

Oral Presentation
on
Diesel Particulate Matter Exposure of Underground Metal and
Nonmetal Miners
MSHA RIN 1219-AB29

Michael J. Wright
Director of Health, Safety and Environment
United Steelworkers of America AFL-CIO.CLC

Arlington, VA
October 7, 2003

My name is Mike Wright. I am privileged to direct the Health, Safety and Environment Department of the United Steelworkers of America, a labor union with approximately 600,000 members in the United States and Canada. They include the majority of organized metal and nonmetal miners in North America. Of course, miners in the United States will be directly affected by this rulemaking, but Canadian miners will be affected as well, since what MSHA does will be watched by Canadian regulators and employers. Obviously, we have a keen interest in the diesel rule.

This rulemaking is based on the January 19, 2001 final rule for DPM in underground metal and nonmetal mines, a challenge to that rule by several mine operators and trade associations, the subsequent intervention by the USWA, and a July 15, 2002 settlement agreement between the parties. In that settlement agreement, MSHA agreed to propose changes to certain provisions of the rule, while other provisions went into effect. It is important to note that MSHA did not, and could not, agree to do more than propose changes to the existing rule, and subject those changes to notice and comment rulemaking. MSHA did not, and could not, give up its statutory mandate to consider the evidence fairly, and set standards “which most adequately assure on the basis of the best available evidence that no miner will suffer material impairment of health or functional capacity even if such miner has regular exposure to the hazards dealt with by such standard for the period of his working life.” [*Mine Act, Sec. (6)(A)*] MSHA is under no legal obligation to make any changes to the current standard, and cannot make such changes unless they comport with the requirements of the Mine Act.

Likewise, the USWA's participation in the settlement agreement does not imply unqualified support for every change MSHA has proposed. Some we do support; others we oppose; still others we would support only if modified or backed up with additional worker protections. We made this clear to MSHA and the industry litigants when we signed the settlement agreement, and we repeat it now.

I will not comment today on the need for a DPM standard. The USWA believes that issue was fully settled in the previous rulemaking, which resulted in the current standard. There is no new evidence that weakens MSHA's conclusion that DPM is a carcinogen, which must be controlled to the lowest feasible level.

Let me turn to the specifics of the MSHA proposal:

A. Section 57.5060(a)

DPM is a mixture of many different individual chemicals. It is impossible to sample for all of them, so a sampling concentrates on a single chemical or a well-defined chemical family that acts as a "surrogate" for DPM in general. In this rulemaking, MSHA proposes to change the surrogate from total carbon (TC) to elemental carbon (EC), primarily because sampling and analysis of elemental carbon is less subject to interference by carbon that may be tied up in substances like oil mist and cigarette smoke.

Since the atmosphere of a working mine will generally contain less EC than TC (and will never contain more), a change in the surrogate necessitates a change in the level of that surrogate permitted in the air miners breathe. MSHA has chosen an interim level of EC equal to 308 ug/m³, based on data showing this level to be most consistent with a TC level of 400 ug/m³. We agree. The change to EC and the new interim level of 308 ug/m³ are supported by the currently available evidence, and well explained in the preamble. However, MSHA should not preclude a different finding with respect to the final limit. New evidence may show TC to be more representative of the actual risk to miners. Even if EC is retained as the surrogate for the final level, the conversion factor between TC and EC may be different at lower levels of TC.

MSHA also proposes to base compliance determinations on personal exposure rather than environmental concentrations. We agree that personal

sampling gives a better representation of real exposure, and we support the change. However, MSHA should define what is meant by “personal exposure.” In particular, exposure should be defined, as in most Department of Labor standards for air contaminants, as “the exposure that would occur if the employee were not using respiratory protective equipment.” [29CFR 1910.1027(b), OSHA Cadmium Standard]. Otherwise, MSHA will be embroiled in endless disputes over how much time every sampled employee wore a respirator, the effective protection factor for that employee under those circumstances, and the concentration of DPM during that period.

Unfortunately, basing compliance determinations on personal sampling has one serious drawback. An operator can cheat by moving a miner being sampled to a low exposure area. Therefore, the standard must authorize MSHA inspectors to insist that every sampled miner perform work that is representative of his or her normal routine. MSHA inspectors must also be empowered to back up personal sampling with area sampling where necessary to fully characterize representative exposures.

In its August 14, 2003 *Federal Register* notice, MSHA discussed the use of an error factor, based on the 95% confidence limit of the EC measurement. [68 FR 48707] A citation would be issued only if MSHA was 95% confident that the exposure limit had been exceeded. Some commenters see the standard primarily as a legal requirement, with penalties for non-compliance. They argue that no penalties should be assessed unless MSHA is sure that the standard has been violated. Others see the standard primarily as a public health measure, which at the very least should be triggered when a preponderance of the evidence indicates that miners are at risk. In fact, the standard is both a legal requirement and a public health measure. In the notice, MSHA states that prevailing practice under other OSHA and MSHA standards has been “to cite only when noncompliance is indicated at a high level of confidence.” [68 FR 48707], supporting the view of the standard as a legal requirement. However many OSHA standards, including the most recent, protect public health through the use of an “action level” – typically half the exposure limit -- at which additional sampling and some controls kick in. The USWA recognizes the legal difficulty of citing for noncompliance where the Agency is not confident that noncompliance has occurred. But we suggest that MSHA consider the use of action levels in the rulemaking for the final DPM exposure limit and other air contaminants.

B. Section 57.5060(c)

MSHA proposes to modify the requirements for special extensions of time granted to operators to come into compliance with the applicable exposure limits. Specifically, operators could seek extensions of time to comply with both the interim and final limits, and MSHA could grant more than one extension. The length of an extension would be limited to one year. Finally, MSHA could grant an extension for economic, as well as technological, reasons.

The USWA does not support these changes with respect to the interim standard. The current standard found the interim level to be feasible without the need for any special extensions, and that is the legal status quo. In last year's settlement agreement, we agreed to a reopening of the record because the mine operators insisted that new evidence would show that some mines might need the special extensions to come into compliance with the interim level. However, in the intervening fifteen months, neither the industry, nor NIOSH, nor any other party has submitted any convincing evidence showing the need for the extraordinary relief from the interim limit granted by a special extension. Indeed, the entire industry has already had a one-year de facto special extension by MSHA's decision (to which we agreed) to delay enforcement of the interim limit.

In short, the industry has not met its burden to show that MSHA's original decision with respect to special extensions should be abandoned. The evidence in this record simply does not contain sufficient grounds for changing the standard to allow special extensions for compliance with the interim level.

To be sure, deliveries of filters or other equipment necessary for compliance may sometimes be delayed due to factors beyond the mine operator's control. That kind of problem is routine, and it is routinely handled by MSHA in the course of its enforcement activities, by giving sufficient time for abatement. There is no reason to overlay that process with this new regulatory device of special extensions.

We believe remaining issues regarding special extensions – their duration, renewability, and whether economic feasibility should be considered – should be left to the rulemaking on the final limit. However, we are troubled by the discussion of economic infeasibility in the *Federal*

Register notice. Economic factors are already a de facto part of feasibility determinations. Our union has represented workers handling plutonium, nerve gas, tetraethyl lead, nickel carbonyl, infectious disease agents, and shock-sensitive explosives. It is possible to solve any industrial hygiene problem with enough money. However, no one believes that a control is feasible if it is so exotic or expensive that it would drive the industry out of business. That kind of feasibility determination is a required part of rulemaking. A standard must be economically feasible for the industry, taken as a whole.

But what should happen after a standard has been promulgated, and a mine operator claims that a control is simply too expensive for his or her mine, even though it is available, and would be effective? We believe that MSHA's enforcement process already contains enough flexibility to deal with that situation, and that there is no need to modify the standard's provisions regarding the criteria for special extensions.

One particular problem with the proposed change is that it does not contain any definition of economic feasibility. The *Federal Register* notice contains an example, where the cost of retrofitting controls onto a piece of equipment would exceed the value of the equipment. [68 FR 48708] We agree that replacing the equipment is a better alternative than retrofitting the controls, but only if the new equipment is ordered immediately. "Economically infeasible" is not the same thing as "expensive" or even "economically inefficient." In general, controls should be considered economically feasible if their implementation would not bankrupt the company or force the mine to close.

In addition, the proposal does not indicate how MSHA would enforce the new language. Would MSHA demand a complete financial accounting? Would that accounting cover just the mine, or the entire company? Would the miners' representative have access to those records as well? Would individual miners? (The USWA would object strenuously to any provision that did not allow the miners' representative access to all records used by MSHA to determine the feasibility of controls in a particular mine.) In short, MSHA should withdraw this aspect of its proposal until such time as the Agency can fully consider its ramifications.

C. Section 57.5060(d)

This section currently specifies areas under which miners can work in concentrations of DPM above the concentration limit. Much of it becomes moot if the concentration limit is changed to an exposure limit. MSHA proposes to delete this section as written, and substitute a requirement to use the standard hierarchy of controls.

The USWA recognizes that there may be areas or activities where the PEL cannot be met. For the most part, these should be areas that miners enter for short periods, under unusual circumstances. An example would be fixing a conveyor in an incline that is also used as an air return, or driving a defective scooptram to an area where it can be repaired. In these cases, engineering controls and work practices might not be feasible, and the standard should allow the use of respirators. However, routine use of respirators for any normal production job or activity should be allowed only under a special extension, or where controls are in the process of being installed.

Under the hierarchy of controls, MSHA considers a control to be effective, and therefore required, if it can reduce exposure by 25%. [68 FR 48710] We agree in part with this cut off, but a control should also be considered effective if it can bring the operator into compliance, no matter what the percent reduction in exposure. If, for example, the exposure on a particular job is 340 ug/m³, and a proposed control can reduce exposure to 290 ug/m³, that control should be required, even though it only achieves a 14% reduction.

The current standard bars the use of respirators as methods of compliance in general, although they are permitted for some activities under the current provisions of 57.5060(d). One of the defects of the current standard is that it does not contain requirements for an effective respirator program. MSHA has begun to correct that in the proposed standard, but the requirements are grossly inadequate, and threaten both the lives and the livelihoods of miners. In particular, there is no explicit requirement for medical evaluations for miners required to wear respirators. As the MSHA's *Federal Register* notice itself points out, quoting the preamble to OSHA's respirator standard, "Specific medical conditions can compromise an employee's ability to tolerate the physiological burdens imposed by respirator use, thereby placing the employee at increased risk of illness, injury, and even death." A mine operator who puts a miner in a respirator

without a medical evaluation is risking that miner's life. A decision by MSHA to authorize that, would border on criminal negligence. MSHA standards are supposed to save lives, not threaten them.

Transfer provisions go hand-in-hand with medical evaluations for miners unable to wear respirators. Such miners must be placed in areas that do not require respirators, with no loss in earnings. It is fundamentally unfair for a miner to lose his or her job, or to suffer a loss of income, simply because his or her employer cannot meet the obligations of the standard. In addition, miners fearing the loss of a job if they "flunk" the respirator evaluation, may not answer the questions truthfully or may resist the evaluation altogether. Transfer rights, with full earnings protection, are required for sound medical reasons.

They are also required for legal reasons. In the *Federal Register* notice, MSHA references section 101(a)(7) of the Mine Act, which states, in pertinent part: "In addition, where appropriate, any such mandatory standard shall prescribe the type and frequency of medical examinations or other tests which shall be made available, by the operator at his cost, to miners exposed to such hazards in order to most effectively determine whether the health of miners is adversely affected by such exposure. Where appropriate, the mandatory standard shall provide that where a determination is made that a miner may suffer material impairment of health or functional capacity by reason of exposure to the hazard covered by such mandatory standard, that miner shall be removed from such exposure and reassigned. Any miner transferred as a result of such exposure shall continue to receive compensation for such work at no less than the regular rate of pay for miners in the classification such miner held immediately prior to his transfer." [68 FR 48712] In the preamble to the proposed standard, MSHA describes this section of the Mine Act as establishing the "statutory authority" for the Agency to promulgate medical evaluation transfer provisions. [68 FR 48712] However, it does much more. It establishes a requirement that MSHA include such provisions where an appropriate medical protocol is available and where transfers will protect miners' health. Once those findings are made – and they are surely true for respirator users – the Agency has no discretion.

We do not believe such provisions will be expensive. Miners with respiratory or cardiovascular conditions, who are unable to tolerate the increased breathing resistance caused by negative-pressure respirators, may

be able to wear positive pressure respirators without any problem. The OSHA Lead Standard requires medical evaluations for respirator users. Likewise, it requires transfers from regulated areas for a variety of conditions. Many workers have been transferred for high blood lead levels or medical conditions like kidney disease, but very few have ever been transferred because of their inability to wear a negative or positive-pressure respirator.

Respirators are hard to tolerate under the best of conditions. It is virtually impossible to wear one effectively for a full work shift. Therefore, the standard should mandate break time, where a miner can remove his or her respirator in clean air. The clean air can be provided by outfitting an enclosed booth with filtered air, or by providing fresh air to an area close to the miner's workstation. At a minimum, a 10-minute break should be allowed every two hours.

MSHA proposes to retain the ban on employee rotation for the purpose of compliance. We agree. DPM is a carcinogen. Rotation may reduce the risk to an individual miner, but it will not necessarily reduce the overall risk to the population of miners. In fact, depending on the shape of the dose-response curve, it may actually increase the population risk.

D. Section 57.5062

The current standard requires mine operators to establish a DPM control plan. MSHA proposes to retain this requirement. We strongly agree. Planning is essential for any complex activity. Mine operators have spent a great deal of time and money in this rulemaking, arguing that the control of DPM is exceedingly complex. It is hard to understand how they can simultaneously argue that control plans are unnecessary.

E. Table 57.5075(A)

The table of recordkeeping requirements does not seem to include the records of exposure monitoring required by Section 57.5071(a). These records are useful to the mine operator, the miners' representative, and MSHA. They should be retained for a minimum of five years.

Finally, let me note that some members of the public health community may submit comments or briefs between now and October 14. While those comments may not agree with ours in every respect, we believe they should be given the same weight as the comments of any other party.

Miners' health is, after all, a subset of public health. We welcome the participation of any person or group that wants to see a strong, effective DPM regulation.

This concludes my oral testimony. Thank you for your consideration.