. Most important, it does not allow miners or mine operators to evaluate and improve control measures. The CMDPSU provides information about dust exposure only for the entire time during which it operates and gives no information about variation in time and place or activity. It provides this information one to two weeks after exposure has occurred, at a time when it is useless for evaluating specific causes for known exposure and for evaluating control measures.

The material effects of these differences are that they permit miners to be exposed to excessive amounts of respirable dust and thereby, to contract pneumoconiosis. Miners that work in mines that use the CMDPSU rather than the CDPM are denied the benefit of this new technology. The explicit purpose of the CDPM is to protect miners from the effects of breathing respirable dust. Moreover, it was developed with miners' tax dollars. Denying them the benefit of the CDPM is a frank betrayal of their investment and expectation.

This qualitative difference is profound. One enables targeted dust controls, the other does not. They are in fact two different instruments and should not be treated as interchangeable.

Because of these differences, we look forward to the CDPM being the sole acceptable method for measuring miners' exposure to respirable dust. We suggest a temporary approval of the CMDPSU to allow for a transition to comprehensive use of the CDPM. This transition period should be two year.

Sec. 74.7 (d)

This section requires that the CDPM accurately record the dust concentration “. within the range from 10% to 2 times the PEL for respirable coal mine dust.” This raises several questions. First, if a dust sample contains more than 5% quartz, the PEL is reduced (30 CFR 70.102). Would this requirement remain the same, i.e., 10% to two times the *reduced* PEL? Second, if MSHA reduces the PEL through rule-making for respirable dust or for quartz dust, would this requirement remain the same, i.e., 5% to two times the new PEL? We recommend that the meaning of this requirement remain as it is and as it might be, i.e., 10% to two times the PEL, regardless of the specific value of the PEL.

Part 74.7 (h)

The only output from the CDPM is information about the concentration of respirable dust for varying time periods. However, except for provisions for the size of characters, and end of shift results, there is nothing in this proposed rule that provides for results for shorter time periods (from minutes to hours). Under this proposed rule, an instrument that provided only the end of shift results would be acceptable. It would not be acceptable to us.

Whatever number is displayed, it should not be truncated (i.e., The last digit should not be dropped without rounding) as is the current practice with the CMDPSU. It should be rounded as is the customary practice in most other applications.

We suggest that the information displayed on the CDPM be the same as described in NIOSH Publication RI 9669, (Laboratory and Field Performance of a Continuous Personal Respirable Dust Monitor):

“A microprocessor-based controller collects real-time inputs from sensors and the microbalance to provide a minute-by-minute record of the dust loadings and mine environment. The CDPM continuously displays personal dust exposure information to the miner in numeric and graphic formats. Environmental data such as ambient temperature, pressure, and motion of the instrument are measured. Dust and environmental data are stored in the CDPM memory for about 20 full-shift sample runs. These data may be selected for downloading and analysis. An illuminated data display on the top of the CDPM continuously shows the previous 30-min dust concentration, cumulative mass concentration to that point in the shift, and an estimated EOS projected concentration exposure. Through the display, miners can gauge their current dust exposure, as well as the effectiveness of actions taken to reduce their dust exposure.

The exposure data described above are always displayed to miners, but are protected from tampering by being accessible only to an authorized person. In addition, the CDPM allows miners and management to initiate short-term mass concentration measurements for specific monitoring objectives without affecting the shift-based statistics. This can be helpful to gauge the effectiveness of various dust or ventilation engineering control techniques. These intra-shift measurements may be made as often as desired, and data obtained during these trials may be selected for downloading together with the tamper-resistant shift-based information.” p 7.

Part 74.7 (i)

We welcome the requirement that these units can be powered continuously for 12 hours. Miners work shifts longer than 8 hours now and it is appropriate for MSHA to make it technically feasible now for this instrument to have the capacity to monitor

exposure later, with a revised regulation for requiring sampling for a full shift (30 CFR 70) However, some miners work shifts longer than 12 hours. The dust concentration to which these miners are exposed should be monitored for the full shift, up to 16 hours.. We suggest that this unit be capable of operating for a minimum of 16 hours. If this is not feasible immediately, it should be required in two years.

Sec. 74.7 (m)

Under this section manufacturers are required to design tampering safeguards to prevent intentional tampering of results. This is a welcome requirement also. However, we think it is naive to conclude that such safeguards will prevent tampering altogether. MSHA should have other methods to prevent tampering and to detect it and prosecute those who perpetrate such fraud.

Sec. 74.8 NIOSH Publication 95-117 (referred to in this notice at p 2920, fn 7) is posted neither on the NIOSH nor MSHA website.

Sec. 74.10 (a)

This instrument should provide useful and timely information to whoever needs it. Therefore, the operational manual should be written so that any worker at a mine should be able to read and understand it. Requiring that operating instructions be “.clearly written” is a useful and appropriate requirement. However one person’s idea of clarity is another’s mindless babble. So we suggest providing a more specific and objective criteria, namely, that operating instructions be written so that anybody in the industry can, after reading them, operate the CPDM.