Occupational safety and health administration noise standarts

Business, Human Resources

Threshold Limit Values are guidelines for use of industrial hygienists in making a decision regarding safe levels of exposure to various hazards including noise found in the workplace. ACGIH's threshold limit values (TLVs) refer to sound pressure levels and durations of exposure that represent conditions under which it is believed that nearly all workers may be repeatedly exposed without adverse effect on their ability to hear and understand normal speech. Their TLV publications can be accessed through purchase since their publications have copyrights. ACGIH-TLVs do not have a legal force in the USA; they are only recommendations/ guides and not regulatory limits due to individual susceptibility, hence ACGIH is not a standard-setting body. Regulatory bodies view ACGIH's guidelines as an expression of scientific opinion. ACGIH has several committees set up that decides which substance is to be selected for study and votes once a year on action terms. Each substance/element is selected based upon its availability, relevance, and scientific data. ACGIH has established exposure guidelines for occupational exposure to noise in their Threshold Limit Values (TLVs), 85 dBA PEL with a 3 dBA exchange rate. ACGIH guidelines are used to measure workplace and personal noise exposure limits, assess the risk of hearing loss, determine the need for hearing conservation program and identifying practical methods of controlling noise exposures.

As compared to ACGIH's guidelines, Occupational Safety and Health Administration (OSHA) a part of the USA's Department of Labor (USDOL) publish Permissible Exposure Limits (PEL). PEL are regulatory limits enforced on all employers. These PELs were initially based on ACGIH TLVs in 1971. If

OSHA determines the need for a specific standard it calls for advisory committees (ad hoc or standing) to develop recommendations. OSHA requires that when workplace exposures exceed 100% of the PEL i. e. exposure exceed 90dBA, feasible engineering or administrative controls must be deployed to reduce noise levels. Engineering control includes redesigning space and operations to reduce noise at source, transmission path or at the receivers end. Administrative controls include scheduling and controlling the level of exposure for example length of time an employee is exposed to the noise.

OSHA enforced the use of PPE as the last resort from noise and deploying effective hearing conservation program as a must by an employer in general industry whenever noise exposure is equal to or greater than 85 dBA for an 8-hour exposure or in the construction industry when exposure exceeds 90 dBA for an 8-hour exposure. These programs include annual audiometric testing and require hearing protection devices (PPEs). Hence they have given limits to each exposure specific to each industry to be imposed with close monitoring and regulatory consequences and fines are imposed if compliance is not done, whereas ACGIHs noise recommendations are mere guidelines provided. OSHA representative can also conduct noise readings via a surprise visit any time. Hence compliance with OSHA’s noise standards is a must.