Establishing a Position on Portable Stereo Headsets

Management and employees should know that stereo headsets can pose a hazard to hearing if they are played too loud for any significant length of time—whether on or off the job. The energy of sound can pose a threat to human hearing sensitivity.

It has been found that listening to such devices at more than 50 to 75 percent rated output will generate sound levels in excess of the OSHA Permissible Exposure Limit (PEL). This creates a threat to the wearer’s hearing and poses a potential safety hazard by masking environmental sounds that need to be heard.

A study done at North Carolina State University (NCSU) found the following:

- The typical commercial headset player provides the following A-weighted decibel levels for these percentages of volume setting:
  - 64 dBA at 25 percent
  - 81 dBA at 50 percent
  - 91 dBA at 75 percent
  - 96 dBA at 100 percent

- Of twenty different types of headsets evaluated for noise attenuation, the Noise Reduction Rating averaged 1 dB, thus concluding that such headsets afford no ear protection.

- In a North Carolina textile mill where the time-weighted average (TWA) was 87 dBA, NCSU researchers also found the median headset level to be 84 dBA, with 20 percent of workers listening at 90 dBA or greater.

- General Motors’ industrial hygiene department found typical headset output levels of 99 to 100 dBA in auto workers with a maximum exposure level of 117 dBA.

The use of stereo headsets in noise environments in excess of the information above (29 CFR 1910.95) is a violation. The use of these devices over required ear protection is a violation. However, the use of stereo headsets in occupational noise less than the information above is at managerial discretion unless its use causes a serious safety hazard to warrant issuance of a 5(a)(1) - [General Duty Clause].

Because of such findings, a number of employers have simply resorted to the outright banning of stereo headsets at work sites – since it is impractical to control individual volume settings for such devices. The United States Postal Service has come up with a unique solution. They have developed special earmuffs equipped with volume-limited music for use in monotonous high noise jobs. They are designed to protect employee hearing while allowing them to enjoy background music. Such devices are in compliance with OSHA regulations if they meet the attenuation requirements relative to the workplace noise levels and their average music output is less than 90 dBA.