Railroad Workers Killed By Passing Train

INCIDENT

Two experienced railroad workers who were performing their usual duties during the course of the day were killed by a passenger train. The police said the two workers had not been aware of a passenger train approaching them. The police also said that the two workers were “wearing ear defenders” or in common parlance, devices hearing protection devices (HPD’s).

A third person was treated for shock at the scene but was injured.

NEED TO KNOW

A tragic accident but clearly preventable accident occurred when two rail workers were killed. The workers were wearing P.P.E equipment. Were they wearing the appropriate (P.P.E) combined with the requisite training and education for the specific tasks of the workers?

BUSINESS / REGULATIONS

The British Transport Police said the two railway workers had been wearing ear defenders and had not been aware of the passenger train approaching.

Supt Andy Morgan of the British Transport Police said: “Following a number of urgent inquiries into this tragic incident, it has been established that the three people were railway workers who were working on the lines at the time.

“The initial stages of the investigation suggest that the two men who died had been wearing ear defenders at the time and, tragically, could not hear the passenger train approaching.”

Police said officers would continue to investigate and that the men’s families had been informed.

The transport secretary, said there would be an investigation into how the incident occurred.

Network Rail’s Wales route director, Bill Kelly, said it was “shocked and distressed” by the “dreadful accident” and was fully cooperating with investigators.

“Our thoughts are with the families of our colleagues and our members of staff who will be affected by this tragic loss, and we will provide all the support we can,” he said.

Union leaders called for a full investigation into the deaths. Manuel Cortes, the TSSA general secretary, said: “It’s too early to speculate about what has happened here, but clearly something has gone badly wrong. There must now be a full investigation because it is simply not acceptable that in the 21st century, people go out to work and end up losing their lives.

“Our Network Rail members, together with everyone else at the company, do so much to keep our railways running smoothly. They must be able to do this in a safe environment.

“Safety on our railways is paramount and sadly, as today’s tragic events show, it can never be taken for granted.”

Mick Cash, the general secretary of the RMT union, said: “This is shocking news. RMT is attempting to establish the full facts, but our immediate reaction is that this is an appalling tragedy and that no one working on the railway should be placed in the situation that has resulted in the deaths that have been reported.

“As well as demanding answers from Network Rail and a suspension of all similar works until the facts are established, the union will be supporting our members and their families at this time. Our thoughts are with those involved in this incident and their loved ones.”

A man who said he worked at the nearby Tata steelworks said: “I didn’t see a great deal. By the time I got close paramedics were giving one of the workers CPR, but he sadly passed away. The other worker had already passed away.”

The incident resulted in cancelled trains, with replacement buses being put on for rail passengers.

STATISTICS

THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH) HAS ILLUMINATED REVEALING AND DISTURBING FACTS ABOUT OCCUPATIONAL HEARING LOSS (OHL).

Problems:

- In the United States, hearing loss is the **third-most common**chronic physical condition among adults after hypertension and arthritis.
- About**12%** of the U.S. working population has hearing difficulty.
- About **24%**of the hearing difficulty among U.S. workers is caused by occupational exposures.
- About**8%** of the U.S. working population has tinnitus (‘ringing in the ears’) and **4%** has both hearing difficulty and tinnitus.

Causes of Occupational Hearing Loss (OHL):

- OHL can occur when workers are exposed to loud noise or ototoxic chemicals.
- **Noise**is considered loud (hazardous) when it reaches 85 decibels or higher, or if a person has to raise his/her voice to speak with someone 3 feet away (arm’s length).
- **Ototoxic chemicals**can cause OHL, make the ear more susceptible to the damaging effects of hazardous noise, or both. For example, a person taking certain ototoxic pharmaceuticals may lose hearing, become more susceptible to noise, or both. Ototoxic chemicals (and examples) include:
    - solvents (styrene, trichloroethylene, toluene)
    - metals and compounds (mercury compounds, lead, organic tin compounds)
    - asphyxiants (carbon monoxide, hydrogen cyanide)

    - nitriles (3-Butenenitrile, cis-2-pentenenitrile, acrylonitrile)
    - pharmaceuticals (certain antineoplastic agents)

Exposed Workers:

- About **22 million workers**are exposed to hazardous noise each year.
- About **10 million workers**are exposed to solvents and an **unknown number** are exposed to other ototoxicants.

PREVENTION

Most industrial and plant operations in our modern industrial society emit and produce noise, some more than others. All this noise has an impact on the hearing of its workers.

Noise Exposure Hazards

Over time, exposure to noise can cause the following problems:

- Noise-induced hearing loss (NIHL)
- Tinnitus (ringing in the ears)
- High blood pressure
- Fatigue

Noise-induced hearing loss is the most common occupational disease suffered by worker. It often happens gradually, so workers may not realize that loud noise from their job is damaging their hearing. By the time they do realize it, it’s too late—the damage is permanent and can’t be reversed.

Hearing Loss

Any reduction in the normal ability to hear is referred to as a loss of hearing. A hearing loss can be either temporary or permanent.

Other prime causes of permanent hearing loss are age, traumatic injuries (such as from explosions or gunfire), and infection. Noise, however, is the major identifiable cause of hearing loss.

Hearing Protection Devices

Hearing protection devices (HPDs) should only be provided when engineering and administrative controls to reduce noise at the source or along the path cannot be implemented or while such controls are being put in place. HPDs are barriers that reduce the amount of noise reaching the sensitive inner ear. Fit, comfort, and sound reduction or “attenuation” are important considerations in choosing HPDs. The types of HPDs used most commonly are earplugs or earmuffs. Earplugs attenuate noise by plugging the ear canal. Earmuffs cover the external part of the ear, providing an “acoustical seal”.

Effectiveness

The effectiveness of HPDs depend on the amount of time they are worn. What is not obvious to most wearers is that the effectiveness of HPDs can be reduced by as much as 95% or more if the protectors are not worn for as little as three or four minutes in noisy environments. It is therefore important to wear HPDs during the entire period of exposure in order to achieve the maximum protection available.

Comfort

Comfort is an important consideration in selection. An HPD that isn't comfortable will simply not be worn or will be worn improperly. With earplugs, several factors affect comfort. Since some plugs are relatively non-porous, they can often create a pressure buildup within the ear and cause discomfort. Dirty plugs may irritate the ear canal. Because of the shape of an individual's ear canals, certain plugs may not fit properly. Earmuffs should be made of materials that do not absorb sweat and that are easy to maintain and clean. The earmuff cup should be adjustable to conform to various head sizes and shapes. Headband tension and earcup pressure should be adjusted so that they are effective without being uncomfortable. Weight may also be a factor.

Work Environment/Procedures

HPD selection is sometimes dictated by the constraints of the work area or work procedures. For example, large volume earmuffs may not be practical in confined work situations with little head room or clearance. In that case, flat-cup muffs or earplugs may be more practical. Where work is necessary near electrical hazards, it may be desirable to use non-conductive suspension type muffs. The choice of protector may also be affected by the nature of work, as in welding where certain types of earmuffs may interfere with the welder's helmet. The attenuation of the muff-type hearing protector may be considerably reduced when worn with spectacle-type safety glasses. (The head configuration of the wearer and the type of glasses worn will determine the reduction in attenuation.)

Where safety glasses must be worn, cable-type temples should be used in order to allow the smallest possible opening between the seal of the protector and the head. Otherwise earplugs should be worn, provided they are adequate.

Consideration should be given to hearing protectors that can be attached to hard hats where exposures to noise may be high but intermittent and where hard hats must be worn at all times. Periodic adjustments may be necessary because movement of the hard hat may break the seal of the HPD.

Consideration should also be given to work involving oils, grease, and other products that may soil hands. Ear infections may occur when earplugs are inserted by dirty hands.

Overprotection

Workers wearing HPDs that provide too much attenuation may feel isolated from their surroundings. Sounds may be heard as muffled. Speech or warning sounds may be unrecognizable. Overprotection can lead workers to resist wearing HPDs. Protectors should be chosen to provide sufficient, but not excessive, attenuation.

Where communication is critical and hearing protection is required, communication headsets can be considered. These devices provide protection against harmful levels of noise, yet allow for important communication to be heard.

Fit, Care, and Use

An employer who provides a worker with an HPD must provide adequate **training and instruction** to the worker in the care and use of the device.

Summary

Control of noise in workplaces is of growing importance as a result of increasing hearing loss claims.

This is a convenient way of understanding the overall problem and a useful approach for putting control measures in place. The three components can usually be treated in isolation, although sometimes all three must be considered together in order to control unacceptable noise levels.

1. At the source, measures are aimed at reducing or eliminating the noise being generated.
2. Along the path, barriers can be introduced to reduce the amount of noise reaching the worker.
3. At the worker, measures involve personal protective equipment being properly selected, fitted, and worn. This PPE must be used in high noise environments all the time.

Failure to provide preventive or control measures will result in temporary and ultimately permanent hearing losses.