DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

BUREAU OF SAFETY AND REGULATION

OCCUPATIONAL HEALTH STANDARDS COMMISSION

OCCUPATIONAL NOISE EXPOSURE

(By authority conferred on the occupational health standards commission by section 24 of Act No. 154 of the Public Acts of 1974, as amended, being S408.1024 of the Michigan Compiled Laws)

R 325.60131 Noise exposure; conservation program.

Rule 1. (1) An employer shall ensure that protection against the effects of noise exposure is provided when the sound levels exceed those shown in Table D-2 of this rule when measured on the A-scale of a standard sound level meter at slow response. [1926.52(a)]

(2) An employer shall utilize feasible administrative or engineering controls if employees are subjected to sound levels exceeding those listed in Table D-2 of this rule. If the controls fail to reduce sound levels within the levels of the table, then an employer shall ensure that personal protective equipment is provided and used to reduce sound levels within the levels of the table. [1926.52(b)]

(a) An employer shall ensure that ear protective devices inserted in the ear are fitted or determined individually by competent persons.[1926.101(b)]

(b) An employer shall ensure that plain cotton is not used as a protective device. [1926.101(c)]

(3) If the variations in noise level involve maxima at intervals of 1 second or less, then it is to be considered continuous. [1926.52(c)]

(4) An employer shall implement a continuous and effective hearing conservation program if sound levels exceed the values shown in Table D-2. [1926.52(d)(1)]

TABLE D-2--PERMISSIBLE NOISE EXPOSURES

Duration per day, hours:	Sound Level dBA Slow Response
8	90
6	92
4	95
3	97
2	100

1 1/2	102
1	105
1/2	110
1/4 or less	115

(a) If the daily noise exposure is composed of 2 or more periods of noise exposure of different levels, then an employer shall consider their combined effect rather than the individual effect of each. An employer shall compute exposure to different levels for various periods of time according to the formula set forth in subdivision (b) of this subrule. [1926.52(d)(2)(i)]

(b) $Fe = \frac{T1}{L1} + \frac{T2}{L2} + ... + \frac{Tn}{Ln}$

where:

Fe = The equivalent noise exposure factor.

T = The period of noise exposure at any essentially constant level.

L = The duration of the permissible noise exposure at the constant level (from Table D-2).

If the value of Fe exceeds unity (1), then the exposure exceeds permissible levels. [1926.52(d)(2)(ii)]

(c) A sample computation showing an application of the formula in subdivision (b) of this subrule is as follows. An employee is exposed at these levels for these periods:

110 dBA for 1/4 hour.

100 dBA for 1/2 hour.

90 dBA for 1 1/2 hours.

$Fe = \frac{1/4}{1/2} + \frac{1/2}{2} + \frac{1\ 1/2}{8}$

$Fe = 0.500 + 0.25 + 0.188$

$Fe = 0.938$

Since the value of Fe does not exceed unity, the exposure is within permissible limits. [1926.52(d)(2)(iii)]

(5) An employer shall ensure that exposure to impulsive or impact noise is not more than 140 dB peak sound pressure level. [1926.52(e)]

(6) This rule rescinds and replaces occupational health construction rule 6501(2)(a) to (c) and rule 6260.

History: 1998-2000 AACS.