

# The AMS Noise School

Noise is and will be an integrated part of our industry. Hearing damage is therefore a threat in our work environment. Hearing damage is a permanent state, with its “social isolation” of the person affected and safety risks do to lack of hearing, e.g. alarms.

There are two types of hearing damage. The traditional one comes with prolonged exposure, the rule of thumb is exposure to 85 dBA or higher, without any hearing protection. Importantly; a lower level exposure can develop into hearing damage, for vulnerable individual (biologically). The other type is an instantaneous damage from impulse noise, this is a scary thought. Impulse noises often occur in areas that are otherwise quiet. In this kind of area, it often tempting to take off the hearing protection, such as for talking to a colleague or taking a phone call. If the impulse occurs when not wearing the hearing protection then the person can get a permanent hearing damage, after only 1 second of exposure.

We have worked constantly through the years to minimize the noise by limiting or eliminating noise sources. Putting up barriers and isolating machinery, we have noise-proved the break and control rooms, and adjusted the acoustics as much as possible to help prevent hearing damages. We have mapped and put up signs to indicate the noise trouble zones, but at the end of the day it is the correct use of hearing protection that will give the positive end results.

When we have assured us that all barrier that are feasible are in place and operating correctly, then we stand up with the areas or noise sources that needs the last barrier of protection and that is correct noise personal protective equipment (PPE). For any PPE to work then it needs to be used and worn correctly.

The problem we face with hearing protection as an end barrier is that the damage that the workers are standing in front of is usually something that occurs over long period of time and not noticeable in our day to day operation. It is easier to remember to protect ourselves against something that is immediate





or has a higher acute potential of harming us. This is where the AMS Noise school (from now on “the school”) comes in. It was developed in 2013 by Kjetil Vold (physiotherapist) and Michael Schou (doctor) at the Hydro Aluminium Karmøy - Bedriftshelsetjenesten (BHT) or the Corporate Health Services. Most of AMS member plants go through the school annually with all their staff and young summer workers.

The purpose of the school is to create a curriculum on the subject that is motivating and easy to understand. There is nothing revolutionary in its content, this subject has been taught for many years. However, we have aimed to do it in a way that makes it more interesting and hopefully in a way that the topic will sit with the audience and helps them to understand the risk that is at hand and know how to protect themselves. We have tried to make it more fun with the help of video and audio clips, and also using a noise meter in the room so the audience get an “hands on” or “ears on” how noise is measured and felt. It is our experience that the noise meter has created involvement and interest of the audience. More detailed instructions on the use of the noise meter is in the school itself.

There will not be an illustration on the content of the school here, since we have opened the school to anyone that wish to use it (see link below). It is open for editing so that each company or division can adjust it to their needs and audience, input their own statistic and local regulation. We recommend having a health personnel conducting the school, to be able to answer any questions. Also if possible to ask an employee that has hearing damage to come and say few words about their experience and answer questions.

Each overhead (slide) has information to the conductor on how to explain the topic and get the audience involved. There are also three follow up mini courses that can be used at shift start-up meetings or on display monitors throughout the plant.

It is our hope that by sharing the AMS Noise School that we are spreading a good “noise culture”! ■

## ABOUT AMS

*AMS Aluminium is a project-oriented organization, seeking to achieve its goals/mission for the members by initiating projects in the areas of work environment, emissions and effects on humans and ecosystems. The members are four companies with 10 primary aluminium smelters in Iceland, Sweden and Norway and 1 aluminium refinery in Norway.*

[www.ams-aluminium.net/the-noise-school.html](http://www.ams-aluminium.net/the-noise-school.html)