# Noise Safety

#### Safety Meeting Packet

## Protect Your Workforce



Noise, a by-product of many industrial processes, is unwanted sound that is unpleasant, loud, or disruptive to hearing. When workers are exposed to high levels of noise, they may sustain hearing loss. The intensity of the noise and the duration of the exposure impacts the extent of the damage. Hearing loss is most likely to occur when there is continuous exposure to a loud noise at or above 85 decibels. Providing protection,

training, and hearing testing to employees working in areas with equipment that produce high levels of noise can help to minimize the risk of hearing loss.

#### Responsibility

Both management and employees have a responsibility to aid in preventing hearing loss.

#### Management Responsibilities

- Use engineering and administrative controls to limit employee exposure. Engineering controls are physical changes to the work area or process that minimize exposure to hazards. Administrative controls are nonphysical changes to a work task or schedule to limit exposure.
- Provide adequate hearing protection for employees
- Post signs and warnings in all high noise areas
- Conduct noise surveys
- Conduct hearing tests
- Conduct hearing conservation training

#### Employee Responsibilities

- Use the provided hearing protection in high noise areas
- Request new hearing protection when needed
- Exercise proper care of issued hearing protection to ensure equipment is maintained

#### Noise Monitoring

Employers should monitor the workplace for noise exposure periodically with a sound level meter or dosimeter. Departments



must also notify management when there is a possible need for monitoring.

Noise levels must be reassessed to ensure that they are within the guidelines when there is a change in equipment, process, or controls that affect noise levels.

#### Permissible Noise Exposure

The Occupational Safety and Health Administration (OSHA) requires implementing feasible administrative or engineering controls when sound exposure exceeds the following:

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Duration Per Day	Sound Level			
(Hours)	dBA in Slow Response			
8	90			
6	92			
4	95			
3	97			
2	100			
1.5	102			
1	105			
.5	110			
.25 or less	115			

#### **Hearing Protection**

According to OSHA Occupational Noise Exposure Standard (29 CFR 1910.95(i)), employers must make hearing protectors available to all employees who are exposed to an 8-hour time weighted average of 85 dB or greater, without cost to the employees.

Hearing protection must be replaced as needed.



- Workers can choose from among at least two different types of suitable hearing protection.
- Personal headsets are not approved for hearing protection.
- Ensure that the hearing protector has an appropriate initial fit.
- Signage is required in areas that are designated as high noise areas and when hearing protection is necessary.
- Clean earplugs and earmuffs periodically and store in a clean area, or replace after use.
- Wash hands before placing earplugs in the ear to avoid contaminants being placed in the ear.



Any employee who is or may be working while exposed to high noise will be required to attend training covering the proper usage and handling of hearing protection. Training components include, but are not limited to the following topics:

#### **Hearing Loss**

Exposure to high levels of noise can cause permanent hearing loss. Surgery or hearing aids may improve symptoms, but neither can correct this type of permanent hearing loss. Additionally, loud noises can reduce work productivity and make it difficult to communicate to other employees or hear warning signals. This can significantly contribute to workplace accidents and injuries.

Signs of permanent hearing loss:

- Difficulty hearing people in groups, meetings, or if there is background noise
- People sound as if they are mumbling when speaking
- Need to ask people to repeat what they say
- Trouble understanding others on the telephone
- Ringing or other noises in one or both ears
- Trouble hearing ringing noises such as back-up alarms or the ringing of a cell phone

#### What Causes Hearing Loss?

- One-time exposure to a sudden powerful noise (an explosion)
- Sustained noise over an 8-hour period (lawn mower)
- Repeated exposure to high noise levels and periodic exposure to very high noise levels (nail gun)
- Hearing loss is often the result of exposure to moderate levels of noise over time



Sound intensity is measured in decibels. Decibels are measured on a logarithmic scale (small changes in decibels mean big changes in noise intensity). An increase in 3 dBA doubles the amount of noise, reducing the recommended exposure time by 50%. Hearing can be damaged by:

- Regular 8-hour exposure to 85 dBA
- Regular 1-hour exposure to 100 dBA

When a sound level meter is not available, use the 2-3-foot rule. Stand an arm's length away (2-3 feet) from a coworker, if the coworker must raise his/her voice to be heard, assume that the sound level is 85 dBA or higher.

#### How to Limit Noise Exposure

- Use hearing protection or quieter equipment or tools
- Maintain and retrofit older equipment to reduce noise
- Limit the hours worked in hazardous noise areas
- Identify equipment and work areas where signs are needed
- Move equipment further away or face it in another direction
- If possible, move to a quieter area
- Block the noise by using temporary barriers

#### **Hearing Protective Devices**

According to OSHA 29 CFR 1910.95, employers are responsible for selecting, fitting, and maintaining hearing protective devices and must provide them to employees at no cost.

#### **Hearing Protective Devices**

- Roll Down Foam: Pro Fits many people, convenient, disposable. Con - Must be inserted properly.
- Reusable ear plugs: Pro Easy to carry, reusable, washable. Con - Don't fit everyone, must keep clean.
- Custom molded ear plugs: Pro Comfortable, long-term wear. Con - Must be made by licensed provider.
- Canal caps: Pro Can be worn a variety of ways, easy to put on and remove. Con - Not comfortable, not as effective.
- Earmuffs: Pro Easy to use, fit most people. Con Hot and heavy, may interfere with other gear.

For additional information, please review OSHA Occupational Noise Exposure Standard 29 CFR 1910.95 and Safety and Health Regulations for Construction 29 CFR 1926.52 and 29 CFR 1926.101.





### Noise Safety Safety Meeting Attendance Acknowledgement

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#### Disclaimer:

The information provided above was assembled using multiple resources. However, these materials do not contain ALL the information available regarding the required safety standards under local, provincial, state, or federal law for your industry.