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Approved for Release  
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Date

**DEPARTMENT OF COMMERCE  
OFFICE OF HUMAN RESOURCES MANAGEMENT**

**HUMAN RESOURCES (HR) BULLETIN #211, FY16**

**SUBJECT:** Hearing Protection and Conservation Program

**EFFECTIVE DATE:** Upon release of this HR Bulletin

**EXPIRATION DATE:** Effective until canceled or superseded

**SUPERSEDES:** None

**PURPOSE:** This bulletin defines requirements and responsibilities for the Department of Commerce (Department), Office of the Secretary (OS) Hearing Protection and Conservation Program (HPCP), which has been developed to reduce the risk of occupational hearing loss through recognition, evaluation, and control of workplace noise-related hazards.

**BACKGROUND:** OS operating units must meet or exceed the requirements established by the Occupational Safety and Health Administration (OSHA) in 29 Code of Federal Regulations (CFR) 1910.95, Occupational Noise Exposure. The noise control and hearing protection measures described in this bulletin surpass the minimum requirements of OSHA's standard on Occupational Noise Exposure. Implementation of the bulletin's measures will serve to identify and control workplace noise hazards and preserve the hearing of OS employees.

Exposure to high-intensity noise causes hearing loss and occurs as a result of either impulse or blast noise, such as gunfire, or from continuous or intermittent sounds, such as jet or propeller aircraft. Hearing loss is a source of concern with the Department.

Hearing protective devices (HPDs) merely establish a "last line of defense," and do nothing to reduce or eliminate the high-noise-level source. These protective devices may become ineffective through misuse, misapplication, or improper maintenance, and expose the employee unknowingly to dangerous noise levels. Consequently, employees must receive proper training in the selection, use, and limitations of HPDs. Where HPDs are provided to employees, their use is mandatory. Failure to use the equipment may result in disciplinary action.

**COVERAGE:** This HR Bulletin applies to OS employees at OS operating units and/or offices at the national office and field offices and/or locations that, in the conduct of their official duties, could receive noise doses that equal or exceed OS noise dose limits, defined in paragraph (a) of **Requirements**. It also addresses “nuisance noise,” defined in **Definitions**. Such operating units include, but are not limited to, the Office of Security (OSY) and the Office of the Inspector General (OIG). This bulletin also applies to contractor personnel at all OS operating units and facilities.

**APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ORDERS:** Department Administrative Order (DAO) 209-3, “Injury, Illness, Accident/Incident, Fatality and Motor Vehicle Accident Reporting and Investigation”; DAO 209-4, “Occupational Safety and Health Program”; and DAO 202-810, “Workers’ Compensation for Federal Employees”

**REQUIREMENTS:** Requirements of the HPCP include:

- (1) Specification of OS noise dose limits;
- (2) Completion of hazard identification and assessment;
- (3) Use of control methods, including HPDs selected by *competent persons*;
- (4) Completion of initial and annual audiometric testing (for new hires and current employees);
- (5) Completion of activity hazard re-reviews (when appropriate);
- (6) Development and implementation of employee training and communication;
- (7) Maintenance of noise-monitoring records, and development of office/activity-specific standard operating procedure (SOP); and
- (8) Implementation of the buy-quiet initiative (as appropriate).

All HPCP requirements are to be carried out to ensure that employees do not receive noise doses that equal or exceed OS noise dose limits. If potential noise doses equal or exceed OS noise dose limits, engineering or administrative controls must be enacted. If such controls fail to reduce potential noise doses to less than OS noise dose limits, HPDs must be provided and used to reduce noise doses to less than OS noise dose limits.

**Notes:** The **Requirements** apply to employees and their management who, in the conduct of their official duties, could receive noise doses that equal or exceed OS noise dose limits. For a definition of “competent person,” see **Definitions**. The requirements delineated below for noise doses, augmented by the responsibilities in **Roles and Responsibilities**, constitute the HPCP of the Office of the Secretary, which is based on best safety and health practices adopted by the Department (DAO 209-4) and are more protective than the requirements specified by OSHA in 29 CFR 1910.95(c).

a. OS Noise Dose Limits

- (1) Unprotected employees shall not be exposed, during a workday, to noise levels above 80 dBA for durations that would result in their receiving noise doses, D, that equal or exceed 100 percent, where D is calculated from:

$$D = [(C_1/T_1) + (C_2/T_2) + \dots + (C_n/T_n)] \times 100\%.$$

Here,  $C_i$  is the total exposure time, during a work day, at a specified noise level  $L$  ( $\geq 80$  dBA), and  $T_i$  is the time exposure limit at that noise level calculated from the following equations:

$$T = 8 / 2^{(L - 85)/5} \text{ for } 80 \leq L < 85$$

$$T = 8 / 2^{(L - 85)/3} \text{ for } L \geq 85,$$

with  $L$  measured on the A-scale of a standard sound-level meter set at SLOW response and  $T$  measured in hours. **Note:** The equation for  $L > 85$  dBA corresponds to that for the time exposure limits established by ACGIH. The equation for  $80 \text{ dBA} \leq L < 85 \text{ dBA}$  corresponds to that for the action levels established by OSHA in 29 CFR 1910.95(c). Its use in that range, rather than the equation for  $L \geq 85$  dBA, is necessary to ensure compliance by OS with the requirements of 29 CFR 1910.95 for the unlikely occurrence of exposure times greater than 8 hours. Use of these equations yields the following time exposure limits,  $T$ , at different sounds levels,  $L$ :

L (dBA)	T (h)
80	16
81	13.93
82	12.13
83	10.56
84	9.19
85	8
86	6.35
87	5.04
88	4
89	3.17
90	2.52
91	2
92	1.59
93	1.26
94	1
97	0.5
100	0.25
103	0.13
106	0.06
109	0.03
112	0.02
...	...

- (2) Protected employees shall not be exposed to noise levels that would result in their receiving noise doses that equal or exceed 100 percent, taking into account the attenuation provided by the use of HPDs.

b. Hazard Identification

- (1) If a concern arises regarding potential noise hazards in an ongoing activity, a consultation shall be scheduled as soon as possible with a competent person to determine if noise doses could equal or exceed 100 percent. Note: Such a concern could be raised by any individual (e.g., a worker, a coworker, a supervisor, a collateral duty safety and health coordinator), or a competent person. For definitions of Potential Noise Hazard, Noise Hazard, and Competent Person, see **Definitions**.
- (2) If the hazard review of a new activity identifies potential noise hazards, a consultation shall be scheduled as soon as possible with a competent person to determine if noise doses could equal or exceed 100 percent.
- (3) If the hazard review of a change in an existing activity identifies new noise hazards or potential increases in previously identified noise hazards, a consultation shall be scheduled with a competent person to re-evaluate potential noise doses.

c. Hazard Assessment

- (1) If consultation with a competent person indicates that noise doses could equal or exceed 100 percent, arrangements shall be made for a competent person to conduct noise monitoring to determine the noise dose.
- (2) The noise monitoring conducted by the competent person must:
  - (a) Be designed to identify employees for inclusion in the HPCP and to help in selecting proper HPDs.
  - (b) Include personal sampling when high worker mobility, significant variations in sound level, or a high component of impulse noise makes area monitoring inappropriate.
  - (c) Include provisions for notification of each employee whose exposure is at or above an 8-hour time weighted average (TWA) of 85 dBA of the results of the monitoring.
  - (d) Include provisions for observation of the monitoring by supervisor, other management representative(s), employees, or employee representative.

d. Control Methods

- (1) Noise doses that equal or exceed 100 percent
  - (a) Feasible engineering or administrative controls (such as noise-attenuating devices, worker relocation, and reduced exposure times) shall be implemented in an effort to reduce noise doses to less than 100 percent. Note: OSHA currently considers feasible engineering and administrative controls to be those for which the costs of such controls are less than the cost of an effective HPCP.

- (b) If feasible engineering and administrative controls fail to reduce noise doses to less than 100 percent, HPDs identified by a competent person as providing sufficient noise attenuation shall be provided and used to reduce noise doses to less than 100 percent.

(2) Nuisance noise

- (a) If practicable, engineering and administrative controls should be implemented to reduce nuisance noise or exposure to nuisance noise.
- (b) HPDs may be used to reduce exposure to nuisance noise provided that their use does not impede the ability of employees to engage in necessary communications or to hear alarms or other notifications. Decisions to wear HPDs to reduce nuisance noise should be made on a case-by-case basis.

e. Use of HPDs

- (1) HPDs other than ear muffs shall not be traded or shared in work areas in which unprotected employees would receive noise doses that equal or exceed 100 percent.

Ear muffs traded or shared in work areas in which unprotected employees would receive noise doses that equal or exceed 100 percent shall be sanitized between uses. Note: See **Roles and Responsibilities**.

- (2) The use of audio headphones or ear buds in place of, or in conjunction with, HPDs is prohibited. Note: The Department's Office of Occupational Safety and Health (OOSH) may waive this requirement on a case-by-case basis (e.g., in the case of headphones that have been rated by ANSI for noise reduction and that have been determined by a competent person to provide sufficient noise attenuation).

f. Audiometric Testing

- (1) All employees required to wear HPDs to reduce noise doses to less than 100 percent shall be subject to the following audiometric testing requirements:
  - (a) Within 30 days of it being determined that an employee must wear HPDs, the employee must receive an audiogram administered and/or arranged by the Health Unit supporting the OS national office and affected field offices. The initial audiogram is to be used as the baseline against which subsequent audiograms are compared.
  - (b) Employees required to wear HPDs must receive annual audiograms administered or arranged by the Health Unit.
  - (c) All baseline and repeat annual audiograms shall be preceded by at least 14 hours without exposure to workplace noise at levels above 80 dBA and should be preceded

by at least 14 hours without exposure to non-workplace noise at levels above 80 dBA. Note: When at least 14 hours without exposure to workplace noise cannot be achieved, HPDs identified previously by a competent person may be used as a substitute during that period for the requirement that baseline audiograms be preceded by at least 14 hours without exposure to workplace noise.

- (d) If an employee's annual audiogram shows a NIOSH significant threshold shift (NSTS) or an OSHA standard threshold shift (OSTS), the employee must receive a repeat audiogram administered and/or arranged by the affected Health Unit within 30 days.

g. Re-Review of Activity Hazard Reviews

- (1) Upon determination by the Health Unit that an OSTS has occurred, the applicable activity hazard review shall be repeated for validation.
- (2) As part of the re-review of the hazard review, a consultation shall be scheduled with a competent person to re-evaluate the noise exposures of affected employees.

h. Training

- (1) Training provided by the OOSH HPCP Coordinator, operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, competent person, or other designated safety representative on the OS HPCP shall be completed within 30 days of employment and annually thereafter by employees required to wear HPDs to reduce noise doses to less than 100 percent. Note: See 29 CFR 1910.95(k) and Chapter 15 of the Department's "Occupational Safety and Health Manual."
- (2) Retraining provided by the OOSH HPCP Coordinator, operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, competent person, or other designated safety representative on the OS HPCP, including refitting of HPDs, should be completed by each employee who has been notified by the affected Health Unit that he or she has suffered an NSTS.
- (3) Retraining provided by the OOSH HPCP Coordinator, operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, competent person, or other designated safety representative on the OS HPCP, including refitting of HPDs, shall be completed by each employee who has been notified by the affected Health Unit that he or she has suffered an OSTS.
- (4) One-time-only training provided by the OOSH HPCP Coordinator, operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, competent person, or other designated safety representative on the OS HPCP shall be completed by official first-level supervisors of employees required to wear HPDs to reduce noise doses to less than 100 percent.

- (5) One-time training provided by operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, competent person, OOSH HPCP Coordinator, or other designated safety representative on the OS HPCP should be completed by employees exposed to nuisance noise who elect, or are mandated by management, to wear HPDs.
- (6) Training shall be recorded in accordance with the requirements of DAO 209-4, the Department's Occupational Safety and Health Program, and training records maintained and made available to affected employees upon request. **Note: See Roles and Responsibilities.**

i. Noise-Monitoring Records

- (1) The results of hazard assessments (i.e., the results of consultations, including the results of sound-level-meter screening surveys, noise monitoring, identified engineering and administrative controls, and required HPDs) shall be noted, referenced, or included as part of the activity-hazard-review documentation.
- (2) Noise-monitoring results that require employees to wear HPDs to reduce noise doses to less than 100 percent shall be provided to the Health Unit for inclusion in employee medical files.

j. Communication

- (1) Hazard signage shall be posted at entrances to areas in which administrative controls or HPDs are required to reduce noise doses to less than 100 percent. Hazard signage shall clearly indicate the noise hazard and state the required administrative controls and HPDs. Appendix B provides an example of hazard signage that meets these requirements. **Note: See Roles and Responsibilities.**
- (2) Electronic or hard copies of this suborder and of 29 CFR 1910.95 shall be made available to affected employees or their representatives.

k. Buy-Quiet Initiative

- (1) Manufacturers' noise specifications should be evaluated by a competent person before the purchase of equipment capable of producing noise hazards. If a quieter alternative is available, it should be considered; if not, the use of noise-attenuating devices should be considered. **Note:** Firearms are exempt from this requirement until quieter alternatives become feasible and available.

l. Standard Operating Procedure

- (1) Develop an SOP describing the steps required to implement the operating unit's work activities and meet the applicable elements of the HPCP.

- (2) The SOP should indicate the essential steps for safely completing the respective tasks (including who, what, when, where, why, and how the work activities are completed).
- (3) The SOP should indicate the resources and equipment needed when performing the procedure (e.g., the personal protective equipment, protective clothing, HPDs, sanitation supplies, government standards, other administrative orders, other relevant SOPs, etc.).

## **DEFINITIONS:**

**Audibility Threshold** – The sound intensity at a given frequency that is the minimum perceptible by a normal human ear under specified standard conditions.

**Audiogram** – A chart, graph, or table resulting from an audiometric test showing an individual's hearing levels as a function of frequency.

**Audiologist** – A professional specializing in the study and rehabilitation of hearing, and certified by the American Speech-Language-Hearing Association or licensed by a state board of examiners.

**Audiometric Test** – A clinical evaluation of a person's hearing capacity using a calibrated, pure-tone audiometer and performed in accordance with OSHA 29 CFR 1910.95(g) and (h).

**Baseline Audiogram** – An audiogram that is preceded by a 14-hour period of quiet and obtained from an audiometric examination administered before employment or within the first 30 days of employment.

**Certified Industrial Hygienist (CIH)** – An individual who is board certified by the American Board of Industrial Hygiene and has met the minimum requirements for education, experience, and through examination has demonstrated a minimum level of knowledge in occupational health subject areas such as hearing protection.

**Certified Safety Professional (CSP)** – An individual who is board certified by the Board of Certified Safety Professionals and has met the professional challenge of demonstrating competency through education, experience, and examination.

**Competent Person** – A CIH or CSP in OOSH or another Department operating unit (OU) safety and health representative, a collateral duty safety coordinator, a competent person, a consultant CIH or CSP, or an individual directed by a CIH or CSP, who is capable of recognizing, controlling, and evaluating potential occupational hazards. Note: The "Competent Person" definition is based on the one used throughout OSHA (29 CFR 1926.32(f)) and adapted specifically for use in this HPCP.

**dB** – Decibel. See Sound Pressure Level.

dB<sub>A</sub> – Unit representing the sound level measured in dB on the A-weighted scale of a sound-level meter. The A-weighted scale closely resembles how the human ear perceives common sounds.

dB<sub>C</sub> – Unit representing the sound level measured in dB on the C-weighted scale of a sound-level meter. The C-weighted scale represents how the human ear perceives sound at high sound levels.

Frequency – The number of cycles of a periodic motion per unit time. The SI unit of frequency is Hertz (Hz).

Hearing Protection Device (HPD) - A type of personal protective equipment specifically designed to prevent hearing damage. Earplugs and earmuffs are the most common hearing protection devices.

Hertz (Hz) – Unit of measurement of frequency, numerically equal to cycles/second (c/s).

Intermittent Noise – Noise levels interrupted by intervals of relatively low sound levels.

NIOSH Significant Threshold Shift (NSTS) – An increase in an individual's audibility threshold value of 15 dB or more at any of the frequencies 500, 1000, 2000, 3000, 4000, or 6000 Hz, in either ear, from the baseline audiogram to the current audiogram.

Noise Dosimeter – An instrument that integrates cumulative noise exposure over time and directly indicates noise dose. Noise dosimeters are used to conduct noise monitoring during a workday or monitoring period.

Noise Hazard – Sound within the audible frequency range heard by the human ear (20–20,000 Hertz) at levels that, without controls, would result in employees receiving noise doses that equal or exceed Department noise dose limits (see **Requirements** paragraph (a)).

Noise Monitoring – Process or method of measuring a person's individual exposure to noise levels over a given time period.

Nuisance Noise – Noise that would not result in employees receiving noise doses that equal or exceed Department noise dose limits (see **Requirements** paragraph (a)) but that is capable of causing discomfort.

Octave Band Analyzer – A type of sound-level meter that can separate monitored noise levels into specific frequency bands.

OOSH HPCP Coordinator – A competent person designated by the OOSH Director to manage the HPCP for an operating unit that does not have a designated and assigned operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, or other safety and health representative.

OSHA-Recordable Standard Threshold Shift – An OSTTS in an individual with an overall hearing level of 25 dB or more above audiometric zero, averaged at the frequencies 2000, 3000, and 4000 Hz in the same ear as the OSTTS, that has been determined by an audiologist or physician to be workplace-noise induced.

OSHA Standard Threshold Shift (OSTS) – An increase of 10 dB or more in the average of an individual's audibility threshold values at the frequencies 2000, 3000, and 4000 Hz, in either ear, from the baseline audiogram to the current audiogram.

Peak Noise Level – The highest instantaneous sound pressure level recorded during a measurement interval. Peak measurements are independent of noise dosimeter settings for response rate or weighting. According to 29 CFR 1910.95, unprotected employees may not be exposed to peak noise levels greater than 140 dBC.

Potential Noise Hazard – Sound within the audible frequency range heard by the human ear (20–20000 Hertz) that makes it difficult to have a conversation with someone 3 feet away, or has resulted in a complaint by one or more employees, and to which there is a reasonable likelihood that employees could be exposed.

Sound-Level Meter – An instrument used to measure noise levels. A Type 1 sound-level meter is used for precision measurements in the field, and a Type 2 sound level-meter is used for general-purpose measurements.

Sound Pressure – The root-mean-square instantaneous sound pressure at a point during a given time interval.

Sound Pressure Level (dB) – Ten times the logarithm to the base ten of the ratio of the time-mean-square sound pressure, in a stated frequency band, to the square of the reference sound pressure in gases of 20  $\mu$ Pa.

Temporary Threshold Shift – A temporary shift in an ear's audibility threshold possibly caused by exposure to high-intensity acoustic stimuli. It also may be caused by the use of aspirin or other drugs.

Unprotected Employee – An employee not wearing HPDs.

#### **ACRONYMS:**

ACGIH – American Conference of Governmental Industrial Hygienists

ANSI – American National Standards Institute

CFR – Code of Federal Regulations

CIH – Certified Industrial Hygienist

CSP – Certified Safety Professional

HPD – Hearing Protection Device

HPCP – Hearing Protection and Conservation Program

NIOSH – National Institute for Occupational Safety and Health

NIST – National Institute of Standards and Technology

NSTS – NIOSH Significant Threshold Shift

OOSH – Office of Occupational Safety and Health

OSY – Office of Security

OU – Operating Unit

SOP – Standard Operating Procedure

STS – Standard Threshold Shift

**ROLES AND RESPONSIBILITIES:**

a. Employees Engaged in Activities that Could Result in Their Receiving Noise Doses that Equal or Exceed 100 Percent:

- (1) If a concern arises regarding potential noise hazards in an already ongoing activity, schedule a consultation with a competent person as soon as possible to determine if noise doses could equal or exceed 100 percent;
- (2) If the hazard review of a new activity identifies potential noise hazards, schedule a consultation with a competent person to determine if noise doses could equal or exceed 100 percent;
- (3) If the hazard review of a change in an existing activity identifies new noise hazards or potential increases in previously identified noise hazards, schedule a consultation with a competent person to reevaluate potential noise doses;
- (4) Inform official first-level supervisors of any consultations scheduled with competent persons and of the results of those consultations;
- (5) If consultation with a competent person indicates that noise dose could equal or exceed 100 percent, arrange for a competent person to conduct noise monitoring to determine the noise dose;

- (6) If the noise dose equals or exceeds 100 percent, implement feasible engineering or administrative controls (such as noise-attenuating devices, worker relocation, and reduced exposure times) in an effort to reduce noise doses to less than 100 percent;
  - (7) If feasible engineering and administrative controls fail to reduce noise doses to less than 100 percent, use HPDs identified by a competent person to reduce noise doses to less than 100 percent; and
  - (8) Ensure that the results of hazard assessments (i.e., the results of consultations, including the results of sound-level-meter screening surveys, noise monitoring, identified engineering and administrative controls, and required HPDs) are noted, referenced, or included as part of the activity-hazard documentation.
- b. Employees Required to Wear HPDs to Reduce Noise Doses to Less than 100 Percent (in addition to the responsibilities in paragraph (a) of above):
- (1) Use their HPDs in accordance with the requirements of the activity hazard review and their training on HPD fit, use, and care;
  - (2) Participate in audiometric testing as specified in paragraph (f) of **Roles and Responsibilities**;
  - (3) Complete the initial and annual training provided by operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, OOSH HPCP Coordinator, competent person, or other designated safety and health representative on the OS HPCP;
  - (4) Upon being notified by the Health Unit that they have suffered an NSTS, strongly consider completing the retraining provided by the operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, OOSH HPCP Coordinator, competent person, or other designated safety and health representative (e.g., collateral duty safety and health person) on the OS HPCP, including refitting of their HPDs, or complete this training if it is assigned to them by their official first-level supervisors; and
  - (5) Upon being notified by the Health Unit that they have suffered an OSTTS, complete the retraining provided by the operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, OOSH HPCP Coordinator, competent person, or other designated safety and health representative on the OS HPCP, including refitting of their HPDs.
- c. Official First-Level Supervisors of Any of the Above Employees:
- (1) Ensure that competent persons from outside of the operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, OOSH HPCP Coordinator, or other designated independent safety and health representative engaged by the operating unit to conduct hazard assessments and specify HPDs understand the responsibilities delineated below for competent persons;

- (2) Provide the results of hazard assessments resulting in employees being required to use HPDs to all such affected employees, the OOSH HPCP Coordinator, the operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, competent person, or other designated safety and health representative, and the affected Health Unit for inclusion in employee medical files;
- (3) Ensure that the results of hazard assessments are noted, referenced, or included as part of the activity-hazard-review documentation;
- (4) Make electronic or hard copies of this suborder and of 29 CFR 1910.95 available to those employees who are required to wear HPDs, or their representatives;
- (5) Procure the HPDs and sanitation supplies (if ear muffs are traded or shared) selected by the OOSH HPCP Coordinator, the operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, competent person, or other designated safety and health representative.
- (6) Provide affected employees with HPDs identified by competent persons as providing sufficient noise attenuation, at no cost to affected employees;
- (7) Provide affected employees the opportunity to select HPDs from a variety of suitable employer-provided HPDs. Note: See 29 CFR 1910.95(i)(3).
- (8) Provide affected employees with appropriate HPD storage facilities.
- (9) Assign training to affected employees in accordance with the requirements in paragraph (h) of **Requirements**;
- (10) When employees they supervise are required to wear HPDs, complete the one-time-only training provided by the OOSH HPCP Coordinator, operating unit Safety and Health Manager, Collateral Duty Safety Coordinator, competent person, or other designated safety and health representative on the OS HPCP;
- (11) Maintain and make training records available to affected employees and other authorized Department and/or OSHA representatives upon request;
- (12) Work with appropriate noisy area representatives (e.g., firing ranges) to ensure that hazard signage meets the requirements of paragraph e(5) of **Roles and Responsibilities** (or equivalent) and is posted at entrances to areas in which administrative controls or HPDs are required;
- (13) Work with appropriate representatives of affected Health Units to ensure that: the Health Unit is notified of all employees to be covered by the HPCP, including new employees joining the program (within 10 working days); and the audiometric-testing (initial and yearly) is scheduled and administered effectively (for new employees within 30 days of joining the program); and

(14) Upon being notified by the affected Health Unit that employees they supervise have suffered workplace-noise-induced OSTs, ensure that all applicable activity hazard reviews are re-reviewed in accordance with the requirements of the Hazard Review suborder, and, as part of the re-reviews, that consultations with competent persons are scheduled to re-evaluate the noise exposures of affected employees.

d. Employees Exposed to Nuisance Noise:

(1) Strongly consider completing the one-time-only training prescribed by OOSH on the OS HPCP.

e. OOSH HPCP Coordinator:

(1) In the event that the operating unit Safety and Health Manager, Safety Coordinator or other designated safety representative (e.g., collateral duty safety and health person) is not available, or unable to provide the required HPCP training, the OOSH HPCP Coordinator will ensure that training provided by OOSH on the HPCP is available and includes, at a minimum:

(a) An overview of the OS HPCP;

(b) Physical and psychological effects of noise and hearing loss;

(c) Recognition of noise hazards;

(d) Noise control principles:

i. Engineering controls;

ii. Administrative controls, including hazard signage; and

iii. HPDs, including selection, fit, use, and care; and

(e) Overview of audiometric-testing requirements;

(2) Ensure that training provided by the OOSH HPCP Coordinator, operating unit Safety and Health Manager, Safety Coordinator, or other designated safety representative on the HPCP is documented in the Department's electronic safety training application;

(3) Ensure that non-web-based training provided by the OOSH HPCP Coordinator, operating unit Safety and Health Manager, Safety Coordinator, or other designated safety representative on the HPCP and completed by affected employees is recorded in the Department's electronic safety training application;

(4) Ensure that all OSHA-recordable OSTs are recorded on the OSHA 300 log maintained by the OOSH HPCP Coordinator, operating unit Safety and Health Manager, Safety

Coordinator, designated safety representative, or designated OSHA record-keeper in accordance with the requirements of 29 CFR 1904.10, *Recording of Cases Involving Occupational Hearing Loss*; and

- (5) Assist OS staff in developing signage that complies with the requirements of this bulletin and the OSHA Hazard Signage Program (or equivalent).

f. Competent Persons:

- (1) Consult with potentially affected employees to determine if noise doses could equal or exceed 100 percent;
- (2) When it has been determined that noise doses could equal or exceed 100 percent, conduct noise monitoring, document the results in writing, and provide those results to the employee who scheduled the assessment and his or her official first-level supervisor;
- (3) When conducting noise monitoring, inform affected employees in areas being monitored, along with any designated employee representatives, of the purpose of the noise monitoring and provide them with the opportunity to observe noise-monitoring activities;
- (4) When employees are required to wear HPDs to reduce noise doses to less than 100 percent, specify the necessary protection in accordance with 29 CFR 1910.95, Appendix B: “Methods for Estimating the Adequacy of Hearing Protection Attenuation”;
- (5) Recommend a variety of suitable HPDs for selection and proper fit; and
- (6) If noise monitoring identifies a potential noise hazard or a potential increase in a previously identified noise hazard, work with affected employees to ensure that noise doses do not equal or exceed 100 percent;
- (7) Ensure that:
  - (a) Noise screening and octave-band analysis is conducted using ANSI Type 1 or Type 2 sound-level meters;
  - (b) Noise monitoring is conducted using ANSI Type 2 noise dosimeters;
  - (c) Noise dosimeters used for noise monitoring integrate all sound levels between 80 dBA and 130 dBA and measure peak sound levels up to and including 140 dB; and
  - (d) Sound-level meters and noise dosimeters are calibrated at least annually and according to manufacturers’ specifications; and
- (8) Re-evaluate the noise exposures of employees who have suffered workplace-noise-induced OSTSS.

g. Each Health Unit:

- (1) Maintain an audiometric testing program in accordance with 29 CFR 1910.95(g), *Audiometric Testing Program*, and 1910.95 Appendices C, D, E, and F. Note: The Department does not use age correction to attempt to differentiate between hearing losses caused by age-related factors and those caused by noise exposures
  - (a) Notify employees that during the 14-hour period immediately preceding a baseline or repeat annual audiometric examination, they must avoid exposure to workplace noise at levels above 80 dBA and should avoid exposure to non-workplace noise at levels above 80 dBA;
- (2) Conduct audiometric tests in accordance with 29 CFR 1910.95(h), *Audiometric Test Requirements*;
- (3) Determine whether NSTSs and OSTSs have occurred, and upon determining that they have, notify affected employees and affected employees' official first-level supervisors, operating unit Safety and Health Manager, Safety Coordinators, designated safety representative, and the OOSH HPCP Coordinator, in writing within 21 days;
- (4) Upon determining that OSTSs have occurred, arrange for audiological evaluations as necessary to assist in determining whether the OSTSs are workplace-noise induced;
- (5) Upon determining that OSTSs are workplace-noise induced, notify affected employees and affected employees official first-level supervisors, operating unit Safety and Health Manager, Safety Coordinators, designated safety representative, and the OOSH HPCP Coordinator; and
- (6) Maintain audiometric test records in accordance with 29 CFR 1910.95(m), *Recordkeeping*.

## APPENDIX

### A. Hazard Signage

**REFERENCES:** 29 CFR 1910.95, Occupational Noise Exposure; 29 CFR 1904.10, Recording of Cases Involving Occupational Hearing Loss; ACGIH – “Threshold Limit Values (TLVs): Documentation of the Threshold Limit Values for Physical Agents” (2016), or most updated edition; “Criteria for a Recommended Standard, Occupational Noise Exposure”: Department of Health and Human Services (NIOSH) Number 98-126; “American National Standard, Acoustical Terminology,” ANSI S1.1-1994 (R2004); “American National Standard, Specification for Sound-Level Meters,” ANSI S1.4-1983 (R2006)/ANSI S1.4A-1985 (R2006); OSHA Publication 3074, “Hearing Conservation,” revised edition, 2002; NIOSH Publication Preventing Occupational Exposures to Lead and Noise at Indoor Firing Ranges (<http://www.cdc.gov/niosh/docs/2009-136/pdfs/2009-136.pdf>); NIOSH Workplace Safety and Health Topics on Indoor Firing Ranges; OSHA Technical Manual (OTM) Chapter - Noise.

OSHA Directive TED 01-00-015, (August 15, 2013); DOC Occupational Safety and Health Manual, Chapter 15 – Hearing Conservation and Noise Abatement

**APPENDIX A: EXAMPLE of NOISE HAZARD SIGNAGE**

 <b>WARNING</b>	
<b>NOISE HAZARD</b>	
EXCEEDS REGULATORY NOISE LIMITS DURING EQUIPMENT OPERATION	
CAN CAUSE NOISE-INDUCED HEARING LOSS	
DO NOT EXCEED 2 HOURS IN ROOM DURING EQUIPMENT OPERATION	
WEAR EAR PROTECTION	
MINIMUM NOISE REDUCTION RATING (NRR) REQUIRED FOR DUAL EAR PROTECTION: EAR PLUGS (NRR 33), EAR MUFFS (NRR 28)	

