NIOSH Comments to DOL

COMMENTS OF THE
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
ON
THE MINE SAFETY AND HEALTH ADMINISTRATION'S
ADVANCE NOTICE OF PROPOSED RULEMAKING ON
NOTIFICATION, INVESTIGATION, REPORTS AND RECORDS OF
ACCIDENTS, INJURIES, ILLNESSES, EMPLOYMENT AND
COAL PRODUCTION IN MINES

30 CFR Part 50

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Institute for Occupational Safety and Health

2/24/89

The National Institute for Occupational Safety and Health (NIOSH) commends the Mine Safety and Health Administration (MSHA) on their existing reporting system under Title 30, Part 50 of the Code of Federal Regulations (30 CFR 50). MSHA's record in significantly reducing the number of fatalities in mining since 1970 is, in part, attributable to the effectiveness of reporting under the present 30 CFR Part 50, and the use of these data by MSHA personnel to identify and correct the sources of fatalities [NIOSH unpublished report; MSHA 1970-1987; Mine Regulation Reporter 1989]. Although the injury and fatality reporting aspects of 30 CFR Part 50 have been effective, some problems exist with the occupational illness (disease)* reporting requirements that we have addressed.

NIOSH opposes any reduction in the present 30 CFR Part 50 reporting requirements at this time. We are presently involved with the Bureau of Labor Statistics (BLS) in an attempt to upgrade the BLS data gathering system on occupational injuries in general industry. The experience and expertise developed in the BLS upgrade would be applicable to evaluating and developing the appropriate changes in the MSHA reporting system (e.g., The Keystone Center [Keystone 1989]).

For purposes of commenting on the MSHA advance notice of proposed rulemaking (ANPR) for notification, investigation, reports and records of accidents, injuries, illnesses, employment, and coal production in mines [53 FR 45878], NIOSH will address five separate areas: injury reporting, illness or disease reporting, accident investigation and reporting, employment and coal production reporting, and the MSHA Form 7000-1.

Injury Reporting

The Division of Safety Research (DSR) in NIOSH has extensively used the MSHA and the Bureau of Labor Statistics (BLS) reporting data. DSR understands that MSHA data are relatively comprehensive and accurate. The MSHA data permit DSR researchers to examine hazards associated with specific types of mining machinery, mining practices, and both total mining experience and current job experience.

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*NIOSH prefers the term occupational disease to occupational illness.

The "medical treatment" section of this definition is specifically pointed out by MSHA for comment. For this section, NIOSH bases the determination of an injury or illness (disease) on whether the injury or illness (disease) is a material or functional impairment to health. The present MSHA criteria for reporting injuries are based on a distinction between those requiring "medical treatment" and those requiring first aid only. This distinction has worked well for MSHA but might be improved. Treatment-related distinctions are not precise and may vary among mines depending on treatment facilities available. One mine which offers whirlpool therapy for its employees may have to report incidents as injuries, while another mine which only dispenses aspirin may avoid reporting. NIOSH would be willing to work with MSHA to develop a workable definition or catalog of injuries based on material or functional impairment to health.

The data from the MSHA injury reporting sections have frequently been used by NIOSH and specifically in the following instances:

1) DSR used MSHA data to develop several reports and presentations on heavy earthmoving equipment incidents. The MSHA data more extensively documented risk factors than BLS or industry sources. The study findings applied to both mining and construction industries.

2) The MSHA data are being used in a joint study of traumatic coal mining fatalities by DSR and the West Virginia Department of Health by linking MSHA data to NIOSH's National Traumatic Occupational Fatality (NTOF) database and the West Virginia Medical Examiner data.

3) The MSHA data have been extensively used in commenting on proposed MSHA rule changes.

Illness (Disease) Reporting

Illness (disease) reporting for occupations is somewhat subjective. Whether a condition represents an illness (disease) or an injury sometimes involves very fine distinctions, and further, whether a complaint may be occupationally related is subject to additional conjecture. The illness (disease) reporting requirements could be improved by distinguishing among chronic occupational diseases, acute occupational diseases and acute musculo-skeletal injuries. A further requirement for a material and/or functional impairment of health would be appropriate.

NIOSH has had extensive experience in dealing with the problems of reporting diseases in the workplace. Based on this experience, one of the primary needs for a useful reporting system is a list of reportable diseases. NIOSH would be willing to work with MSHA to develop such a list. An example of a proposed list of occupationally-related diseases for mining and general industry is described in an article by Rutstein [1983].

In developing a list of such reportable diseases, it should be noted that there are two distinct potential uses for disease reporting. First, there is the reporting of diseases known to be related to occupational exposures. Examples include nonmalignant chronic diseases such as silicosis or asbestosis, as well as malignant diseases such as lung cancer in asbestos workers. Surveillance of known occupational diseases provides assurance that primary protection programs and exposure levels are adequate.

A second type of disease reporting could include all diseases causing morbidity or mortality in workers, regardless of a known association with occupational exposures. Such an inclusive form of reporting could make possible the identification of disease clusters or unusually high rates of disease in particular occupations or occupational settings. Analysis of such data could lead to the recognition of previously unknown associations between occupational exposures and disease. An example of a situation where such data would be useful would be the comparison of lung cancer rates in diesel coal mines versus the rates in non-diesel mines.

The reporting of chronic occupational diseases requires special consideration. MSHA should consider defining the sources of disease information that operators should utilize for reporting purposes. For example, an operator would certainly know about a State's determination of a compensable disease award. In addition, MSHA should also consider providing miners with information regarding recognized occupational diseases which they are encouraged to report (or ask a physician to report) to the mine operator. MSHA may also wish to consider providing an alternate procedure for reporting occupational diseases directly (to MSHA), since miners may be motivated to not report certain occupational diseases to their employers.

Any disease reporting requirement should anticipate biological or medical monitoring requirements that are required or that may be proposed by MSHA, and should avoid inappropriate duplication of information.

Accident Investigation and Reporting

MSHA could develop a standardized Operator Report Form which might assist the mine operator in analyzing an accident and organizing a report. The report form should be comprehensive enough to identify the following information.

1. Accident identification information

   A. Location
   B. Time of occurrence
   C. Identification of primary people involved
   D. Description of injury, illness, damage, and other losses
   E. Type of accident/injury/illness
   F. Equipment involved, personal factors, job factors, and unsafe acts or conditions

2. Accident description

   A. Assignment and purpose of task
   B. Qualification and training
   C. Experience and proficiency
   D. Instructions and guides available for the task
   E. Conclusions of prior job analyses
   F. Equipment and serviceability
   G. Materials and their suitability
   H. Environmental influences
   I. Standards applicable
   J. Supervision
   K. Supervisory qualifications
   L. Previous deficiencies or deviations and actions taken to remedy them
   M. Proper job analyses and standard job procedures
   N. Inspection history
   O. Maintenance history
   P. Operational controls
   Q. Standards and program compliance
   R. Contributory personal factors
   S. Contributory job factors

3. List of unsafe actions or conditions causing the accident

4. Evaluation of potential severity and possibilities for reoccurrence

5. Plan of remedial action and control factors to prevent a reoccurrence

6. Written documentation of review by upper management

Employment and Coal Production Reporting

NIOSH uses the MSHA Form 7000-2 on Employment and Coal Production in conjunction with the Form 7000-1 to develop epidemiological data. From this perspective, the primary weakness is in the Form 7000-2. While Form 7000-2 provides useful basic exposure information, it does not report occupation-specific information on duration of exposure (hours worked at specific tasks) and intensity of exposure (specific

occupational distributions at the mine). The information would be more useful if the operator reported the number of employees per job classification per quarter, and the number of hours worked per job classification per quarter. This is based on the premise that job classifications could be grouped with common exposure factors, and without the number of groupings being so large as to be unworkable for the mine operators.

MSHA Form 7000-1

The MSHA Form is an excellent tool for gathering data on occupational injuries. NIOSH encourages MSHA to make certain minor improvements in this form. Section 9 of the form (describe fully the conditions contributing to the accident/injury/illness) would be improved by additional blocks to indicate (1) the use of personal protective equipment, (2) the employee was trained for the task being performed, (3) safe procedures were prescribed for the task, and (4) safe procedures were being followed.

Conclusion

NIOSH has found the MSHA reporting system to be useful and relevant in insuring safe and healthful conditions in mines. The reported injury data have been very useful to MSHA in improving working conditions for the Nation's miners.

The reported injury data are among the best available from any U.S. government regulatory agency. The cutoff between reportable and non-reportable injuries may be subject to some improvement by basing this discrimination on material or functional impairment to health as opposed to first aid.

The illness (disease) data could be improved by providing more specific disease categories. A more detailed subsample of mines utilizing electronic data collection techniques could be instituted.

Minor changes in the Form 7000-1 would provide more easily correlated data, and increased detail on the Form 7000-2 would allow a more precise determination of the occupational risks of specific mining operations.

The reliability and detail of MSHA's data benefit both the operator and the miner by providing for safety and health regulations that are protective to the miner and specific to the problem. The detailed analysis of safety problems possible with MSHA data allows MSHA to address very specific safety improvements related to particular equipment or particular operations. Adding more specific disease reporting requirements would potentially allow MSHA to address occupational disease with the same focus.

REFERENCES*

Keystone [1989]. Keystone work-related injury and illness recordkeeping project. Keystone, CO: The Keystone Center.

Mine Regulation Reporter [1989]. MSHA Report: 1988 mining fatalities lowest on record; haulage accidents claim most lives. Mine Regulation Reporter 2(2):20-21.

MSHA [1970-1987]. Mine injuries and work time quarterly. Denver, CO: U.S. Department of Labor, Mine Safety and Health Administration.

NIOSH [unpublished]. The National Traumatic Occupational Fatality Report, 1980-1985. Morgantown, WV: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health.

Rutstein D et al. [1983]. Sentinel health events (occupational): A basis for physician recognition and public health surveillance. Am J Pub Hlth 73(9):1054-1062.

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*Note: If requested by MSHA, NIOSH will provide these references.

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15. Supplementary Notes

16. Abstract (Limit: 200 words) This testimony concerns the position of NIOSH regarding the existing reporting system of the Mine Safety and Health Administration (MSHA). NIOSH opposes any reduction in the present reporting requirements at this time. NIOSH is presently involved with the Bureau of Labor Statistics (BLS) to upgrade the BLS data gathering system on occupational injuries in general industry. NIOSH addresses five specific areas related to the proposed rulemaking including injury reporting, illness or disease reporting, accident investigation and reporting, employment and coal production reporting, and the MSHA Form 7000-1. In reviewing the current reporting system and data generated by it, NIOSH concludes that the reported injury data are among the best available from any United States governmental regulatory agency. The illness data could be improved by providing more specific disease categories. Minor changes in the Form 7000-1 would provide more easily correlated data. The reliability and detail of the MSHA's data benefit both the operator and the miner by providing for safety and health regulations that are protective to the miner and specific to the problem.

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