

Coal Mine Dust, and the Report of the Secretary of Labor's Advisory Committee on the Elimination of Pneumoconiosis Among Coal Workers. The individuals that contributed to these reports represented a wide spectrum of society including health professionals, mine operators, miners and their representatives, academia, engineers, lawyers, physicians, and health and safety specialists. While recognizing that significant progress has been made to reduce respirable dust levels in coal mines, these reports all concluded that there are existing practices in the federal program that should be changed to provide miners with improved health protection. This rulemaking was initiated to address many of the recommendations outlined in those studies.

The primary benefit of the changes recommended by the authors of the various studies, and subsequently in this proposal, is to reduce occupational lung disease among coal miners by improving the existing federal program to control exposure to respirable coal mine dust and quartz. That benefit is addressed in detail in this section. There are, however, other significant intangible benefits that will result from these program improvements.

As stated in the report of the Advisory Committee, one of MSHA's primary objectives must be to restore the confidence of individual miners that the federal program to control respirable dust will protect their health. The testimony of miners and their representatives made during the deliberations of at least two of the study groups found that coal miners believe that MSHA and operator sampling results are not representative of the mine environment to which they are exposed during normal mining operations. Consequently, many miners believe that overexposures are not being identified and corrected. This belief is attributable to several factors including, MSHA's policy of accepting as valid samples that were taken at production levels significantly below normal; the use of dust control measures during sampling that are not incorporated in the approved ventilation plan; and the averaging of multiple-shift sample results which can mask individual overexposures and prevent action from being taken to correct the condition. All of these practices are addressed in this proposal and, therefore, should significantly improve miner confidence that MSHA and operator sampling results are typical of the operating

conditions to which they are routinely exposed.

The requirement that operator sampling results be used by MSHA to make compliance determinations has been unfairly perceived by some as fundamentally flawed because operators allegedly have conflicting objective of avoiding citations and protecting miner health. This perception is difficult to address. As recommended by the Advisory Committee, this proposal eliminates the requirement that operator samples be used for compliance purposes. Operators will only be subject to enforcement action on their sample results if they fail to take action to correct any overexposure. Since only MSHA samples taken during unannounced inspections will be used to make compliance determinations, any real or perceived opportunity by mine operators to inappropriately impact sampling results will be eliminated or significantly reduced.

All of the studies recognized that significant improvements in preventing overexposure can occur if real-time continuous monitors were available. Such devices would allow exposure levels to be monitored during the production shift and action could be taken during the shift to prevent overexposure as miners approached the upper limit. This is in contrast to the current system that requires samples to be sent to a laboratory for analysis and, as a result, only allows for overexposures to be recorded rather than prevented. This proposal recognizes that the potential for the introduction of such continuous monitoring devices is likely in the near future. As a result, provisions are included for the use of such instruments in lieu of the current approved sampling devices. Accordingly, this proposal encourages the development and introduction of this new technology into coal mines to benefit miner health.

MSHA's belief that the projected 42 prevented cases of simple CWP and PMF over a 45-year working life likely understates the true number of cases of simple CWP and PMF is further supported by the fact that during the past few years, the Black Lung Benefits Program has been approving roughly 400 claims each year. Most of these claims come from individuals whose occupational exposure to respirable coal mine dust occurred under the current respirable coal mine dust program, including the 2.0 mg/m<sup>3</sup> standard, which began in 1972 (ESA, September 19, 2002). The observation that roughly 400 claims have been approved each

year, for the past several years, supports MSHA's belief that the true lifetime occupational health benefits of the proposed rules are higher than MSHA has been able to quantify. Even assuming that over time, the number of new claims would decline in future years simply due to the continuing decline in the number of coal miners, MSHA expects that assuring future exposures are maintained below the applicable dust standard would reduce the number of new cases of CWP than would otherwise occur.

In addition to the cases of simple CWP and PMF that would be prevented among the miners working on affected MMUs and RB-DAs, other health benefits would also be realized because the cumulative exposure to respirable coal mine dust would be limited to no more than the applicable standard on each and every shift. Health benefits associated with a reduction in exposures to respirable coal mine dust would include a decrease in incidence of silicosis, asthma, chronic bronchitis, and emphysema.

All cases of simple CWP and PMF, which MSHA expects to be prevented through promulgation of the single sample and plan verification rules and attributable to eliminating individual shift overexposures, are not expected to materialize immediately after overexposures have been substantially reduced or eliminated. Because these diseases typically arise after many years of cumulative exposure, allowing for a period of latency, and the pre-existing occupational exposure histories of members of the current coal mining workforce, the beneficial effects of reducing exposures are expected to become evident only after a sufficient time has passed so that the reduction in cumulative exposure could have its effect. The total realized benefits would not be fully evident until after the youngest of today's underground coal miners retire. If the size of this workforce substantially changed in the future and the projected pattern of prevented overexposures remained the same, the number of cases of prevented simple CWP and PMF would need to be adjusted to account for the change.

Various data, assumptions and caveats were used to conduct the benefits analyses. Therefore, MSHA requests any information which would enable it to conduct more accurate analyses of the estimated health benefits of the single sample and plan verification rules, both individually, and in combination.