

(2) Any direct supervisor of the persons described in paragraph (a)(1) of this section whose duties require frequent work in the locomotive cab; and

(3) At the election of the railroad, any other person (including a person excluded by paragraph (a)(1) of this section) whose duties require frequent work in the locomotive cab and whose primary noise exposure is reasonably expected to be experienced in the cab, if the position occupied by such person is designated in writing by the railroad, as required by § 227.121(d).

(b) Occupational noise exposure and hearing conservation for employees not covered by this subpart is governed by the appropriate occupational noise exposure regulation of the U.S. Department of Labor, Occupational Safety and Health Administration located at 29 CFR 1910.95.

**§ 227.103 Noise monitoring program.**

(a) *Schedule.* A railroad shall develop and implement a noise monitoring program to determine whether any employee covered by the scope of this subpart may be exposed to noise that may equal or exceed an 8-hour TWA of 85 dB(A), in accordance with the following schedule:

(1) Class 1, passenger, and commuter railroads no later than February 26, 2008.

(2) Railroads with 400,000 or more annual employee hours that are not Class 1, passenger, or commuter railroads no later than August 26, 2008.

(3) Railroads with fewer than 400,000 annual employee hours no later than August 26, 2009.

(b) *Sampling strategy.*

(1) In its monitoring program, the railroad shall use a sampling strategy that is designed to identify employees for inclusion in the hearing conservation program and to enable the proper selection of hearing protection.

(2) Where circumstances such as high worker mobility, significant variations in sound level, or a significant component of impulse noise make area monitoring generally inappropriate, the railroad shall use representative personal sampling to comply with the monitoring requirements of this section, unless the railroad can show that

area sampling produces equivalent results.

(c) *Noise measurements.*

(1) All continuous, intermittent, and impulse sound levels from 80 decibels to 140 decibels shall be integrated into the noise measurements.

(2) Noise measurements shall be made under typical operating conditions using:

(i) A sound level meter conforming, at a minimum, to the requirements of ANSI S1.4-1983 (Reaffirmed 2001) (incorporated by reference, see § 227.103(h)), Type 2, and set to an A-weighted SLOW response;

(ii) An integrated sound level meter conforming, at a minimum, to the requirements of ANSI S1.43-1997 (Reaffirmed 2002) (incorporated by reference, see § 227.103(h)), Type 2, and set to an A-weighted slow response ; or

(iii) A noise dosimeter conforming, at a minimum, to the requirements of ANSI S1.25-1991 (Reaffirmed 2002) (incorporated by reference, see § 227.103(h)) and set to an A-weighted SLOW response.

(3) All instruments used to measure employee noise exposure shall be calibrated to ensure accurate measurements.

(d) The railroad shall repeat noise monitoring, consistent with the requirements of this section, whenever a change in operations, process, equipment, or controls increases noise exposures to the extent that:

(1) Additional employees may be exposed at or above the action level; or

(2) The attenuation provided by hearing protectors being used by employees may be inadequate to meet the requirements of § 227.103.

(e) In administering the monitoring program, the railroad shall take into consideration the identification of work environments where the use of hearing protectors may be omitted.

(f) *Observation of monitoring.* The railroad shall provide affected employees or their representatives with an opportunity to observe any noise dose measurements conducted pursuant to this section.

(g) *Reporting of monitoring results.*

(1) The railroad shall notify each monitored employee of the results of the monitoring.

## § 227.105

(2) The railroad shall post the monitoring results at the appropriate crew origination point for a minimum of 30 days. The posting should include sufficient information to permit other crews to understand the meaning of the results in the context of the operations monitored.

(h) *Incorporation by reference.* The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy of the incorporated materials from the American National Standards Institute at 1819 L Street, NW., Washington, DC 20036 or <http://www.ansi.org>. You may inspect a copy of the incorporated standards at the Federal Railroad Administration, Docket Room, 1120 Vermont Ave., NW., Suite 700, Washington, DC 20005, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(1) ANSI S1.4-1983 (Reaffirmed 2001), Specification for Sound Level Meters, incorporation by reference (IBR) approved for § 227.103(c)(2)(i).

(2) ANSI S1.43-1997 (Reaffirmed 2002), Specifications for Integrating-Averaging Sound Level Meters, IBR approved for § 227.103(c)(2)(ii).

(3) ANSI S1.25-1991 (Reaffirmed 2002), Specification for Personal Noise Dosimeters, IBR approved for § 227.103(c)(2)(iii).

### § 227.105 Protection of employees.

(a) A railroad shall provide appropriate protection for its employees who are exposed to noise, as measured according to § 227.103, that exceeds the limits specified in appendix A of this part.

(b) In assessing whether exposures exceed 115 dB(A), as set forth in paragraph (a) of this section and appendix A to this part, the apparent source of the noise exposures shall be observed and documented and measurement artifacts may be removed.

## 49 CFR Ch. II (10-1-07 Edition)

(c) Except as set forth in paragraph (d) of this section, exposure to continuous noise shall not exceed 115dB(A).

(d) Exposures to continuous noise greater than 115 dB(A) and equal to or less than 120 dB(A) are permissible, provided that the total daily duration does not exceed 5 seconds.

### § 227.107 Hearing conservation program.

(a) Consistent with the requirements of the noise monitoring program required by § 227.103, the railroad shall administer a continuing, effective hearing conservation program, as set forth in §§ 227.109 through 227.121, for all employees exposed to noise at or above the action level.

(b) For purposes of the hearing conservation program, employee noise exposure shall be computed in accordance with the tables in appendix A of this part, and without regard to any attenuation provided by the use of hearing protectors.

### § 227.109 Audiometric testing program.

(a) Each railroad shall establish and maintain an audiometric testing program as set forth in this section and include employees who are required to be included in a hearing conservation program pursuant to § 227.107.

(b) *Cost.* The audiometric tests shall be provided at no cost to employees.

(c) *Tests.* Audiometric tests shall be performed by:

(1) An audiologist, otolaryngologist, or other physician who has experience and expertise in hearing and hearing loss; or

(2) A qualified technician.

(d) [Reserved]

(e) *Baseline audiogram.* This paragraph (e) applies to employees who are required by § 227.107 to be included in a hearing conservation program.

(1) *New employees.*

(i) Except as provided in paragraph (e)(1)(ii), for employees hired after February 26, 2007, the railroad shall establish a valid baseline audiogram within 6 months of the new employee's first tour of duty.

(ii) Where mobile test vans are used to meet the requirement in paragraph (e)(1)(i), the railroad shall establish a valid baseline audiogram within one