

NOISE INDUCED HEARING LOSS

NOISE MEASURING EQUIPMENT

NOVEMBER 2006

INTEGRATING SOUND LEVEL METER

This is primarily designed as a hand held meter although it can be placed at fixed locations. A representative measurement is made for each job function and exposure time for each, and from there the daily or weekly exposure can be calculated.

NOISE DOSIMETER

This is normally used where the work pattern of an employee becomes more complex, or where it is not practicable to use a sound level meter. This consists of a microphone with a cable connected to a unit worn by the employee. Readings can be taken directly from the instrument or downloaded to calculate the noise dose. Dosimeters can be useful, in that information downloaded to PC can be analysed to establish when and where high noise exposures occur, giving the employer greater ability to focus noise control efforts.

LIMITATIONS

In performing a noise survey it is important to know how these instruments should be used, recognising the limitations and pitfalls in using each and conducted at a time which represents a standard working environment. Dosimeters in particular can be interfered with by an irresponsible user and instruments need periodic calibration.

When using such machines it is also important to recognise that accuracy can vary depending on the equipment used. Given the logarithmic nature of the decibel scale a variance of only 1 or 2 decibels can often mean serious misinterpretation of noise levels. This margin of error should be accounted for and the worst case scenario measurement taken as the reading, particularly where close to an action value.