

MSHA Noise Program History, Regulation and Procedures

***CMS&H Health Division
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History and Analysis of the Noise Rule

- ***The rule was promulgated in 1999 and became effective in September 2000.***
- ***A brief analysis of the rule's effect on noise-induced hearing loss claims, citations, and compliance follows.***

Definitions

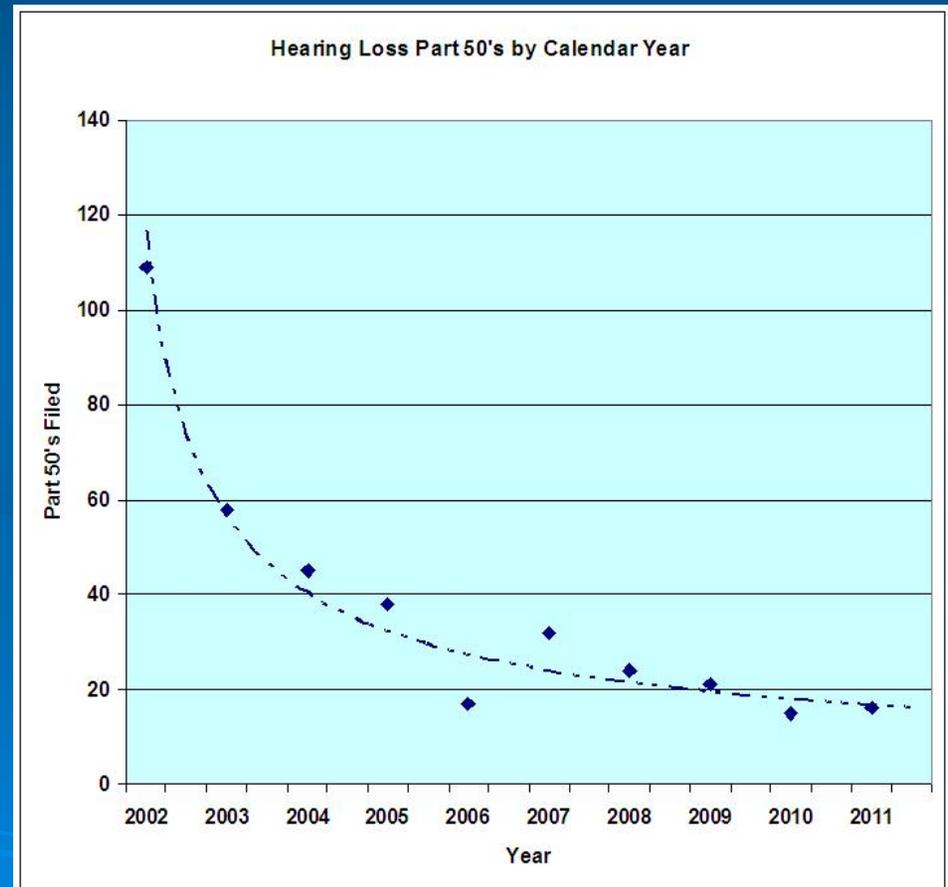
- Part 50 Report: Accident report the mine operator is required to file upon notification of an injury or illness
- NIHL: Noise-Induced, Hearing Loss
- AL: Action Level
- PEL: Permissible Exposure Level
- HPD: Hearing Protection Devices

Hearing Loss Part 50 Reports (Coal) by Calendar Year

Hearing Loss Part 50's by Calendar Year*		
Year	Number	Percentage
2001**	16	4.09
2002	109	27.88
2003	58	14.83
2004	45	11.51
2005	38	9.72
2006	17	4.35
2007	32	8.18
2008	24	6.14
2009	21	5.37
2010	15	3.84
2011	16	4.09
Total	391	100

*October 2001 through September 2011

**October 1, 2001 through December 31, 2001



Hearing Loss Part 50 Reports by District

Hearing Loss Part 50's by District*		
District	Number	Percentage
1	3	0.77
2	2	0.51
3	109	27.88
4	191	48.85
5	8	2.05
6	5	1.28
7	1	0.26
8	1	0.26
9	30	7.67
10	0	0.00
11	1	0.26
12	40	10.23
Nation	391	100
West Virginia accounts for approximately 340 of 391. (87.0%)		

*October 2001 through September 2011

Hearing Loss Part 50's by District***		
District	Number	Percentage
1	1	2.78
2	2	5.56
3	14	38.89
4	8	22.22
5	2	5.56
6	1	2.78
7	1	2.78
8	1	2.78
9	2	5.56
10	0	0.00
11	0	0.00
12	3	8.33
Nation	36	100
West Virginia accounts for approximately 25 of 36. (69.4%)		

***October 2009 through September 2011

Note: Claims in West Virginia began to decline in 2005-2006 when Worker's Compensation was privatized and the filing/eligibility requirements became more stringent.

Hearing Loss Part 50 Reports by Mine-Type and Occupation

Hearing Loss Part 50's - Underground Mines*		
Occupation	Number	Percentage
Laborer	69	25.46
Mechanic	28	10.33
Supervisor	27	9.96
Roof Bolter Operator	26	9.59
Electrician	23	8.49
Shuttle Car/Coal Hauler Operator	20	7.38
Continuous Miner Operator/Helper	17	6.27
Beltman/Conveyor Crew	14	5.17
Motorman	11	4.06
Scoop Operator	9	3.32
Vent/Bratticeman	4	1.48
Pumper	3	1.11
Welder	3	1.11
Supplyman	2	0.74
Crane Operator	2	0.74
LW Jacksetter	2	0.74
Rotary Dump/Shakeout Operator	2	0.74
All Others	9	3.32
Total	271	100

*October 2001 through September 2011

Hearing Loss Part 50's - Surface Mines*		
Occupation	Number	Percentage
Bulldozer Operator	32	39.02
Mechanic	8	9.76
Truck Driver	8	9.76
Laborer	8	9.76
Crane Operator	6	7.32
Oiler/Greaser	5	6.10
Welder	5	6.10
Electrician	3	3.66
Supervisor	3	3.66
Drill Operator	1	1.22
Endloader Operator	1	1.22
Engineer	1	1.22
Grader Operator	1	1.22
Total	82	100

*October 2001 through September 2011

Hearing Loss Part 50's - Surface Facilities*		
Occupation	Number	Percentage
Plant Operator	8	21.05
Crane Operator	7	18.42
Bulldozer Operator	4	10.53
Mechanic	4	10.53
Supervisor	3	7.89
Truck Driver	3	7.89
Welder	3	7.89
Electrician	2	5.26
Laborer	2	5.26
Unknown or NEC	2	5.26
Total	38	100

*October 2001 through September 2011

Areas of Concern

- Laborers account for 17.6% of Part 50 reports filed 2001-2011.
 - ✓ Less than 1% of the surveys collected by MSHA Inspectors/Specialists during the last 2 fiscal years (FY 2010 & FY 2011) include surveys on Laborers.
- Mechanics and electricians account for 17.4% of Part 50 reports filed 2001-2011.
 - ✓ Less than 5% of the surveys collected by MSHA Inspectors/Specialists during the last 2 fiscal years (FY 2010 & FY 2011) include surveys on mechanics and electricians.
- Supervisors/foremen/examiners account for 8.4% of Part 50 reports filed 2001-2011.
 - ✓ Less than 2% of the surveys collected by MSHA Inspectors/Specialists during the last 2 fiscal years (FY 2010 & FY 2011) include surveys on mine supervisors.
- Operators' monitoring programs must be tailored to evaluate exposures to all miners to find excessive noise exposures, reduce their effects, and protect miner's hearing.

Noise Citations FY 2010 and FY 2011

Noise Related Citations Issued During Fiscal Years 2010 and 2011

Regulation	Number of Times Cited	Descriptor
62.110(a)	1	Failure to establish adequate monitoring program
62.110(d)	3	Failure to notify miner of exposure
62.110(e)	3	Failure to maintain records of miner notification
62.120	Surface 34 Underground 35	Excessive Action Level*
62.130	1	Excess Noise
62.130(a)	Surface 152 Underground 330	Exceeding the PEL
62.130(b)	2	Failure to enforce hearing conservation
62.130(c)	1	Failure to maintain noise levels below 115 dBA
62.140	1	Failure to enforce dual hearing protection requirements
62.150(a)	3	Failure to establish an adequate hearing conservation program (HCP)
62.150(b)	1	Failure to include hearing protection in HCP
62.160(a)	1	Failure to provide hearing protection equipment
62.160(a)(2)	3	Failure to provide a choice of hearing protection
62.160(b)	2	Failure to enforce the wearing of hearing protection
62.160(c)	1	Failure to enforce the wearing of hearing protection
62.170	2	Failure to offer/provide audiometric testing
62.170(b)	2	Failure to offer continuing audiograms
62.171(c)	3	Failure to maintain/provide audiometric test results
62.174(a)	2	Failure to provide required retraining
62.180(a)	1	Failure to provide required initial training
62.180(b)	2	Failure to maintain a written record of required initial training
Total	586	Twenty-One Miscellaneous Standards

*Greater than 66% of the Action Level Without Being Enrolled In An HCP

Area of Concern

- Incomplete evaluations of Operators' monitoring programs
 - ✓ Excessive exposures, continuing non-compliances and surveys demonstrating excessive action level(s) may indicate the Operators' programs are inadequate
- Incomplete evaluation of the Operators' HCPs
 - ✓ Surveys exceeding the PEL, surveys demonstrating excessive action level(s) and repeat non-compliances may indicate the Operators' HCPs may be inadequate

MSHA Enforcement Initiatives

- More thorough evaluation of operators' monitoring programs including:
 - ✓ Operator's sampling equipment
 - ✓ Operator's sampling results/records
 - ✓ Records retention
- More thorough evaluation of operators' hearing conservation programs

MSHA Enforcement Initiatives (Cont'd)

- Increased frequency of MSHA surveys
- Increased diversity of occupations and miners sampled
- More thorough evaluation of technologically feasible engineering and administrative controls
- Increased utilization of Part 50 accident/injury/illness audits to track and reduce the incidence of disease
- Greater Headquarters oversight and guidance of MSHA's noise sampling efforts

Basics of the Rule

- ***Title 30 C.F.R § 62.110 requires the mine operator to establish an effective system of monitoring that evaluates each miner's noise exposure sufficiently to determine continuing compliance with this part.***

Basics of the Rule

- ***Title 30 C.F.R § 62.110 also requires:***
 - ✓ ***The operator must provide miners and their representatives an opportunity to observe noise exposure monitoring.***
 - ✓ ***Must notify a miner of his/her exposure in writing and within 15 calendar days when that exposure equals or exceeds the Action Level, Permissible Exposure Level or the dual hearing protection level.***
 - ✓ ***The mine operator must maintain a copy of any such notification for the complete duration the level is/was exceeded and for 6 months thereafter.***

Area of Concern

In developing an effective monitoring program mine operators may use any source of noise exposure data available to them including MSHA surveys, manufacturer noise data, medical reports etc... However, collection and evaluation of noise exposure data from these sources was never intended to replace the regular and periodic collection of actual noise exposure to miners employed by the mine operators.
(Source: Q&As and Training Materials Issued With The Rule)

Basics of the Rule

- ***New Action Level (AL) set at 85 dBA***
 - ✓ *(Equal to or Greater Than 50% using 80 dBA criterion)*
 - ✓ *(Equal to or Greater than 66% is a violation if the miner is not enrolled in an HCP)*

- ***Title 30 C.F.R § 62.120 requires:***

“If during any work shift a miner's noise exposure equals or exceeds the action level the mine operator must enroll the miner in a hearing conservation program that complies with § 62.150 of this part.”

Basics of the Rule

- **Permissible Exposure Level (PEL) remains at 90 dBA**
 - ✓ (Equal to or Greater Than 100% using 90 dBA criterion)
 - ✓ (Equal to or Greater than 132% is a violation)

- **Title 30 C.F.R § 62.130 requires:**

- ✓ **The mine operator must assure that no miner is exposed during any work shift to noise that exceeds the permissible exposure level.**

If during any work shift a miner's noise exposure exceeds the permissible exposure level, the mine operator must use all feasible engineering and administrative controls to reduce the miner's noise exposure to the permissible exposure level, and enroll the miner in a hearing conservation program that complies with [§ 62.150](#) of this part.

When a mine operator uses administrative controls to reduce a miner's exposure, the mine operator must post the procedures for such controls on the mine bulletin board and provide a copy to the affected miner.

Basics of the Rule

➤ **Title 30 C.F.R § 62.130 CONTINUES:**

If a miner's noise exposure continues to exceed the permissible exposure level despite the use of all feasible engineering and administrative controls, the mine operator must continue to use the engineering and administrative controls to reduce the miner's noise exposure to as low a level as is feasible.

The mine operator must assure that no miner is exposed at any time to sound levels exceeding 115 dBA, as determined without adjustment for the use of any hearing protector.

Basics of the Rule

➤ ***Dual Hearing Protection Level (DHPL) at 105 dBA***

➤ ***Title 30 C.F.R § 62.140 requires:***

If during any work shift a miner's noise exposure exceeds the dual hearing protection level, the mine operator must, in addition to the actions required for noise exposures that exceed the permissible exposure level, provide and ensure the concurrent use of both an ear plug and an ear muff type hearing protector.

Basics of the Rule

- ***Should a miner's exposure exceed the Action Level, the Permissible Exposure Level or the Dual Hearing Protection Level, Title 30 C.F.R § 62.150 requires:***
- ***The mine operator must establish an effective Hearing Conservation Program that includes:***
 - ✓ ***An adequate system of monitoring of miners exposure***
 - ✓ ***The provision and use of required hearing protectors***
 - ✓ ***Offer of initial (baseline) and periodic audiometric testing***
 - ✓ ***Initial and periodic training***
 - ✓ ***Recordkeeping***

Basics of the Rule

➤ Summary Table:

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.

Basics of the Rule

➤ Title 30 C.F.R § 62.160 requires:

- ✓ *A mine operator must provide hearing protection (and replacements) for miners whose noise exposure equals or exceeds the Action Level at no cost to the miner.*
- ✓ *Allow the miner to choose from at least 2 different types of ear muffs AND two different types of ear plugs.*
- ✓ *Ensure the hearing protection remains in good condition and properly fitted.*
- ✓ *Allow the miner to choose a different protector if medical evidence indicates the need.*
- ✓ *Ensure the miner wears the hearing protection during periods of excessive noise exposure.*
- ✓ *The mine operator must ensure, after satisfying the requirements of paragraph (a) of this section, that a miner wears a hearing protector when the miner's noise exposure is at or above the action level, if:
(1) the miner has incurred a standard threshold shift; or
(2) more than 6 months will pass before the miner can take a baseline audiogram.*

Basics of the Rule

- ***Title 30 C.F.R § 62.170 through § 62.174 (Audiometric Testing) requires:***
 - ✓ ***Mine operators must provide audiometric testing to miners covered under Hearing Conservation Programs at no cost to the miner, including:***
 - ✓ ***Baseline & periodic audiograms***
 - ✓ ***Maintain audiogram results for the period of excessive noise exposure and for 6 months thereafter.***
 - ✓ ***Review all noise controls in place, as well as, personal hearing protection and correct any deficiencies.***

Basics of the Rule

➤ **Title 30 C.F.R § 62.175 (Reporting) requires:**

- ✓ **The mine operator must, within 10 working days of receiving the results of an audiogram, or receiving the results of a follow-up evaluation required under § 62.173 of this part, notify the miner in writing of:**
 - (1) The results and interpretation of the audiometric test, including any finding of a standard threshold shift or reportable hearing loss; and**
 - (2) The need and reasons for any further testing or evaluation, if applicable.**
- ✓ **When evaluation of the audiogram shows that a miner has incurred a reportable hearing loss as defined in this part, the mine operator must report such loss to MSHA as a noise-induced hearing loss in accordance with part 50 of this title, unless a physician or audiologist has determined that the loss is neither work-related nor aggravated by occupational noise exposure.**

Basics of the Rule

- ***Title 30 C.F.R § 62.180 (Training) requires:***
 - ***The mine operator must, within 30 days of a miner's enrollment into a hearing conservation program, provide the miner with training. The mine operator must give training every 12 months thereafter if the miner's noise exposure continues to equal or exceed the action level. Training must include:***
 - ***(1) The effects of noise on hearing;***
 - ***(2) The purpose and value of wearing hearing protectors;***
 - ***(3) The advantages and disadvantages of the hearing protectors to be offered;***

Basics of the Rule

- ***Title 30 C.F.R § 62.180 (Training) continues:***
 - ***(4) The various types of hearing protectors offered by the mine operator and the care, fitting, and use of each type;***
 - (5) The general requirements of this part;***
 - (6) The mine operator's and miner's respective tasks in maintaining mine noise controls; and***
 - (7) The purpose and value of audiometric testing and a summary of the procedures***
 - ***The mine operator must 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.***

Basics of the Rule

➤ ***Title 30 C.F.R § 62.190 (Recordkeeping) requires:***

- The authorized representatives of the Secretaries of Labor and Health and Human Services must have access to all records required under this part. Upon written request, the mine operator must provide, within 15 calendar days of the request, access to records to:
 - (1) The miner, or with the miner's written consent, the miner's designee, for all records that the mine operator must maintain for that individual miner under this part;
 - (2) Any representative of miners designated under part 40 of this title, to training certifications compiled under § 62.180(b) of this part and to any notice of exposure determination under [§ 62.110\(d\)](#) of this part, for the miners whom he or she represents; and
 - (3) Any former miner, for records which indicate his or her own exposure.

Basics of the Rule

➤ ***Title 30 C.F.R § 62.190 (Recordkeeping) continues:***

- When a person with access to records under paragraphs (a)(1), (a)(2), or (a)(3) of this section requests a copy of a record, the mine operator must provide the first copy of such record at no cost to that person, and any additional copies requested by that person at reasonable cost.
- Transfer of records.
 - (1) The mine operator must transfer all records required to be maintained by this part, or a copy thereof, to a successor mine operator who must maintain the records for the time period required by this part.
 - (2) The successor mine operator must use the baseline audiogram, or revised baseline audiogram, as appropriate, obtained by the original mine operator to determine the existence of a standard threshold shift or reportable hearing loss.

Questions/Comments & Contact Information

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