

**§ 57.5046**

**30 CFR Ch. I (7-1-00 Edition)**

**§ 57.5046 Protection against radon gas.**

Where radon daughter concentrations exceed 10 WL, respirator protection against radon gas shall be provided in addition to protection against radon daughters. Protection against radon gas shall be provided by supplied air devices or by face masks containing absorbent material capable of removing both the radon and its daughters.

**§ 57.5047 Gamma radiation surveys.**

(a) Gamma radiation surveys shall be conducted annually in all underground mines where radioactive ores are mined.

(b) Surveys shall be in accordance with American National Standards (ANSI) Standard N13.8-1973, entitled "Radiation Protection in Uranium Mines", section 14.1 page 12, which is hereby incorporated by reference and made a part hereof. This publication may be examined in any Metal and Nonmetal Mine Safety and Health District Office, Mine Safety and Health Administration, or may be obtained from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

(c) Where average gamma radiation measurements are in excess of 2.0 milliroentgens per hour in the working place, gamma radiation dosimeters shall be provided for all persons affected, and records of cumulative individual gamma radiation exposure shall be kept.

(d) Annual individual gamma radiation exposure shall not exceed 5 rems.

[50 FR 4082, Jan. 29, 1985, as amended at 60 FR 33723, June 29, 1995; 60 FR 35695, July 11, 1995]

**PHYSICAL AGENTS—SURFACE AND UNDERGROUND**

**§ 57.5050 Exposure limits for noise.**

(a) No employee shall be permitted an exposure to noise in excess of that specified in the table below. Noise level measurements shall be made using a sound level meter meeting specifications for type 2 meters contained in American National Standards Institute (ANSI) Standard S1.4-1971, "General Purpose Sound Level Meters," approved April 27, 1971, which is hereby incorporated by reference and made a

part hereof, or by a dosimeter with similar accuracy. This publication may be obtained from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018, or may be examined in any Metal and Nonmetal Mine Health and Safety District or District Office of the Mine Safety and Health Administration.

**PERMISSIBLE NOISE EXPOSURES**

Duration per day, hours of exposure	Sound level dBA, slow response
8 .....	90
6 .....	92
4 .....	95
3 .....	97
2 .....	100
1½ .....	102
1 .....	105
½ .....	110
¼ or less .....	115

No exposure shall exceed 115 dBA. Impact or impulsive noises shall not exceed 140 dB, peak sound pressure level.

NOTE: When the daily exposure is composed of two or more periods of noise exposure at different levels, their combined effect shall be considered rather than the individual effect of each.

If the sum

$$(C_1/T_1) + (C_2/T_2) + \dots + (C_n/T_n)$$

exceeds unity, then the mixed exposure shall be considered to exceed the permissible exposure.  $C_n$  indicates the total time of exposure at a specified noise level, and  $T_n$  indicates the total time of exposure permitted at that level. Interpolation between tabulated values may be determined by the following formula:

$$\log T = 6.322 - 0.0602 SL$$

Where  $T$  is the time in hours and  $SL$  is the sound level in dBA.

(b) When employees' exposure exceeds that listed in the above table, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce exposure to within permissible levels, personal protection equipment shall be provided and used to reduce sound levels to within the levels of the table.

[50 FR 4082, Jan. 29, 1985, as amended at 60 FR 35695, July 11, 1995]

EFFECTIVE DATE NOTE: At 64 FR 49629, Sept. 13, 1999, § 57.5050 and the undesignated