WAC 296-307-63415 Use these equations when estimating full-day noise exposure from sound level measurements.

You must:

• Compute employee's full-day noise exposure by using the appropriate equations from Table 3 "Noise Dose Computation" **when** using a sound level meter to estimate noise dose.

Table 3
Noise Dose Computation

Description	Equation
Compute the noise dose based on several time periods of constant noise during the shift	The total noise dose over the work day, as a percentage, is given by the following equation where C_n indicates the total time of exposure at a specific noise level, and T_n indicates the reference duration for that level. $D = 100*((C_1/T_1) + (C_2/T_2) + (C_3/T_3) + ... + (C_n/T_n))$
The reference duration is equal to the time of exposure to continuous noise at a specific sound level that will result in a one hundred percent dose	The reference duration, T, for sound level, L, is given in hours by the equation: $T = 8/(2^{((L - 90)/5)})$
Given a noise dose as a percentage, compute the equivalent eight-hour time weighted average noise level	The equivalent eight-hour time weighted average, TWA_8, is computed from the dose, D, by the equation: $TWA_8 = 16.61* Log_{10}(D/100) + 90$

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-01-166, § 296-307-63415, filed 12/21/04, effective 4/2/05.]