

Practical 3

Occupational Noise Assessment for Work Area

1. Aim

The aim of this practical is to determine the occupational noise exposure of personnel in a work area, using both a sound level meter and a noise dosimeter, and to develop a noise management plan for the work area.

2. Equipment Preparation

- Sound level meter and calibrator Check the battery and the calibration and record the relevant details
- Prepare noise dosimeter for use on personnel in the work area

3. Preparation for Measurements

- Inspect the work area and discuss the work and noise sources with supervisor and with operators
- Note any noise management currently adopted
- Make a sketch of the work area and mark selected locations of employees
- Determine all the components of a typical work day for the employee
- For each machine or operation note the time the operator would be exposed to that noise
- For each machine or operation, discuss the process and assess the measurement time needed to obtain accurate data
- Develop a measurement strategy in consultation with the others in your group and with the operator.

4. Noise Level Measurement

- Place the noise dosimeter on one or more operators. Remove at the end of the time period and download the data
- For each machine or process, measure the noise level at the operator location for a representative time period
- If appropriate repeat the measurements with nearby machines also operating
- Determine the frequency spectrum for the noise from one machine or process.

Name

Sound Level Meter:

Type/Model:..... Serial Number.....

Settings of meter:

.....

Portable Calibrator:

Type/Model:..... Serial Number.....

Performance Check Level on Meter:

Noise Dosimeter:

Type/Model:..... Serial Number.....

Performance Check

Sketch of work area

Note location of each machine or process, the nature of the work area including signage

Name

For employee:.....

Task	Measurement time	L_{Cpk}	L_{Aeq}	Pa^2	Operation Time, hr	$EAT Pa^2h$

Frequency analysis of a machine/task

Frequency, Hz	Sound Pressure Level dB						
	125	250	500	1000	2000	4000	8000
Sample 1							
Sample 2							
Sample 3							
Average							