

# Noise Regional Emphasis Program

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## Background

A 2010 NIOSH/NORA publication, titled “Occupationally-Induced Hearing Loss”, indicated:

- occupational hearing loss is the most commonly recorded occupational illness in manufacturing (17,700 cases out of 59,100 cases), about **one-third of all recordable illnesses**.

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## CY2016 BLS Data

- National average hearing loss rate for All Private Manufacturing was 9.7 cases per 10,000 full time workers.
- Industries covered by this REP were identified as having higher than average hearing loss rates.

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## Who is covered?

- 3311xx Iron and Steel Mills
- 3312xx Steel Product Manufacturing from Purchased Steel
- 3313xx Alumina and Aluminum Production and Processing  
(except 331314, 331315)
- 3314xx Nonferrous metal (except aluminum) Production and Processing  
(except 331410, 331492)
- 3315xx Foundries
- 3321xx Forging and Stamping (except 332114 and 332117)
- 3322xx Cutlery and Handtool Manufacturing (except 332215)
- 332313 Plate Work Manufacturing
- 3324xx Boiler, Tank, and Shipping Container Manufacturing  
(except 332410, 332439)
- 3326xx Spring and Wire Product Manufacturing (except 332613)
- 33272x Turned Product and Screw, Nut, and Bolt Manufacturing
- 3329xx Other Fabricated Metal Product Manufacturing  
(except 332910, 332911, 332912, 332913, 332991, 332992, 332993, 332994, 332996)
- 3331xx Agriculture, Construction, and Mining Manufacturing  
(except 333110, 333112, 333130, 333132)

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## Covered continued

- 333413 Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing
- 333414 Heating Equipment (except warm air furnaces) Manufacturing
- 3335xx Metalworking Machinery Manufacturing  
(except 333511, 333514, 333517, 333519)
- 333618 Other Engine Equipment Manufacturing
- 333912 Welding and Soldering Equipment Manufacturing
- 335221 Household Cooking Appliance Manufacturing
- 3361xx Motor Vehicle Manufacturing
- 3362xx Motor Vehicle Body and Trailer Manufacturing
- 3363xx Motor Vehicle Parts Manufacturing  
(except 336320, 336340, 336350, 336360, 336390)
- 336411 Aircraft Manufacturing
- 3365xx Railroad Rolling Stock Manufacturing
- 3366xx Ship and Boat Building (except 336612)

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## Programmed Inspection Lists

- National Office will prepare a list for Area Office.
  - Randomized and sorted.
- All selected establishments, regardless of size, will be inspected.
  - Establishments with 10 or fewer employees are not exempt from health inspections under the Appropriations Act - CPL 02-00-051.
- Establishments that had a comprehensive health inspection within 24 months will be deleted from the inspection list.

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## Complaints and Referrals

- Shall conduct inspections for complaints/referrals in industries covered by this REP that allege
  - hearing loss,
  - elevated noise levels,
  - lack of hearing protective, or
  - any other noise related hazard.
- Inspection will address noise related complaint items **and items not related to noise.**

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## Inspections

- **Scope** - health inspections focusing on noise hazards.
- **Review**
  - OSHA 300 logs for any standard threshold shifts
  - Noise monitoring data
  - Hearing conservation program
  - Use of hearing protectors
  - Audiometric testing
  - Training

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## Walk around / monitoring

- CSHOs shall conduct a walk around of the facility and obtain sound level meter readings to identify noise in excess of OSHA's action level.
- If readings indicate potential for noise overexposures, CSHOs shall conduct full shift noise monitoring.
- If all readings are below limits during representative work, terminate inspection related to noise hazards.
- The case file must contain documentation of noise surveys, screening, and sampling results.

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## Noise standard – things to know

- Permissible Exposure limit - 8-hour time-weighted average of **90 decibels** measured on the A-scale, slow response, or dose of 100%.
- Action level - 8-hour time-weighted average of **85** decibels measured on the A-scale, slow response, or equivalent dose of 50%.
- Noise dose is computed using
  - $D = 100 (C(1)/T(1) + C(2)/T(2) + \dots + C(n)/T(n))$ ,

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## Hearing Conservation Program

- d. Monitoring
- e. Employee notification – above A.L.
- f. Observation of monitoring
- g. Audiometric testing (who, when & evaluation)
- h. Audiometric test requirements (how)
- i. Hearing protectors
- j. Hearing protector attenuation
- k. Training
- l. Access to information and training materials
- m. Recordkeeping

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## **Noise monitoring** 1910.95(d)(1)

- When information indicates that any employee's exposure may equal or exceed an 8-hour time-weighted average of 85 decibels, the employer shall develop and implement a monitoring program.

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## Audiometric testing program

1910.95(g)(1)

- Establish and maintain an audiometric testing program available to employees whose exposures equal or exceed the action level
- Initial audiogram within **6 months** of first exposure at or above the action level
- Mobile test van exception audiogram within 1 year

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## Annual audiometric testing

1910.95(g)

- Annual audiogram for each employee exposed at or above an 8-hour TWA of 85 decibels.
- Each annual audiogram shall be **compared to** the employee's **baseline** audiogram to determine if a standard threshold shift (STS) has occurred
- If the annual audiogram shows a STS, the employer may obtain a retest within 30 days.

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## Standard threshold shift

- a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear.
- allowance may be made for the contribution of aging (presbycusis)
- Follow procedure described in Appendix F:
  - Calculation and Application of Age Correction to Audiograms.

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## Hearing protectors

1910.95(i)

- Employers shall make hearing protectors available to all employees exposed at the action level (85 dBA) at no cost to employees.
- Employers shall ensure that hearing protectors are worn
- Employees shall be given the opportunity to select their hearing protectors from a variety
- Hearing protectors shall be replaced as necessary.

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## **Noise training** 1910.95(k)(1)

- Repeated annually for each employee included in the hearing conservation program.
  - **(i)** The effects of noise on hearing;
  - **(ii)** The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care; and
  - **(iii)** The purpose of audiometric testing, and an explanation of the test procedures.
- Make a copy of the standard available and post a copy in the workplace.

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## Choices...

- Implement and manage a comprehensive hearing conservation program
- or
- Eliminate or control noise to levels below the limits

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# Questions?

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