

**REVIEW OF CRITERIA FOR A RECOMMENDED STANDARD OCCUPATIONAL EXPOSURE
TO RESPIRABLE COAL MINE DUST**

Submitted by:

1. Is the derivation of the Recommended Exposure Limit (REL) supported by the scientific data?

Yes.

Epidemiologic and clinical studies of coal miners in both Britain and the United States, as well as animal studies clearly indicate that the present standard of 2 milligrams per cubic meter is inadequate for prevention of coalworkers' pneumoconiosis, progressive massive fibrosis, and chronic obstructive lung disease.

2. Are the RELS for respirable coal mine dust and respirable crystalline silica technically feasible?

Yes.

Many sections of underground coal mines in the United States are currently achieving levels of respirable dusts below 1 milligram per cubic meter, and technology does exist for achieving these levels in most areas.

3. Should the proposed international definition of respirable dusts be recommended as the criteria for sampling respirable coal mine dust and respirable crystalline silica?

Yes.

The proposed international definition of respirable dust is preferable since it primarily is a functional definition rather than a mere physical description of harmful dusts deposited in the alveolar regions.

4. Should improvements in the Coal Mine Dust Personal Sampling Unit (CMDPSU) including all metal construction to minimize charge effects be recommended?

Yes.

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This change would eliminate distortions and artifact related to particle charge effects.

5. Should performance criteria be developed for approval of more than one type of sampling device?

I have no opinion concerning this.

6. Is the recommended sampling strategy reasonable on the basis of both statistical validity and practical considerations for the measuring of airborne concentration of respirable dust in coal mine environment?

Yes.

I believe the material provided is convincing in this regard. It is especially important to perform random unannounced inspections of working coal mine sections by MSHA inspectors.

7. Is the inclusion of spirometry testing in the medical surveillance program justifiable for the prevention for chronic obstructive lung disease in underground and surface coal miners?

Yes.

There is clear and convincing evidence that chronic airway obstruction may be the consequence of occupational dust exposure in the coal mining industry. Early detection of airway obstruction even absent x-ray abnormalities could lead to interventions which could reduce the likelihood of progression to severe impairment. I believe this would be a very valuable and much needed tool for this purpose.

8. Is the transfer of miners with evidence of coalworkers' pneumoconiosis (CWP) or chronic obstructive pulmonary disease (COPD) to low dust areas of the mine medically justifiable at the recommended concentration of respirable coal mine dust or respirable crystalline silica?

Yes.

While evidence to date does not suggest significant benefit as far as prevention of complicated pneumoconiosis is concerned, every effort should be made to minimize the adverse effects of coal mine dust exposure on individuals with evidence of chronic obstructive lung disease.

9. Are there additional issues or interpretations in information that need to be considered in the development of this criteria document?

Not at this time.