

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

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In Reply To:

1112 (930.KV) P

July 2, 2004

EMAIL TRANSMISSION – 7/2/04

Instruction Memorandum No. MT-2004-075

Expires: 9/30/05

To: State Management Team

From: State Director

Subject: Hearing Conservation Program (HCP)

DD: 8/27/04

The Bureau of Land Management, Montana/Dakotas organization, adheres to a policy of providing a workplace free from recognized occupational health hazards. Noise levels of sufficient intensity to cause permanent hearing loss are a recognized occupational health hazard. The purpose of this instruction memorandum is to reissue the HCP (Attachment 1). Implementation of this program is mandatory where hazardous noise levels exist in the workplace.

Field offices are to conduct surveys of the workplace to determine if employees are exposed to excessive noise. Offices are directed to submit a negative response, or to issue a site-specific, written HCP plan. Responses are due to MT-930 by August 27, 2004.

Attachment 2 is a sample written HCP which meets the BLM and Occupational Safety and Health Administration (OSHA) 29 CFR 1910.95 standards. It is designed to provide field office/station personnel with a practical and understandable tool to implement an effective HCP. More importantly, when implemented, it should protect BLM personnel from hearing loss due to excessive noise exposure while conducting official duties.

When the work area or task noise levels reach 85 dBA (recorded as a time-weighted average, slow response), using a properly calibrated sound level meter or noise dosimeter, all of the provisions of the attached program apply.

Questions or requests for assistance should be directed to Karilynn Volk, at 406-896-5190, Lisa Engelmann, at 406-896-5193, or your Field Office/Station collateral duty safety officer.

Signed by: Martin C. Ott

Authenticated by: Aleta Zahorodny (MT-930)

2 Attachments

1-MT/DAK Hearing Conservation Program (6 pp)

2-Sample Site-Specific HCP Plan (9 pp)

Distribution w/attn.

Assistant Field Manager, Glasgow Field Station

Assistant Field Manager, Havre Field Station

(WO-740), Phyllis McKoy, MIB, Room 2044

# **HEARING CONSERVATION PROGRAM (HCP)**

## **BLM MONTANA/DAKOTAS**

**1.1 Purpose.** The purpose of this program is to establish requirements and procedures that will eliminate, prevent, or minimize the risk of hearing loss or impairment from exposure to excessive levels of noise in the work environment.

**1.2 Scope.** This program applies to all activities in the Montana/Dakotas BLM where excessive noise is present.

**1.3 Policy.** The Bureau policy is to provide a work environment which does not impair an employee's hearing.

### **1.4 Authority.**

- A. Occupational Safety and Health Act of 1970 (OSHA), Section 19, Federal Agency Safety and Health Program.
- B. Executive Order 12196, Occupational Safety and Health Programs for Federal Employees.
- C. 29 CFR 1910.95 - Occupational Noise Exposure.
- D. 29 CFR 1910.132 - OSHA Personal Protective Equipment Standard

**1.5 Responsibilities.** The following responsibilities supplement those contained in BLM Safety and Health Handbook H-1112-1 Chapter 16.4 and BLM Handbook for Field Operations H-1112-2 Topic 7.4

- A. The State Safety and Health Specialists are the HCP administrators for the Montana/Dakotas BLM. They are responsible for providing/coordinating technical support to supervisors and project leaders requesting assistance in implementation of the HCP. They will evaluate and monitor the effectiveness of this program.
- B. Field Office/Station collateral duty safety officers have the responsibility to coordinate on-site noise level monitoring, schedule audiometric examinations for involved personnel, and provide training. If appropriate, they will develop a written site-specific HCP utilizing the attached guidance.
- C. Supervisors and/or Project Leaders will determine expected noise exposure and implement program requirements in accordance with guidance provided in this policy.
- D. Employees will participate in the HCP and wear hearing protection as required in this policy.

### **1.6 Definitions.**

- A. Administrative Controls. Any procedure which limits noise exposure by control of the work schedule. The use of hearing protectors does not constitute administrative controls.

- B. Attenuation. The amount of noise reduction afforded an employee by use of a hearing protector.
- C. Audiometric Testing. The measuring of hearing acuity at specified sound frequencies.
- D. Audiogram. A graph or table of hearing levels determined by audiometric testing.
- E. Baseline Audiogram. The first BLM audiogram of record.
- F. dB(A) (decibel A-weighted). The basic unit for the measurement of sound levels within human perception range.
- G. Engineering Control. Any design modification that reduces or contains the emitted or transmitted sound level from any noise source.
- H. Employee. The term includes BLM employees and volunteers.
- I. Excessive Noise Levels. Any noise level 85 dBA and above.
- J. Standard Threshold Shift. A change in hearing threshold relative to the baseline audiogram of an average of 10 dBA or more at 2000, 3000, and 4000 Hz in either ear.

### **1.7 Program Requirements.**

#### A. Excessive Noise Producing Operations and Equipment.

(1) The following excessive noise producing operations and equipment require hearing protectors:

(a) Any employee engaged in operations or use of equipment of the type listed in Appendix 2 must wear hearing protectors. Employees working in close proximity to these operations or equipment may also be required to wear hearing protectors.

(b) Each piece of noise-producing equipment should be measured, as levels will vary by manufacturer and condition of use; i.e., whether equipment has cab or air conditioner is in use.

(c) In instances where employees and/or supervisors believe noise exposure to operations or equipment listed in Appendix 2 is below 85 dBA, actual measurement must be taken and documented.

(2) For any other operation or equipment suspected of producing an excessive noise level, actual measurements will be taken.

(3) A record of all noise measurements will be maintained by the collateral duty safety officer at the Field Office/Station. A copy will be routed to MT-930, State Safety and Health Specialists.

(4) Actual noise measurements will be taken by a calibrated sound level meter or noise dosimeter which is positioned in vicinity of the operator's ear.

#### B. Conservation and Controls.

(1) If the noise level is at all times below 85 dBA, engineering controls, administrative controls, and hearing conservation measures are not required.

(2) If noise levels are 85 dBA but less than 90 dBA, no engineering or administrative controls are required. The compulsory use of hearing protectors will apply. An audiometric testing program will also be implemented and maintained.

(3) If noise levels are above 90 dBA, engineering controls must be evaluated. If application of engineering controls are not adequate, administrative controls must also be applied to reduce the noise exposure to below 90 dBA. The audiometric testing program and the required use of hearing protectors will also apply to these employees.

(4) If a change occurs that would permanently alter the noise level of any operation or piece of equipment, a new noise measurement is required.

#### C. Audiometric Testing Program.

(1) A baseline audiogram shall be made of each employee whose noise exposures equal or exceed an 8-hour time weighted average of 85 dBA.

The baseline audiogram will be recorded after at least 14 hours without exposure to excessive noise. The use of hearing protectors prior to the baseline audiogram may be considered non- exposure to excessive noise.

(a) The audiometric test will be administered by a certified audiologist, otolaryngologist or other physician, or technician who is certified by the Council of Accreditation in Occupational Hearing Conservation. A technician who operates microprocessor audiometers does not need to be certified.

(b) The employee will be tested at the following frequencies: 500, 1000, 2000, 3000, 4000, and 6000 Hertz (Hz). Calibrated testing equipment must be used.

(2) At least annually from the latest test or retest, as required by the examiner, a new audiogram will be obtained. An exit audiometric test is required upon termination of employment.

An exit test is also required for seasonal employees (or others hired for less than 1 year) who were exposed to excessive noise levels.

(3) All audiometric records shall be routed through the State Safety and Health Specialists (MT-930) to Branch of Human Resources Management (MT-933) for filing in the Employee Medical File. These records shall include all audiograms, related evaluations, and audiometric reports.

When a standard threshold shift occurs, a copy of the audiometric report will be routed to the State Safety and Health Specialists (MT-930).

(4) Audiometric tests will be paid for out of participating employee's unit funds.

#### D. Hearing Protectors.

(1) It is the BLM's responsibility to follow the OSHA recommended noise levels to make certain all employees are protected against hearing loss. Hearing protection is **mandatory** for all employees involved in work assignments with the potential for hearing damage. The Risk Management (RM) process will be used to identify hearing protection for site and job specific activities.

(2) Supervisors are responsible for issuing protection devices and monitoring employee compliance in use of hearing protection. Each employee is responsible for wearing hearing protection in those areas where mandatory use has been designated. Employees are responsible for requesting immediate replacement of lost or damaged hearing protection devices. Employees are responsible for the proper use and cleaning of hearing protection devices. Instructions regarding the proper use and cleaning should be provided to the employees by their supervisor or the Field Office/Station collateral duty safety officer.

(3) The two major types of hearing protectors are muffs and earplugs. Each type of hearing protector is rated by the manufacturer as to its attenuation value or Noise Reduction Rating (NRR). The NRR is correlated with an employee's noise environment to assess adequacy of the particular hearing-protective device. See Appendix 1 for protection selection criteria.

E. Caution Signs. On equipment and at entrances or in areas where employees may be exposed to noise levels in excess of 85 dBA, clearly worded caution signs shall be posted.

Appendix 1, Table G-16 Permissible Noise Exposures.

Appendix 2, Excessive Noise Producing Operations and Equipment

Appendix 1

**Table G-16 Permissible Noise Exposures**

Duration per day, hours	Sound level dBA	(slow response)
8.....		90
6.....		92
4.....		95
3.....		97
2.....		100
1 1/2.....		102
1.....		105
1/2.....		110
1/4 or less.....		115

Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

29 CFR 1910.95(b)(1) When employees are subjected to sound exceeding those listed in Table G-16, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the levels of Table G-16, **personal protective equipment shall be provided and used to reduce sound levels within the levels of the table.**

Noise Reduction Rating (NRR) for hearing protection device (EPA requires the NRR on the package).

Subtract 7 from the NRR.

Subtract the remainder from the dB of exposure in Table G-16 to determine **Duration of Exposure Allowable per day.**

EXAMPLE

**Exposure is 115 dB**

NRR=29-7=22 115-22=93 Table G-16 = 4+ hrs per day with this NRR.

NRR=33-7=26 115-26=89 Table G-16 = 8 hrs per day with this NRR.

Appendix 2

**Excessive Noise Producing Operations and Equipment**

Below are typical noise levels for equipment found in some BLM workplaces. This list is provided as a guide only, actual noise levels vary by manufacturer and condition/maintenance of machinery or equipment. Measurements were taken at the employee point of operations.

Shop Equipment

Table Saw	110-115 dB
Router	110-115 dB
Band Saw	100 dB
Hand Power Saw	110-115 dB
Planer	110-115 dB
Chop-Saw	90-95 dB
Power Drill	95 dB
Grinder	100-110 dB
Steam Cleaner	95 dB

Heavy Equipment

Forklift	90 dB
Road Grader	90-95 dB
Front End Loader	90-95 dB

Specialized Equipment

Riding Mower	95-100 dB
Weed Trimmer, Gas	95-100 dB
Chain saw	110 dB

Aircraft

Helicopter	110-115 dB (Outside 1 to 50 feet)
“	90-100 dB (Inside)
Turbine Aircraft	110-115 dB

Other

Shotgun 12 GA.	140 dB
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## WRITTEN HEARING CONSERVATION PROGRAM

Field Office/Station: \_\_\_\_\_

Field Office/Station Manager: \_\_\_\_\_ Telephone: \_\_\_\_\_

Collateral Duty Safety Officer: \_\_\_\_\_ Telephone: \_\_\_\_\_

Date this program implemented: \_\_\_\_\_

The Bureau of Land Management, Montana/Dakotas organization, adheres to a policy of providing a workplace free from recognized occupational health hazards. Noise levels of sufficient intensity to cause permanent hearing loss are a recognized occupational health hazard. The implementation of this program is mandatory where hazardous noise levels exist in the workplace.

The Hearing Conservation Program Administrators for the Montana/Dakotas are the State Safety and Health Specialists. They are responsible for evaluating and monitoring the effectiveness of this program.

This written program is a part of a comprehensive hearing conservation program which meets the BLM and Occupational Safety and Health Administration 29 CFR 1910.95 standards. It is designed to provide the Field Office/Station personnel with a practical and understandable tool to implement an effective HCP. More importantly, when implemented, it should protect BLM personnel from hearing loss due to excessive noise exposure while conducting official duties.

When work area or task noise levels reach 85 dBA, recorded as a time weighted average (slow response) using a properly calibrated sound level meter or noise dosimeter, all of the provisions of this program apply.





3. The following areas of this facility are identified as producing noise levels between 85 and 99 dBA. These areas are posted black on yellow, "Caution High Intensity Noise Area."

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Area	Sound Level	Hearing Protection

4. The following areas of this facility are identified as producing noise levels greater than 99 dBA. These areas are posted black on red and white, "Danger High Intensity Noise Area."

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Area	Sound Level	Hearing Protection

5. A "walk-through" survey of the workplace may be quickly and inexpensively done with a basic sound level meter which is available on loan from the State Safety and Health Specialists, MT-930. Spot readings and estimates of exposure duration are sufficient to determine the need for a more complete evaluation. Whenever normal conversation cannot be heard at a distance of two feet, noise monitoring will be conducted. If the results of the "walk-through" survey indicate that OSHA's noise standard may be exceeded, additional monitoring is necessary using a noise dosimeter placed in the employee's hearing zone. The noise monitoring will be conducted by the Field Office/Station collateral duty safety officer or by the employee's supervisor.

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Area	Date	Sound Level	Technician

6. All employees working in areas which reach 85 dBA are provided training in hearing conservation to establish a working knowledge sufficient to protect them from noise hazards. Training may be accomplished through formal classroom instruction, videos "Hearing Conservation Safety" or "Hearing Conservation and Safety" available from MT-930 or other video resources, and by tailgate presentations on proper use, fitting and care of hearing protective devices. Instructors may include the State Safety and Health Specialists, supervisors, field office/station collateral duty safety officer, contractors, and other facility personnel. The training provided includes the following subjects:

- A. The effects of noise on hearing
- B. The purpose of hearing protection
- C. The use and limitations of hearing protection
- D. The fitting and care of hearing protective devices.
- E. The purpose and an explanation of audiometric testing
- F. The OSHA Occupational Noise Standard, 29 CFR 1910.95, an individual copy and one posted in the workplace
- G. An explanation of workplace noise monitoring procedures
- H. A point of contact to access monitoring data.



7. The equipment utilized to survey the noise levels in these workplaces has been properly calibrated by a professional technical service representative prior to loaning to the Field Office/Station. The sampling was conducted in accordance with 29 CFR 1910.95 and its appendices:

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Type of Equipment	Technician	Date

8. The audiometric equipment utilized to assess the hearing of the employees in this facility meets the OSHA and ANSI standards, is operated by a certified technician, and the calibrations are maintained.

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Type of Equipment	Certified Technician/Contractor



11. Engineering and administrative controls are recognized as the preferred methods of controlling noise exposure in the workplace. These controls will be studied and implemented whenever and wherever feasible. Examples of engineering controls most likely to be considered in BLM activities include: (1) maintenance and adjustment of machinery, (2) elimination or substitution of noisy equipment with quieter equipment, (3) vibration mounting, (4) barriers and partitions. Examples of administrative controls are: (1) limit employee's time in noise hazard area, (2) limit duration of noisy operation, (3) increase distance between employee and noise source(s).

Noise Source	Area	Engr/Admin Control	Noise Levels	
			Before	After

12. **Noise exposure measurement records** must be kept for two years according to 29 CFR 1910.95. **Audiometric test results** shall be retained for the duration of the affected employee's employment. Audiometric test records must include the name, job classification, date of audiogram, examiner's name, date of the last acoustic or exhaustive calibration of the audiometer, the background sound pressure levels in audiometric test rooms, and the employee's most recent noise exposure measurement.

Records shall be forwarded from the Field Office/Station collateral duty safety officer or contractor providing the audiometric test results to MT-930, State Safety and Health Specialists. Following their review, the documents will be sent to MT-933 for filing in the respective Employee Medical Files.

The need to make noise exposure data available to individuals conducting the same or similar tasks, or working in a noisy area, who were not individually monitored is recognized. These individuals may obtain noise monitoring data, representative of their individual exposure, when available, from either the Field Office collateral duty safety officer or from MT-930, State Safety and Health Specialists.