

Construction News Sense



NOISE EXPOSURE: AN ASSAULT ON THE EARS Part 1 of 3

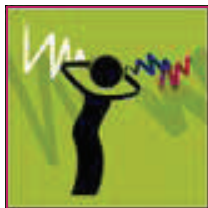
Many construction workers complain that they can't hear as well as they used to, and statistics back them up. Construction workers are exposed to noises loud enough to cause permanent noise-induced hearing loss. Some studies have shown that a 25-year-old carpenter can have the hearing capability of a 50-year-old man but this can be prevented.

What is noise?

Noise is unwanted sound. Noise levels are measured on a decibel scale (dBA), which matches the ear's sensitivity to sound. A whisper is about 30 dBA, normal conversation is 60–70 dBA, and power tools are often between 90–110 dBA (more next month). If two people at arm's length must raise their voices to be heard, the noise level is most likely above 85 dBA.

What happens if you are exposed to too much noise?

Noise exposures that are loud enough and last long enough can damage nerves in the inner ear, causing permanent and irreversible hearing loss. This damage can result from repeated exposure to levels above 85 dBA (such as years of working around construction noise without hearing protection), or from as little as one exposure above 140 dBA. Workers who have suffered hearing loss often become socially isolated because they can't communicate



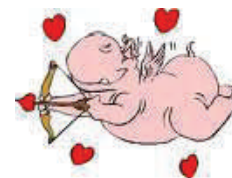
easily with others. They also may not be able to hear warning signals, which can lead to accidents and injuries. Measurements show that most construction tasks and tools generate noise levels that require use of hearing protection. However, national studies indicate construction workers rarely or never use hearing protection. This gap in hearing protection use puts construction workers at risk for hearing loss.

What standards and regulations apply?

There are several guidelines and standards that apply nationally to construction-related noise exposure. Construction Specification #01065 outlines requirements that apply to Sandia construction. The primary driver for evaluating construction worker noise exposure is the American Conference of Governmental Industrial Hygienist (ACGIH) Threshold Limit Values Guidelines (TLV) for Noise. The following is a summary of these limits:

- The TLV is 85 dBA. Based on the 3 dBA exchange rate, allowable TLVs for noise range from 80 dBA for a 24-hour period to 139 dBA for 0.11 seconds.
- No unprotected exposure to continuous, intermittent, or impact noise in excess of a peak sound level of 140 dB is allowed.
- A hearing conservation program is required when workers are exposed to noise above the TLV levels.

See page 2 for information about the newly revised BBS blue cards.



The Occupational Safety and Health Administration (OSHA) standard for noise exposure (29 CFR 1926.52) has a less restrictive exposure level of 90 dBA. It also requires an effective hearing conservation program when workers are exposed to noise above the permissible exposure level.

Next month, we'll take a look at typical sources of construction noise exposure and noise levels of common construction tools.



Diane Morrell, Org. 04127

BBS CARD REVISED

The BBS “blue card”, as we have all become familiar with, had been in effect for almost a year and a half without any changes. However, after an evaluation of the data from the cards, the BBS Construction Steering Committee made the determination that if some of the behaviors had consistently received a high percentage of Safe ratings, they needed to be removed and replaced with new behaviors that can have a greater impact on the safety of the workforce at SNL. Based on the review of the data, the following new behaviors were added to the cards:

- Alignment
- Get Help
- Housekeeping
- PPE Fall/Anchor Point

worker asking a co-worker for assistance when carrying a large box. An example of a Concern for Get Help is observing a worker carrying a large box that he cannot get a good grip on but not asking for assistance.

Housekeeping

This behavior ensures that the worksite is free of clutter and properly maintained. This helps to prevent possible accidents from occurring from debris and trash that doesn't need to be around the jobsite. An example of a Safe behavior for Housekeeping is observing a worker actively keeping the jobsite clean as work is performed. An example of a Concern for Housekeeping is observing a worker creating debris for a task being performed and not cleaning it up after he is finished.

PPE-Fall/Anchor Point

This behavior ensures that a worker is wearing PPE for fall protection. In addition, this behavior ensures that a worker is checking all anchor points prior to hooking up to them. *Please note that you are not evaluating the worker from “Compliance with OSHA standpoint”; you are reviewing it from a behavioral standpoint to ensure that the worker remembers to wear fall protection and that the worker is not assuming that the PPE is safe without checking.* Also note that this was the number one OSHA injury for 2006. An example of a Safe behavior for PPE-Fall/Anchor Point is observing a worker check all anchor points before hook-

BBS Safety Observation Card - Construction Contractors

Behavior	Safe	Concern	“What” concerned me?	“Why” – Workers response to concern*
Pre-Job Inspection				" "
Proper Tools for Job				" "
Alignment				" "
Eyes on Path/Task				" "
Footing				" "
Get Help				" "
Housekeeping				" "
PPE Fall/Anchor Point				" "
Other behavior				" "
*Keep asking why of worker until valid why reached				

Alignment

This behavior ensures that a worker is not positioning his body in an awkward position, causing a possible strain of a muscle. This behavior is applicable whenever a worker is lifting an object or bending over. An example of a Safe behavior for Alignment is observing a worker bending his knees while lifting up a box. An example of a Concern for Alignment is observing a worker standing on a ladder and reaching down to lift a board up to the roof while bending at the back.

Get Help

This behavior ensures that a worker is getting the necessary help for the task at hand and preventing an accident instead of trying to do too much alone. This behavior is applicable whenever a worker is carrying an object, lifting an object, or performing any task that requires the assistance of another worker to minimize the chance of injury. An example of a Safe behavior for Get Help is observing a

ing up to them. An example of a Concern for PPE-Fall/Anchor Point is observing a worker hook up to all anchor points without checking them.

The following behaviors remain on the card:

- Pre-Job inspection
- Proper tools for job
- Eyes on path/task
- Footing

If you have any questions regarding these changes, feel free to contact any of the BBS Construction Steering Committee Members.

As always, thank you for your continued support of the BBS Construction Program. It is making a difference in the overall safety at SNL.



Consuelo Silva, Org. 04824