

SCHEDULE 1

Regulation 2(1)

PART 1

DAILY PERSONAL NOISE EXPOSURE LEVELS

1. The daily personal noise exposure level $L_{EP,d}$, which corresponds to $L_{EX,8h}$ defined in international standard ISO 1999: 1990 clause 3.6, is expressed in decibels and is ascertained using the formula:

$$L_{EP,d} = L_{Aeq,T_e} + 10 \log_{10} \left[\frac{T_e}{T_0} \right]$$

where—

T_e is the duration of the person's working day, in seconds;

T_0 is 28,800 seconds (8 hours); and

L_{Aeq,T_e} is the equivalent continuous A-weighted sound pressure level, as defined in ISO 1999: 1990 clause 3.5, in decibels, that represents the sound the person is exposed to during the working day.

2. If the work is such that the daily exposure consists of two or more periods with different sound levels, the daily personal noise exposure level ($L_{EP,d}$) for the combination of periods is ascertained using the formula:

$$L_{EP,d} = 10 \log_{10} \left[\frac{1}{T_e} \sum_{i=1}^n (T_i 10^{(L_{Aeq,T_i}-L_{EP,d})/10}) \right]$$

where—

n is the number of individual periods in the working day;

T_i is the duration of period i

$(L_{Aeq,T_i})_i$ is the equivalent continuous A-weighted sound pressure level that represents the sound the person is exposed to during period i ; and

$$\sum_{i=1}^n$$

is equal to T_e , the duration of the person's working day, in seconds.

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PART 2

WEEKLY PERSONAL NOISE EXPOSURE LEVELS

The weekly personal noise exposure, $L_{EP,w}$, which corresponds to

$L_{EX,w}$

defined in international standard ISO 1999: 1990 clause 3.6 (note 2) for a nominal week of five working days, is expressed in decibels and is ascertained using the formula:

$$L_{EP,w} = 10 \log_{10} \left[\frac{1}{m} \sum_{i=1}^m 10^{(L_{EP,d,i}-L_{EP,w})/10} \right]$$

where—

m is the number of working days on which the person is exposed to noise during a week; and
 $(L_{EP,d})_i$ is the $L_{EP,d}$ for the working day i .