

Page: 1 of 13

Approver: Joe Berry

### Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section #36

Doc # SWP - 36

Revision: 1

### **HEARING CONSERVATION**

CONTENTS	SUBPART
PURPOSE	Α
MONITORING	В
AUDIOMETRIC TESTING PROGRAM	С
HEARING PROTECTION	D
HEARING PROTECTOR ATTENUATION	E
ENGINEERING CONTROLS	F
HEARING CONSERVATION PROGRAM	G
EMPLOYEE NOTIFICATION	Н
BASLINE AUDIOGRAM	I
ANNUAL AUDIOGRAM	J
EVALUATION OF AUDIOGRAM	K
FOLLOW-UP PROCEDURES	L
AUDIOMETRIC TEST REQUIREMENTS	M
TRAINING PROGRAM	N
ACCESS TO INFORMATION AND TRAINING MATERIALS	0
RECORD KEEPING	Р
RECORD RENTENTION	Q
ACCESS TO RECORDS	R
TRANSFER OF RECORDS	S

## **SUBPART A - PURPOSE**

It is the policy of BBGCI to institute an occupational hearing conservation program to prevent any temporary or permanent noise—induced hearing loss to employees, and to comply with Federal OSHA Standard 29 CFR 1910.95.

Host employers/clients shall conduct time-weighted testing to all facilities where employees are present in order to determine compliance to this regulation. Host



Page: 2 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section #36

Doc # SWP - 36

Revision: 1

#### **HEARING CONSERVATION**

employers/clients shall also identify the employees that are exposed to conditions that either meet or surpass the minimum testing criteria and shall notify BBGCI's HS&E/Risk Management Departments.

In addition, BBGCI will conduct noise surveys annually or when new equipment is added or changed on any of its equipment used in the Louisiana operations.

### **SUBPART B - MONITORING**

The host employer/client will monitor and identify workplace noise levels at their work sites using a calibrated sound level meter on an annual basis, or whenever there is a change in production processes, equipment, or controls. BBGCI will also conduct noise level surveys at their own work sites.

Monitoring is performed to determine which employees in which departments are exposed to excessive noise and fall under the hearing conservation program.

Whenever employee noise exposures equals or s an eight-hour time-weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response) or, equivalently, a dose of fifty percent the affected employee will be subject to the hearing conservation program.

Controlling noise at the source using engineering controls must be considered first before any other tactics are implemented.

Warning signs will be posted in conspicuous locations near the high noise level areas to ensure that hearing protection is required when operating machinery.



Page: 3 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section # 36

Doc # SWP - 36

Revision: 1

### **HEARING CONSERVATION**

### **SUBPART C - AUDIOMETRIC TESTING PROGRAM**

The host employer/client and BBGCI shall provide audiometric testing at no cost to every employee in the hearing conservation program.

This testing will be done at the pre-placement physical, and on an annual basis, or whenever changes occur that result in increased noise levels, in employee job transfer situations into or out of a department in the hearing conservation program, and in termination/layoff situations.

- Audiometric testing will be performed by a licensed/certified audiologist, technician, or any other qualified individual.
- A technician who is certified by the Council of Accreditation in Occupational Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations, obtaining valid audiograms, and properly using, maintaining and checking calibration and proper functioning of the audiometers being used.

**NOTE:** A technician who operates microprocessor audiometers does not need to be certified. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist or physician.

- The HS&E / Risk Management Department will inform employees prior to their scheduled testing. Employees must have 14 hours of non-exposure to workplace noise, prior to the actual testing. Protective hearing equipment may be substituted for the necessary waiting period.
- If an employee's audiogram suggests that a standard threshold shift has
  occurred, the employee will be notified in writing within 21 days. He/she will
  be retested within 30 days via a clinical audio logical evaluation or an
  otological examination. The new audiogram will be considered as the
  baseline audiogram for any future testing. The occurrence will be recorded
  on the OSHA 300 log.
- Audiometric testing will be conducted on an annual basis.



Page: 4 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section # 36

Doc # SWP - 36

Revision: 1

### **HEARING CONSERVATION**

Obtain audiograms that meet the requirements of Appendix C of 1910.95: Audiometric Measuring Instruments.

### SUBPART D - HEARING PROTECTION

Employees are required to wear hearing protection, and at no time must an employee tamper with or modify any hearing protection equipment. Damaged or defective equipment must be discarded and replaced. Host employers/clients shall enforce the hearing conservation policy in their area of responsibility when employees are exposed to an 8-hour time-weighted average of 85 decibels or greater.

Hearing protectors are available, at no cost, to all employees exposed to an 8-hour time-weighted average of 85 decibels or greater. Replace hearing protectors as necessary. The host employer along with BBGCI shall ensure that hearing protectors are worn by any employee who is:

- Required to wear personal protective equipment because administrative and engineering controls fail to reduce sound levels to within acceptable levels
- Exposed to an 8-hour time-weighted average of 85 decibels or greater AND has not yet had a baseline audiogram established OR has experienced a standard threshold shift.

All employees in the Hearing Conservation Program will be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors.

In addition, all employees in the Hearing Protection Program will be provided training in the use and care of all hearing protectors.

## SUBPART E - HEARING PROTECTOR ATTENUATION



Page: 5 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section	#	36
---------	---	----

Doc # SWP - 36

Revision: 1

### **HEARING CONSERVATION**

Evaluate hearing protector attenuation for the specific noise environments in which the protector will be used.

Use one of the evaluation methods described in Appendix B of 1910.95: Methods for Estimating the Adequacy of Hearing Protection Attenuation.

Use hearing protectors that attenuate employee exposure at least to an 8-hour time-weighted average of 90 decibels.

IF employees have experienced a standard threshold shift, THEN use hearing protectors that attenuate employee exposure to an 8-hour time-weighted average of 85 decibels or below.

Re-evaluate the adequacy of hearing protector attenuation whenever employee noise exposures increase to the extent that the hearing protectors provided may no longer provide adequate attenuation.

Provide more effective hearing protectors where necessary.

## **SUBPART F - ENGINEERING CONTROLS**

IF employees are subjected to sound exceeding those listed in Table G-16, THEN use feasible administrative or engineering controls.

IF such controls fail to reduce sound levels within the levels of Table G-16, THEN provide and use personal protective equipment to reduce sound levels within the levels of the table.

IF the variations in noise level involve maxima at intervals of 1 second or less, THEN consider it to be continuous.

### **TABLE G-16 - PERMISSIBLE NOISE EXPOSURES (1)**



Page: 6 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section #36

Doc # SWP - 36

Revision: 1

### **HEARING CONSERVATION**

Duration per day, hours	Sound Level dBA slow response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
1/2	110
1/4 or less	115

**Footnote:** (1) IF the daily noise exposure is composed of two or more periods of noise exposure of different levels, THEN consider their combined effect, rather than the individual effect of each. IF the sum of the following fractions: C(1)/T(1) + C(2)/T(2) C(n)/T(n) exceeds unity, THEN consider the mixed exposure to exceed the limit value. On indicates the total time of exposure at a specified noise level, and Tn indicates the total time of exposure permitted at that level. Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

## SUBPART G - HEARING CONSERVATION PROGRAM

The company shall administer a continuing, effective hearing conservation program IF employee noise exposures equal or exceed:

- An 8-hour time-weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response)
- Equivalently, a dose of fifty percent.

Compute employee noise exposures according to Appendix A of 1910.95 and Table G-16a, AND without regard to any attenuation provided by the use of personal protective equipment.

**Note:** Action Level



Page: 7 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section #	36
-----------	----

Doc # SWP - 36

Revision: 1

### **HEARING CONSERVATION**

An 8- hour time-weighted average of 85 decibels or a dose of fifty percent will also be referred to as the action level.

### **SUBPART H - EMPLOYEE NOTIFICATION**

Each employee exposed at or above an 8-hour time-weighted average of 85 decibels, according to the results of the monitoring, shall be notified by the host employer and/or the company HS&E Department.

The following employees will be included in the Hearing Conservation Program:

- Tug boat employees
- Pile driver employees
- Dredge employees
- Dry dock employees
- Norm yard employees
- Crane operators (Yard)
- Shop welders

## **SUBPART I - BASELINE AUDIOGRAM**

A valid baseline audiogram, against which subsequent audiograms can be compared, is established upon the pre-employment physical process or within 6 months of first exposure.

## SUBPART J - ANNUAL AUDIOGRAM

A new audiogram for each employee exposed at or above an 8-hour time-weighted average of 85 decibels is obtained at least annually after obtaining the baseline audiogram.

## **SUBPART K - EVALUATION OF AUDIOGRAM**



Page: 8 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section # 36

Doc # SWP - 36

Revision: 1

### **HEARING CONSERVATION**

Each employee's annual audiogram is compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift (see Note below) has occurred. This comparison may be done by a technician.

IF the annual audiogram shows that an employee has suffered a standard threshold shift, THEN obtain a retest within 30 days and consider the results of the retest as the annual audiogram.

Have the audiologist, otolaryngologist, or physician review problem audiograms and determine whether there is a need for further evaluation.

Provide the following information to the person performing this evaluation:

- A copy of the requirements for hearing conservation in 1910.95(c) through (n).
- The baseline audiogram and most recent audiogram of the employee to be evaluated.
- Measurements of background sound pressure levels in the audiometric test room as required in Appendix D of 1910.95: Audiometric Test Rooms.
- Records of audiometer calibrations.

#### Note:

A Standard Threshold Shift, or STS, is defined in the occupational noise exposure standard at 29 CFR 1910.95(g)(10)(i) as a change in hearing threshold, relative to the baseline audiogram for that employee, of an average of 10 decibels (dB) or more at 2000, 3000, and 4000 hertz (Hz) in one or both ears then it becomes an OSHA recordable incident and must be recorded on the OSHA 300 Log.

## **SUBPART L - FOLLOW-UP PROCEDURES**



Page: 9 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section # 36

Doc # SWP - 36

Revision: 1

### **HEARING CONSERVATION**

IF a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift has occurred, the employee will be notified in writing, within 21 days of the determination.

The following steps will be taken when a standard threshold shift occurs UNLESS a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure:

- Fit employees not using hearing protectors with hearing protectors, train them in their use and care, and require employees to use them.
- Refit employees already using hearing protectors, retrain them in the use of hearing protectors, and provide them with hearing protectors offering greater attenuation if necessary.
- Refer the employee for a clinical audio logical evaluation or an otological examination, as appropriate, if additional testing is necessary or if you suspect that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.
- Inform the employee of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.

IF subsequent audiometric testing of an employee whose exposure to noise is less than an 8-hour TWA of 90 decibels indicates that a standard threshold shift is not persistent, THEN:

- Inform the employee of the new audiometric interpretation
- Discontinue the required use of hearing protectors for that employee, if desired

## **SUBPART M - AUDIOMETRIC TEST REQUIREMENTS**



Page: 10 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section # 36

Doc # SWP - 36

Revision: 1

### **HEARING CONSERVATION**

Require audiometric tests to be pure tone, air conduction, hearing threshold examinations, with test frequencies including as a minimum 500, 1000, 2000, 3000, 4000, and 6000 Hz.

Perform tests at each frequency separately for each ear.

The audiometric tests will be conducted with audiometers (including microprocessor audiometers) that meet the specifications of, and are maintained and used in accordance with, American National Standard Specification for Audiometers, S3.6-1969.

IF using pulsed-tone and self-recording audiometers; they must meet the requirements specified in Appendix C of 1910.95: Audiometric Measuring Instruments.

Administer audiometric examinations in a room that meets the requirements listed in Appendix D of 1910.95: Audiometric Test Rooms.

## **SUBPART N - TRAINING PROGRAM**

A training program for all employees who are exposed to noise at or above an 8-hour time weighted average of 85 decibels will be instituted. Only those employees identified for the program will be included and participate fully in the program.

Repeat the training program annually for each employee included in the hearing conservation program.

Update information provided in the training program to be consistent with changes in protective equipment and work processes.

Each participating employee will be informed of the following:

The effects of noise on hearing.



Page: 11 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section :	#	36
-----------	---	----

Doc # SWP - 36

Revision: 1

#### **HEARING CONSERVATION**

- The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care.
- The purpose of audiometric testing, and an explanation of the test procedures.

# SUBPART O - ACCESS TO INFORMATION AND TRAINING MATERIALS

Make copies of 1910.95 available to affected employees or their representatives and also post a copy in the workplace.

Provide to affected employees any informational materials pertaining to 1910.95 that are supplied to you by the Assistant Secretary.

Provide, upon request, all materials related to your training and education program pertaining to 1910.95 to the Assistant Secretary and the Director.

## **SUBPART P - RECORD KEEPING**

#### **Exposure Measurements**

An accurate record of all employee exposure measurements required by Occupational Noise Exposure will be maintained.

#### **Audiometric Tests**

All employee audiometric test records will be maintained and include:

- Name and job classification of the employee.
- Date of the audiogram.
- The examiner's name.
- Date of the last acoustic or exhaustive calibration of the audiometer.
- Employee's most recent noise exposure assessment.



Page: 12 of 13

Approver: Joe Berry

# Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section	#	36
---------	---	----

Doc # SWP - 36

Revision: 1

#### **HEARING CONSERVATION**

Maintain accurate records of the measurements of the background sound pressure levels in audiometric test rooms.

## **SUBPART Q - RECORD RETENTION**

Retain records required in this action for at least the following periods:

- Retain noise exposure measurement records for two years.
- Retain audiometric test records for the duration of the affected employee's employment.

### **SUBPART R - ACCESS TO RECORDS**

Provide all records required by this action upon request to employees, former employees, representatives designated by the individual employee, and the Assistant Secretary.

Comply with 29 CFR 1910.1020(a)-(e) and (g) with regard to access to records under this action.

### **SUBPART S - TRANSFER OF RECORDS**

IF the company ceases to do business, THEN transfer to the successor employer all records required to be maintained by this action.

The successor employer must retain them for the remainder of the period prescribed in this action.



Page: 13 of 13

Approver: Joe Berry

### Berry Bros. General Contractors, Inc. Corporate Policy Procedure

(HSE) Health, Safety & Environmental Policies and Procedures Manual

Section #36

Doc # SWP - 36

Revision: 1

## **HEARING CONSERVATION**

Revision Date:	02-18-09
Approved By: _	Joe Berry & Safety Committee