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# MSHA Noise Emphasis Program Inspector Training

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Reginald J. Richards, DrPH, CIH  
Chief, Division of Health  
Metal/Nonmetal Mine Safety and Health

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# Topics

- Noise trends
  - Hearing loss
  - Exposures
- Emphasis Program
- Requirements under Part 62

# Noise Trends

- Equipment/Job
  - Jet piercing channel operator
  - Continuous miner operator
  - Drill operator, jackleg/stoper
  - Drill operator, rotary and rotary air
  - Stone polisher/cutter
  - Bulldozer operator
  - Laborer, bullgang
  - Kiln/dryer operator
- Noise exposure potential across all commodities and mine type (surface vs. underground)

# Emphasis Program

- Conduct comprehensive noise inspections at MNM mines
- Work with operators and stakeholders to reduce noise exposures below PEL through implementation of feasible controls
- Assist operator with compliance
  - Understanding the requirements
  - Hearing conservation
  - Audiograms
  - Reporting requirements

# Part 62, Occupational Noise Exposure

- Part 62.110, Noise exposure assessment
  - Establish a system of monitoring
  - Determine dose
  - Observation of monitoring
  - Miner notification
- Part 62.120, Action level (AL)
  - 85 dBa ( $\geq 66\%$  dose)
  - Enroll in hearing conservation program when action level is exceeded
- Part 62.130, Permissible exposure limit (PEL)
  - 90 dBa ( $\geq 132\%$  dose)
  - Implement all feasible engineering and administrative controls
  - Maximum exposure of 115 dBA
- Part 62.140, Dual hearing protection
  - Requires dual hearing protection

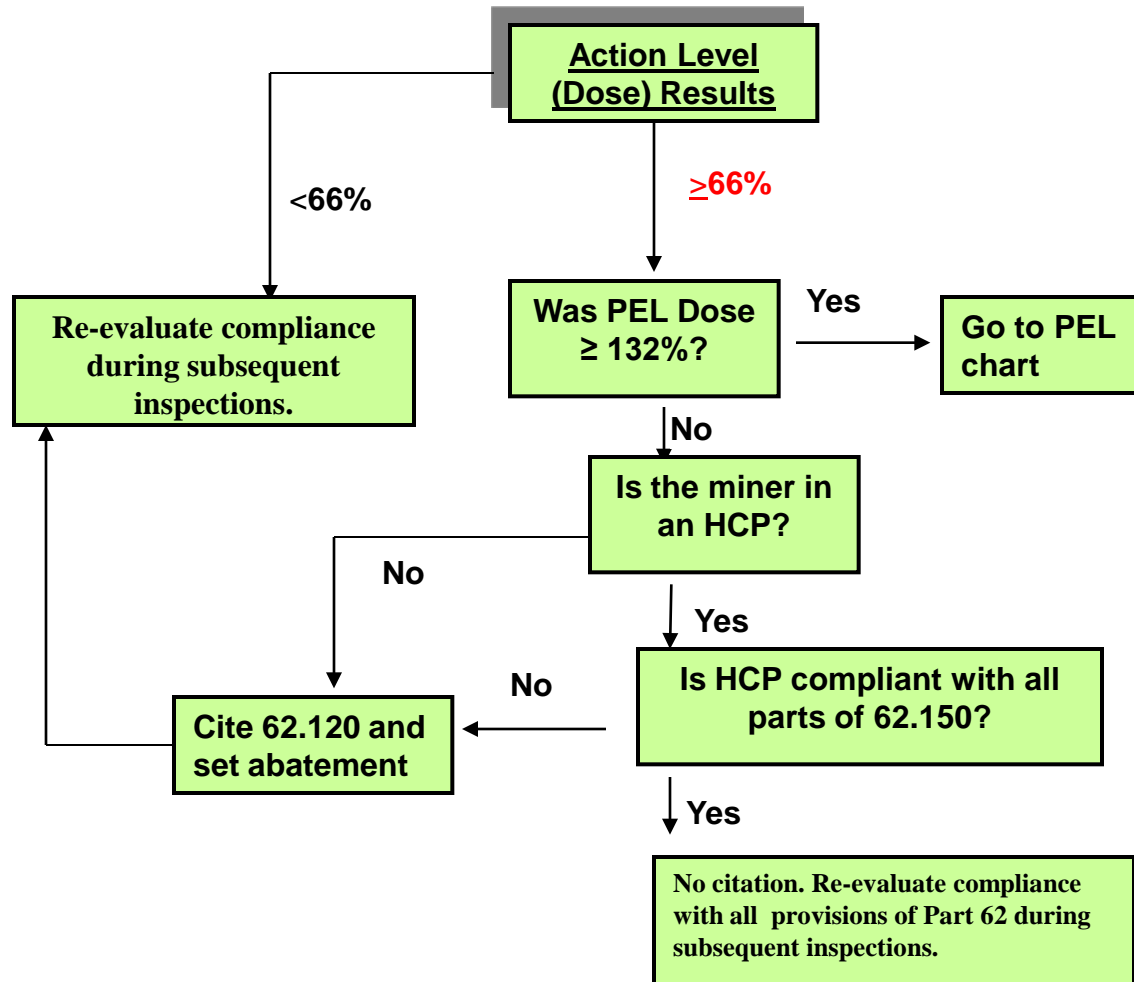
# Part 62, Occupational Noise Exposure

- Part 62.150, Hearing conservation
  - System of monitoring
  - Provision and use of hearing protectors
  - Audiometric testing
  - Training
  - Record keeping
- Part 62.160, Hearing protectors
  - Miners trained and provided hearing protectors
  - Allow miner to choose
  - Ensure good condition and fit
  - Provided at no cost to miner
  - Worn if exposure is over the PEL as supplement to controls
  - Worn if exposure is over the AL if threshold shift or 6 months til baseline audiogram

# Part 62, Occupational Noise Exposure

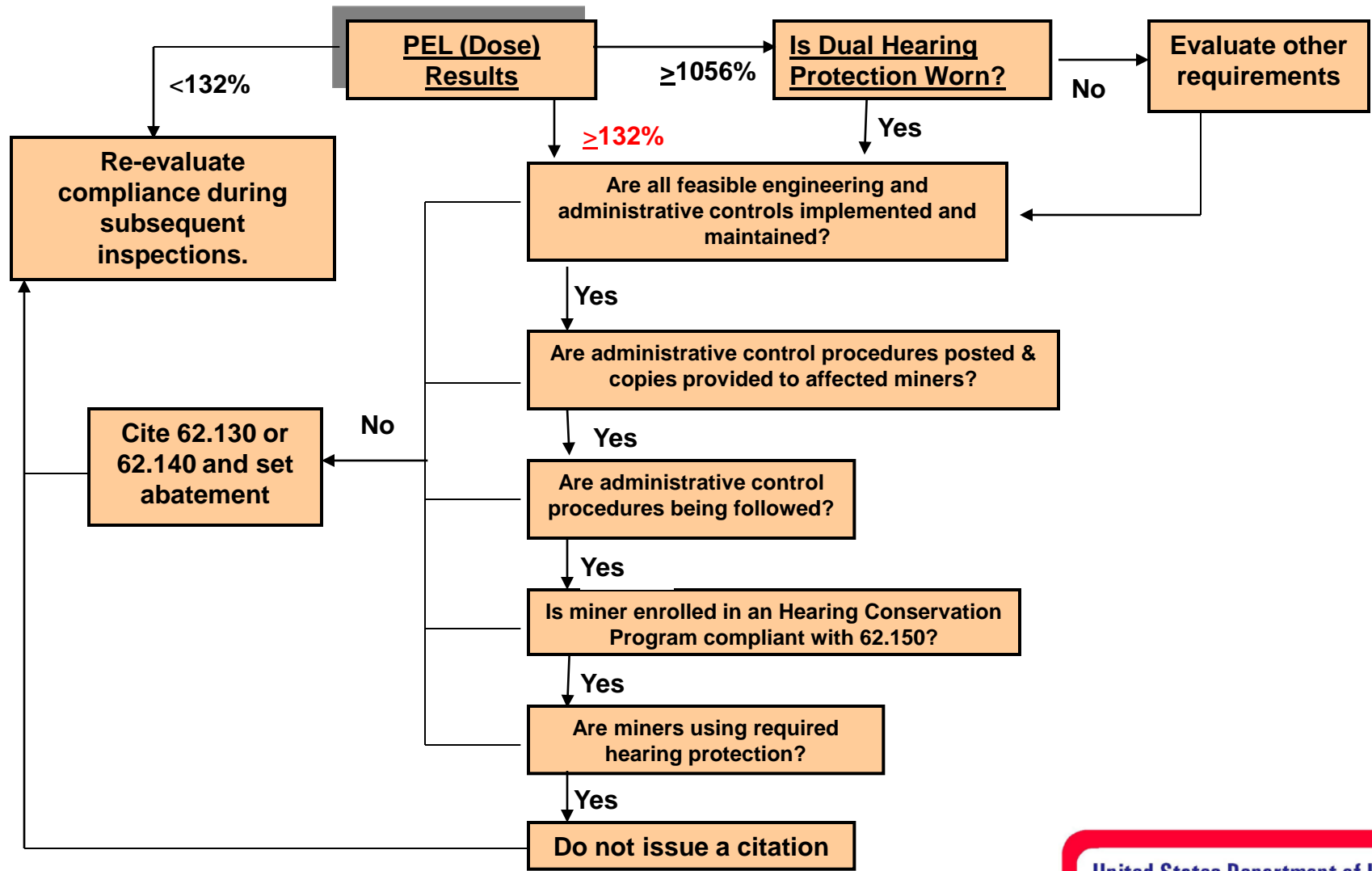
- Part 62.170-175, Audiometric testing
  - Test procedures
  - Evaluation
  - Follow-up
  - Miner notification and MSHA reporting
- Part 62.180, Training
  - Effects of noise on hearing
  - Purpose and value of hearing protectors
  - Types, care, fitting, and use of hearing protectors offered
  - Requirements under this standard
  - Tasks in maintaining controls
  - Purpose, value, procedures of audiometric testing
- Part 62.190, Records

# Compliance with Action Level (85 dBa)





# Compliance with the PEL (90 dBa)



# P-Action Code

- Exposures entered into MSHA database and code assigned to indicate disposition
  - C-action code = citation
  - T-action code = Terminated
  - V-action code = Vacated
  - P-action code = no citation issued because operator implemented all feasible engineering and administrative controls
- Discontinue the practice of issuing memorandums to operators indicating the P-action code was used

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# Hearing Conservation

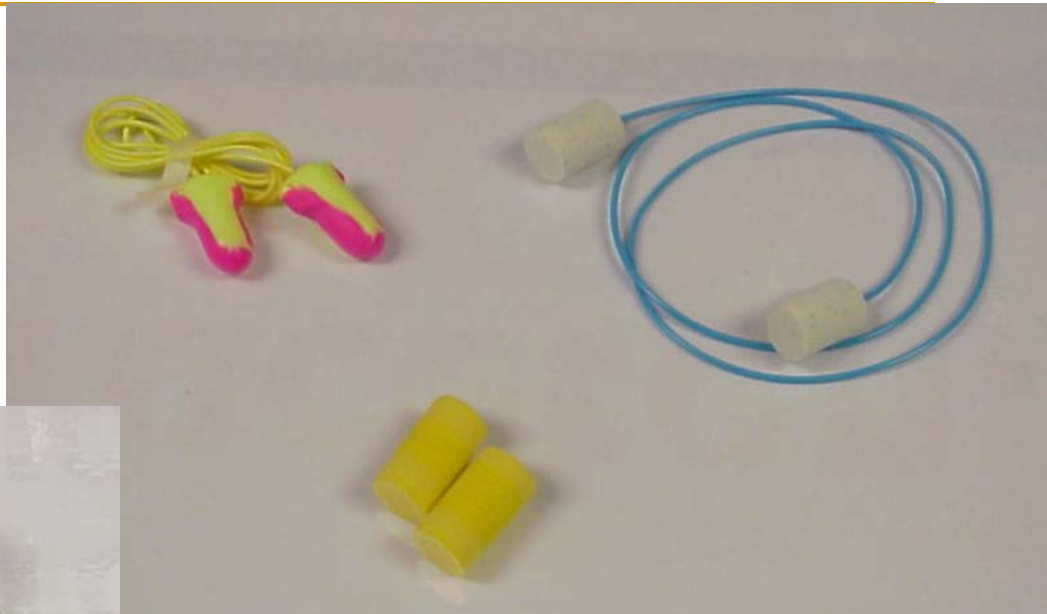
- The following are required for compliant hearing conservation program



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# System of Monitoring

- Performance based requirement
- Notify miners of their exposure if AL or PEL is exceeded
- Can use representative sampling



# Hearing Protectors

- Action Level ( $TWA_8 \geq 87$  dBA or  $D \geq 66\%$ )
  - Operator must provide two plug types & two muff types of hearing protection
  - It is the miners option to wear hearing protection, UNLESS
    - The miner has incurred a Standard Threshold Shift (STS); or
    - More than 6 months will pass before the miner can take a baseline audiogram
  
- Permissible Exposure Level ( $TWA_8 > 92$  dBA or  $D > 132\%$ )
  - Miner must wear one type of operator-provided hearing protection
  
- Dual Hearing Protection Level ( $TWA_8 > 107$  dBA or  $D \geq 1056\%$ )
  - Miner must wear both earplug and earmuff type operator-provided hearing protection

# Audiometric Testing

- The operator must offer miners the opportunity to take an annual audiogram
- The miner must avoid high levels of noise for at least 14 hours prior to taking a baseline audiogram;
- Hearing protectors may be used as a substitute for this quiet period

# Reporting of Hearing Loss

- **REPORTABLE HEARING LOSS** - A change in hearing sensitivity for the worse, relative to the miner's baseline audiogram, or the miner's revised baseline audiogram where one has been established in accordance with 62.170(c) (2), of an average of 25 dB or more at 2000, 3000, and 4000 Hz in either ear.
- **STANDARD THRESHOLD SHIFT** - A change in hearing sensitivity for the worse relative to the miner's baseline audiogram, or relative to the miner's most recent revised baseline audiogram where one has been established, of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear.



# Training

- Effects of noise on hearing
- Purpose and value of engineering controls & wearing hearing protection
- Pros and Cons of hearing protection offered
- Care, fit, and use of available hearing protection
- General requirements of CFR 30 Part 62
- Maintaining noise controls
- Purpose, value, and procedures of audiometric testing

# Records

- The mine operator is required to keep accurate records of the following...
  - Training certifications
  - Notice of exposure
  - Audiogram results
  - Reportable hearing loss
- It is recommended that the miner keep copies of any information provided by the mine operator for their own record

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# Completing Noise Inspections

- Noise inspection takes longer than other inspections
- May require the assistance of Tech Support
- Ask for assistance if needed

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Questions?

Comments?

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