Cut Trees….Not Hearing

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Logging Equipment Operator Program

NORTH CAROLINA AGROMEDICINE INSTITUTE

Partners for Health and Safety In Agriculture, Forestry, and Fisheries

East Carolina University ◆ NC State University ◆ North Carolina A & T State University

Noise levels or the intensity of sound is measured in:

a. Amps

b. Hertz

c. Kilograms

d. Decibels

Noise levels of logging equipment can be expected to be in the following ranges at full power:

a. 80-95 decibels

b. 90—105 decibels

c. 100-110 decibels

d. 105-120 decibels

Hearing Protection is required by OSHA when noise levels are above:

a. 75 decibels

b. 85 decibels

c. 95 decibels

d. 105 decibels

In addition to hearing protection, OSHA requires employers to:

a. Measure sound levels
b. Provide annual audiometric (hearing) testing and evaluation
c. Provide hearing protection
d. Maintain records
e. Only b and c
f. Only a, c, and d
g. All of the above

True or False?

Hearing loss:

a. Is preventable
b. Is reversible
c. Can happen gradually
d. Can happen suddenly
e. Is painful

To Protect Hearing on the Job, OSHA requires:

- Sound level measurements
- Audiometric (hearing) testing and evaluation
- Hearing protection
- Education
- Recordkeeping

Noise Levels

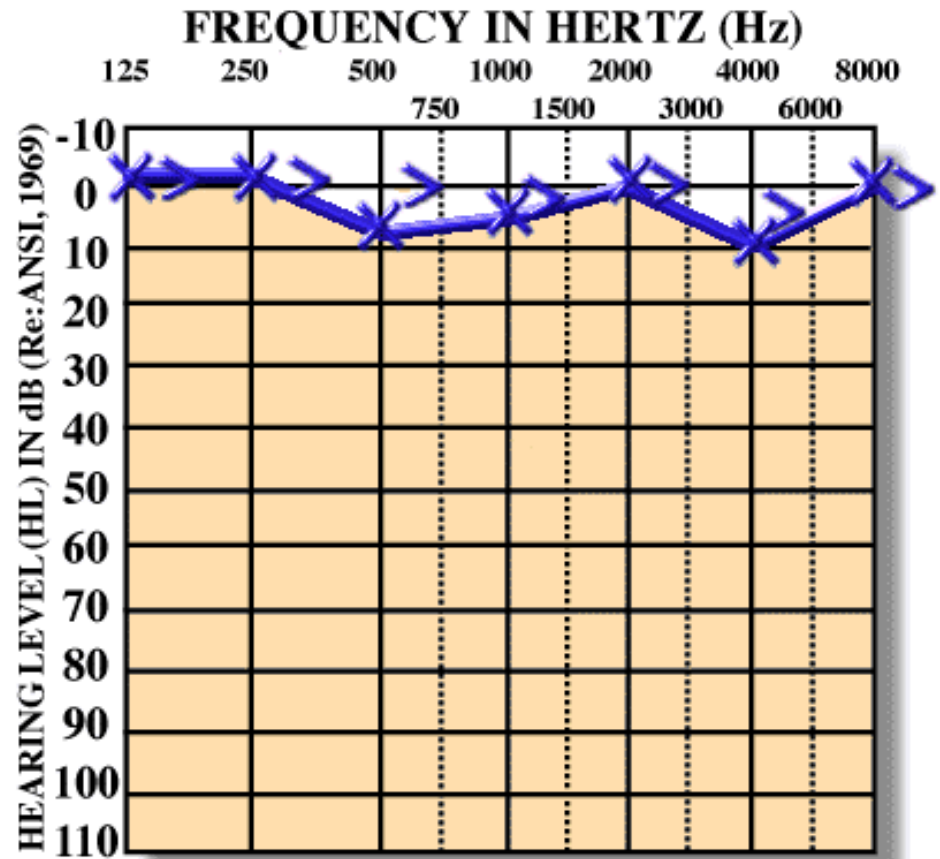- Measured in decibels using a sound level meter or dosimeter

Noise levels expected at full power

- Chain saw (105-110db)
- Skidder (100-105db)
- Loader (100-105db)
- Chipper (100-110db)
- Grinder (100-110db)
- Feller buncher (100-110db)

Audiometric (hearing) Test

- Conducted annually
- 1st test is baseline or hearing threshold at different frequencies
- Annual test results compared to baseline to determine changes in hearing
- Recommendation by professional:
  – Change in hearing protection
  – Re-training on proper fit of hearing protection
  – Medical referral

Hearing protection is required for noise levels over 85 decibels

- Moldable inserts (foam or plastic ear plugs)
- Ear muffs attached to hardhats
- Ear muffs attached to head band
- Each have an NRR

- The Noise Reduction Rating (NRR) is a single number indicator developed by the Environmental Protection Agency to assess the adequacy of noise attenuation or change of particular hearing-protective devices (ex. NRR 29)

- NRRs are based on data under laboratory conditions - so a correction factor (7 dB) must be applied (ex. NRR 29-7= 22 decibel change)

Types of Hearing Protection

The best hearing protection device is the one that the individual will wear correctly, consistently and comfortably!

Wear It Right

Education & Recordkeeping

Safety Meeting Record

Date:_____

Location:_____

Topic: _____

Presented by: _____

Brief outline of discussion:_____

Employees in attendance (signatures): _____

NC Department of Labor requires:

- hearing conservation as a part of annual safety training

- Written records that prove audiometric testing and training was conducted

Do you have………

- Difficulty understanding women and children (higher pitch sounds)

- Difficulty understanding speech especially in the higher tones

- Difficulty hearing in a room with noise interferences e.g. people talking, noisy restaurant, etc.

- Ringing in ears (tinnitus)

…….then you may have hearing loss!

So Why Care?

Hearing loss:

- is preventable

- can't be reversed

- can happen gradually

- can happen suddenly

- is usually painless – you don't know it's gone until it's gone!

HEARING PROTECTION MUST BE WORN

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