



TOO MUCH NOISE can affect your hearing. It can also cause other health problems.

The three main areas of concern are:

- Temporary Hearing Loss
- Permanent Hearing Loss
- Other Effects

Temporary Hearing Loss can last for minutes, hours or days. Fortunately, with this type of hearing loss, normal hearing will come back. Temporary Hearing Loss should, however, be a warning sign that the work environment may be too noisy.



Permanent Hearing Loss is usually a gradual process that occurs from being in a noisy environment over a long period of time. Unfortunately, this type of hearing loss is usually not reversible.

Other Effects of overexposure to noise include fatigue, nervousness and increased blood pressure. These symptoms can lead to more serious problems like heart disease. Also, working in a noisy environment can be a safety hazard. If it is too noisy to hear warnings from co-workers, it is more likely that injuries can occur.

■ HOW NOISY IS IT?

There are a number of instruments that can be used to measure noise in the workplace. Sound

NOISE LEVELS	
Noise Source	Noise level in decibels
Jet Engine	140
Cutting machine; hardened tools	120
Pneumatic drill	100
Shouting—to be heard a few feet away	70–90
Normal conversation	40–60
Soft whisper	10 – 30

level meters and noise dosimeters are two devices that can be used to find out how much noise is in the workplace. These tools are useful if you want to figure out exactly what type of hearing protection (earplugs or ear muffs) to use. They measure noise in *decibel level (dB)*. On the decibel scale, each time the number of decibels goes up by three, the level of noise is doubled. For example, if a work environment goes from 90 dBs to 93 dBs, it is *twice as loud*.

PESH regulations are based on decibel level, so you may see someone taking measurements in your workplace to see if the level of noise is above the legal limit.

As a practical matter, common sense can tell you if a place is too noisy. Some clues are:

- If it is too noisy to hear co-workers who are nearby
- You have to turn up the volume on the TV or iPod
- When you get in your car in the morning, the radio is cranked up from the drive home the day before

- You get a ringing in your ears after working in a noisy area
- Your friends and family notice that you have trouble hearing

NOISE EXPOSURE LIMITS BY PESH REGULATION 1910.95	
Hours of Exposure	Sound Level dB(A)-decibels
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
Fifteen minutes or less	115

PREVENTION

Substitution: (Eliminate the problem) as is true for other workplace hazards, the best solution for a noisy work environment is to reduce the noise. This can be done by replacing noisy equipment with equipment that is quieter.

Engineering Controls: (Addresses the problem at its source) enclose, isolate or muffle noisy machines. Sometimes something as simple as a vibration absorbent mat on the floor can help reduce noise. In other cases, building a sound proof enclosure for a noisy machine will work to reduce noise.


Work Practices: (Reduce exposure to the problem) rotate jobs so that workers are in the noisy area for less time.

Move workers who do not need to be in the area away from the noise.

Keep equipment in good working order to reduce noise.

Personal Protective Equipment: (Last resort) Under the PESH law, giving workers Personal Protective Equipment (PPE) like ear muffs or ear plugs should be a last resort after the other measures have failed.

The type of ear muffs and ear plugs should be selected based on how noisy the environment is. Ear plugs fit inside the person’s ear and should only be used in healthy ears. (If you have an ear infection, do not insert the ear plugs into your ear.) Ear muffs are worn over the whole ear. They should have a good seal to be effective



PESH

WHAT THE LAW REQUIRES

The PESH noise standard is 1910.95. It limits noise to 90 dB over an eight-hour day. That means that you can be in a very noisy work environment for a shorter period of time, but the law may not have been broken. Bear in mind that “legal” is not the same thing as safe. Hearing loss can occur at levels lower than the law allows.

