



Use of Personal Listening Devices in the Workplace

The increase in the popularity of personal listening devices (e.g. iPods or similar devices) has increased the risk of future hearing loss to users of such devices. Personal listening devices (PLDs) are used in various settings, including in the home, in school, while traveling, or in outside environments. However, caution should be taken in allowing the use of PLDs in the workplace. Experience has shown that users will adjust the volume of the PLDs to a suitable listening level, depending on personal preference and the level of background or competing noise.

Since PLDs are not considered approved hearing protective devices, it can be assumed that they would not be used in locations where hearing protection is required (i.e., areas with noise levels equal to or greater than 85 decibels). However, the use of PLDs in areas with noise levels below 85 decibels may present a significant hazard as explained below.

Research indicates that users will set the volume on a PLD between 3 and 15 decibels over the ambient sound level. As such, if the sound level in a work area is 82 decibels, the user's adjusted volume would be in the range of 85 to 97 decibels. Due to the level of background noise, the worker probably wouldn't realize that he/she was being exposed to potentially hazardous noise levels. During a recent industrial hygiene exposure assessment of an autobody repair shop, an employee working in a paint booth was observed wearing an iPod. Although the background noise level in the paint booth was below the OSHA Action Limit (85 decibels), measurement of the noise level directly in the earbud of the iPod indicated that the device was being operated at 97 decibels, 12 decibels above the OSHA Action Limit. Of additional concern is the fact that the noise source was being transmitted directly into the ear.

An additional concern with the use of PLDs is whether the employee would be able to hear warning signals, such as fire alarms and machinery malfunctions while wearing a PLD. As such, employers should take caution in permitting the use of PLDs in the work environment, taking into account the level of background noise that exists in the employee's work area.