

MSHA Noise Enforcement Workshop
30 CFR Part 62
“Occupational Noise Exposure”
November 9, 2005
At
Le Tourneau University Campus
Memorial Student Center, 3rd Floor
2100 S Mobberly Avenue
Longview, Texas 75602

QUESTIONS and ANSWERS

1. Where are we (industry and MSHA) in the process of compliance with the standard and with “Hearing Loss Prevention”?

Answer: There were a number of presentations given at the Charleston, West Virginia “Hearing Loss Prevention Workshop” by equipment manufacturers that indicate the industry could expect quieter mining equipment to be designed and produced for the US market. This is evidenced by the equipment being sold internationally. No exhaustive data analysis on current rates of miner hearing loss or mining equipment noise emissions levels is known to exist.

2. How does MSHA assure equal enforcement of the standard when mining methods and conditions differ so much from district to district?

Answer: MSHA has conducted training for the entire inspectorate. This training included instruction on all of the directives that have been given as a part of today’s workshop both in presentation and resource materials. We have also instructed stakeholders across the country by conducting these Noise Enforcement Workshops on Part 62. MSHA’s Technical Support Directorate is committed to maintaining updated information on effective noise control approaches and publishing that information for use nationwide by stakeholders.

3. (Related Questions)

Everybody knows that hearing protection effectively reduces noise exposure. What was MSHA’s reasoning when it decided not to recognize hearing protection in the calculation of PEL dose?

MSHA gives credit for PPE’s such as welding hoods, electrical gloves, safety glasses, etc., however, MSHA gives “Zero” credit for hearing protection such as ear plugs and muffs. What is the logic behind this?

OSHA recognizes hearing protection as a means of complying with the law. Why does MSHA not do the same?

Why can’t we get credit for using plugs/muffs?

A miner is exposed to a noise level of 90 dBA, during that time the miner wears his/her

dual hearing protection. What would be the level the miner is exposed to? Does MSHA recognize this?

If a miner is at the PEL but below the DHPL, can the required use of dual protection help satisfy the requirement to use engineering controls?

Answer: MSHA's Noise rule requires the use of engineering and administrative controls as the primary means of controlling miners' exposure to noise. If a miner's exposure exceeds the permissible exposure level (90 dBA, 8-hour Time-Weighted Average (TWA8)), the mine operator must use all feasible engineering and administrative controls to reduce exposure to within the permissible level, or to as low a level as is feasible. If the use of all feasible engineering and administrative controls fails to bring the miner's exposure within the permissible exposure level, the mine operator must provide and ensure that the miner wears hearing protection. The rule places engineering and administrative controls on equal footing and requires that mine operators use all feasible controls, of both types if necessary, to address noise exposure.

This "hierarchy of controls" is considered to be a positive, "technology-forcing" aspect of the Noise rule and is consistent with generally accepted industrial hygiene principles. Engineering controls are generally considered to provide the most effective and reliable protection, since they provide a permanent method of modifying the noise source, the noise path, or the environment of the miner exposed to the noise. They do not depend upon individual performance or human intervention to function. MSHA believes that administrative controls, which reduce exposure by limiting the amount of time that a miner is exposed to noise through such actions as rotation of miners to areas with lower sound levels, rescheduling of tasks, or modifying work activities, can be as effective as engineering controls. Administrative controls are typically less costly than engineering controls. MSHA's noise rule does not permit hearing protectors (which can be easily removed by the miner) to be substituted for engineering and administrative controls. This hierarchy of controls is consistent with the statutory framework of the Federal Mine Safety and Health Act of 1977 (Mine Act) and more protective of miners. During the rulemaking process, MSHA reviewed the procedures for exposure measurement in several regulations and codes of practice (mandatory or recommended). Included in this review were examinations of the measurement practices of OSHA, selected branches of the U.S. armed services, international communities, the International Standards Organization, American National Standards Institute, and the American Conference of Governmental Industrial Hygienists. Although a variety of methods are used by these organizations, nearly all of the entities either specified or implied that noise reduction provided by hearing protectors should not be considered in determining a worker's noise exposure.

The Agency's past experience with the "Improved Noise Program Policy," implemented by MSHA in 1987 for the coal mining sector educated us concerning the calculation of exposure. This policy provided mine operators with compliance credit for hearing protection and resulted in the almost complete cessation of development and implementation of new noise control

technology in the coal mining industry. It was observed that by age 64, 80 percent of coal miners had a moderate to profound hearing loss. However, the experience in the metal and nonmetal mining industry, which did not have a similar policy implemented, demonstrated the complete opposite trend, and significant development and implementation of engineering and administrative noise controls. MSHA discussed this situation in the preamble to its rule noting that:

Comparing the two types of mining, there were significantly more reported hearing loss cases at coal mines than at metal and nonmetal mines, and a higher proportion of those cases were reported of workers who began working after the implementation of the current standards. This is despite the fact that, at present, there are more metal and nonmetal miners than coal miners employed in the United States. A possible explanation of the difference between reported cases of noise induced hearing loss among coal and metal and nonmetal miners may be that there is more frequent use of engineering noise controls in metal and nonmetal mining. Because the occupational noise standards for coal mines allow inspectors to take into account the use of hearing protectors in determining compliance, most coal mines use hearing protectors for compliance unless the engineering controls are inexpensive or come with the equipment. 64 Fed. Reg. 49568.

It is significant to note that since the implementation of MSHA's noise standard in 2000, the Agency has witnessed a renewed emphasis on the part of manufacturers to develop quieter mining equipment and retrofit noise controls.

Hearing protection is a required element of the mine operator's hearing conservation program. MSHA considers or "credits" the use of hearing protection in making the evaluation of non-S&S in the "Section II-Inspector's Evaluation; 10. Gravity: C. (MSHA Form 7000-3)" when a citation is issued for the violation of 30 CFR 62.130 or

62.140. Coal Mine Health Inspection Procedures Handbook, Chapter 3, Noise (M/NM Chapter N) III. L. 4.

4. MSHA's Metal and Non-metal has given lots of P-codes and Coal has not, why?

Answer: Since the rule became effective September 13, 2000 there has been 39 P-codes issued at metal and nonmetal mines and 3 at coal mines. All instances of noise overexposures that can not be reduced to permissible exposure levels using feasible engineering and administrative noise controls that have been documented and submitted have been reviewed. There are no documented overexposure situations pending review.

5. What is the requirement for a person to be able to conduct HCP training and/or noise sampling under Part 62? Is there a MSHA certification for trainers or those conducting sampling?

Answer: Federal Register / Vol. 64, No. 176 on page 49624 and 49625 addresses this question in part. "The final rule does not provide detailed requirements for the training provided by the mine operator...The final rule requires that certain topics be covered by this training, but does not specify how long the training must last nor what

qualifications the training instructors must have...MSHA recommends that mine operators tailor the training provided under the final rule to the operations at their mines...Effective training of miners serves to enlist miner participation in hearing conservation...Section 62.180(b) of the final rule adopts the proposed requirement that the mine operator certify the date and type of training given each miner and maintain the miner's most recent certification for as long as the miner is enrolled in the hearing conservation program and for at least 6 months thereafter. "

If the videotape "Hearing Conservation, MSHA Part 62" (Available from the National Mine Health & Safety Academy) is used during the training the requirements of content specified in 62.180 will be adequately covered.

30 CFR 62.110(a) states "The mine operator must establish a system of monitoring that evaluates each miner's noise exposure sufficiently to determine continuing compliance with this part." MSHA has not required that those conducting exposure assessments be certified by MSHA. Noise sampling (exposure assessments) must be conducted in accordance with the instructions outlined by IG 32 <http://www.msha.gov/1999noise/ig32.pdf> .

6. Is a record of an audiometric test a "medical record"? Is it protected as confidential medical information under the new HIPAA legislation?

Answer: 30 CFR 62.190(a) states "The authorized representatives of the Secretaries of Labor and Health and Human Services must have access to all records required under this part." The HIPAA regulations permit employers to disclose protected health information to MSHA in order to comply with the Mine Act and MSHA regulations. Confidential information should not be part of the Part 62 records.

7. Does anyone use or has MSHA tested electronic noise canceling hearing protectors?

Answer: The MSHA Technical Support Center had conducted evaluations of some commercially available electronic hearing protectors. These electronic hearing protectors were categorized as either active noise cancellation, or noise level delimiting devices. In either case, any electronic hearing protector had to meet the MSHA 2-G permissibility regulation for use in an underground gassy environment. For the evaluation, one noise cancellation protector and several noise level delimiting protectors were tested. From the evaluation conducted, it was determined that a few devices actually amplified sound at certain frequencies. This amplification resulted in the sound level under the muff to be raised above the Action Level. Also, as discussed in other areas, hearing protection of any type can not be used in lieu of engineering and/or administrative controls.

8. A miner is working in a high noise area (the area is posted as such) he is wearing Peltor muff type hearing protector, but not properly (not tight against his head and ears). He is re-instructed in the proper use of the muffs and is still found to not be using the protectors properly. What is the mine operator's obligation under Part 62?

Answer: 30 CFR 62.160 (a)(3)&(b) states "Ensure that the hearing protector is in good condition and is fitted and maintained in accordance with the manufacturer's

instructions;...The mine operator must ensure, after satisfying the requirements of paragraph (a) of this section, that a miner wears a hearing protector whenever a miner's noise exposure exceeds the permissible exposure level before the implementation of engineering and administrative controls, or if the miner's noise exposure continues to exceed the permissible exposure level despite the use of all feasible engineering and administrative controls."

If the noise is above the permissible exposure level and the miner's baseline audiogram is delayed more than 6 months or the miner has incurred a standard threshold shift the use of hearing protectors is mandatory. The rule only specifies that the mine operator "ensures that a miner wears" it does not specify how the mine operator is to accomplish this.

9. What recourse does an employer have if a miner refuses to wear hearing protection and/or refuses to take an audiometric test?

Answer: See the answer to Question 10 if a miner refuses to wear hearing protection.

The table provided in 30 CFR Part 62 between 62.140 and 62.150 establishes that audiometric testing is voluntary.

Provision	Condition	Action Required by the Mine Operator
§ 62.120	Miner's noise exposure is less than the action level	None
§ 62.120	Miner's exposure equals or exceeds the action level, but does not exceed the permissible exposure level (PEL)	Operator enrolls the miner in hearing conservation program (HCP) which includes (1) a system of monitoring, (2) voluntary ,with two exceptions, use of operator-provided hearing protectors, (3) voluntary audiometric testing , (4) training, and (5) record keeping.
§ 62.130	Miner's exposure exceeds the PEL	Operator uses/continues to use all feasible engineering and administrative controls to reduce exposure to PEL; enrolls the miner in a HCP including ensured use of operator-provided hearing protectors ; posts administrative controls and provides copy to affected miner; must never permit a miner to be exposed to sound levels exceeding 115 dBA.
§ 62.140	Miner's exposure exceeds the dual hearing protection level	Operator enrolls the miner in a HCP, continues to meet all the requirements of § 62.130, ensures concurrent use of earplug and earmuff.

30 CFR 62.170(a) states in part that “The mine operator must offer miners the opportunity for audiometric testing”. Therefore, the mine operator must offer audiometric testing, but submitting to such testing is voluntary on the part of the miner. If the miner declines the testing there is no record for the operator to keep. MSHA suggests that the mine operator keep a record of “offer and decline” to avoid controversy during inspection. If an operator places upon the miner conditions of employment such as wearing hearing protection and submitting to audiometric testing it is beyond the jurisdiction of MSHA.

10. How many citations has MSHA issued for occupations that are tasked with air arc welding/cutting?

Answer: Six (6)

11. Has guidelines been established for the evaluation of economic feasibility?

Answer: The consideration of whether the cost of the controls would be wholly out of proportion to the reduction in noise exposure expected by their implementation is used to determine feasibility. (Reference: Coal Mine Health Inspection Procedures Handbook, Chapter 3, Noise III.K.)

12. Do engineering controls have to provide a minimum of 3 dBA reduction in dose to be considered feasible? Example: If a control only produces a 2 dBA reduction, does the mine operator have to implement additional controls to get the other 1 dBA?

Answer: MSHA intends to continue its longstanding policy currently in effect for metal and nonmetal mine operators of determining what constitutes an effective control, i.e., where a control or a combination of controls could achieve at least a 3 dBA reduction in noise exposure. This represents a 50% reduction in sound energy. Where a single engineering control does not provide at least a 3 dBA reduction in a miner's noise exposure, you must consider the expected level of reduction from a combination of technologically available controls. Where a suite of controls is utilized their collective cost will be considered to determine the economic feasibility.

13. The second (2nd) scenario for the assignment of a P-code requires the issuance of a citation. Aren't P-codes and citations mutually exclusive?

Answer: Coal Mine Health Inspection Procedures Handbook, Chapter 3, Noise

III.N.1.b. contains the referenced 2nd scenario. The illustration used during the presentation and part of the noise enforcement policy was and is to inform that a P-code may be issued where a citation has or has not been issued. The handbook makes plain that compliance with Part 62 must be attained before the P-code process can begin.

14. If I stud weld on a canopy, ROPS, or FOPS how hard is it to get the OEM to certify?

Answer: Before any work is considered, to maintain certification of any ROPS, FOPS, etc., there are two items that must be adhered to. First, the OEM must be contacted, and written instructions/permission must be obtained. As part of the instructions/permission, only a certified welder can weld on the ROPS, FOPS, canopy

etc. With regard to spot welding on a ROPS, FOPS, canopy, etc., the OEM must still be contacted. Spot welding process typically utilizes a lower voltage, current, and contact time in the process as compared to regular welding. Thus the potential impact on structural integrity is significantly less. Secondly, after permission from the OEM is received, the proposed work on the structure should be discussed with local MSHA inspector.

As an alternate approach, instead of utilizing a spot welder to adhere metal studs to the cab interior, "stick on" studs can be used. The "stick on" stud is a metal stud that have been pre-welded to a metal disc. On the back side of the metal disc is an adhesive backing. Once the interior metal surfaces of the cab are cleaned of dirt, grease, etc., the "stick on" studs can be pressed into place and held firm with the adhesive backing.

Then the acoustical materials can be inserted onto the studs and anchored with a cover button, identical to spot welded stud procedure.