Hearing Conservation Program

1910.95 Occupational Noise Exposure

Purpose of the Policy: To help protect and preserve our worker's level of hearing.

Millard Refrigerated Services' motor rooms have been monitored for noise exposures and such testing indicates that the motor rooms exceed OSHA's Permissible Noise Exposures. Millard Refrigerated Services has developed administrative controls, engineering controls and implemented requirement for the use of hearing protectors (PPE).

.95(b)(1): The **administrative controls** are designed to restrict the number of workers exposed to the motor room and limit their exposure time. To provide a baseline audiogram and complete annual audiometric testing with comparisons made between the two. Conduct annual training for all exposed workers. Warning signs are placed on the entrances and the use of hearing protectors are enforced. The **engineering controls** are designed to contain the noise exposures to an isolated area. The rigorous preventive maintenance procedures are design to keep the mechanical equipment operating at peak efficiency, which eliminate unnecessary noise. The room is ventilated to the outside of the building allow for noise to escape. Not all compressors operate simultaneously and primarily operate during off peak hours. **Personal Protective Equipment;** hearing protectors are provided in several forms and are required to be worn by the engineer and maintenance personnel while in the motor room.

.95(c)(1) Hearing Conservation Program: Since the sound levels in the motor room exceed 85 decibels Millard Refrigerated Services has implemented a Hearing Conservation Program.

.95(d) Monitoring:

(d)(1)(i): The engineering and maintenance staff has been identified for inclusion in the hearing conservation program. The Engineers and maintenance staff will be required to have a baseline audiogram test within 6 months of employment and re-assigned employee's to the engineering and maintenance department will also be provided with a baseline audiogram within 6 months of re-assignment. In-addition annual audiograms will be preformed and compared to the baseline test to determine any standard threshold shifts in the workers hearing.

Measuring Device used: Quest Electronic Permissible Sound Level Meter
MSHA – Approval 2G-2891. Model 211A/FS

Regional Distribution Centers (RDC's): During the motor room noise sampling the maximum of 92 decibel was recorded during this testing period.

Distribution Centers (DC's): During the motor room noise sampling the maximum of 95 decibel was recorded during this testing period.

.95(e) Employee Notification: Millard Refrigerated Services will notify each employee exposed to noise exceeding OSHA's Permissible Noise Exposures. All annual audiogram tests showing a standard threshold shift will be discussed with the affected worker by the audiologist.

.95(g) Audiometric Testing Programs:

(g)(3) Audiometric test shall be performed by a licensed or certified audiologist.

(g)(5)(i) Baselines Audiogram: The Engineers and maintenance staff will be required to have a baseline audiogram test within 6 months of employment and re-assigned employee's to the engineering and maintenance department will also be provided with a baseline audiogram within 6 months of re-assignment.

(g)(5)(iii) To establish a baseline audiogram, involved workers shall not be exposed to loud workplace noises within 14 hours before the baseline test. Hearing protector may be used as a substitute for the 14-hour requirement.

(g)(5)(iv) Notify all worker scheduled for a baseline audiogram of the requirement of **(g)(5)(iii).**

(g)(6) Annual audiogram: At least annually after obtaining the baseline audiogram.

(g)(7)(i) Evaluation of audiogram: Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. This comparison must be done by the testing facility.

(g)(7)(ii): If the annual audiogram shows that a worker has suffered a standard threshold shift, you must retest the worker within 30 days and consider the results of the retest as the annual audiogram.

(g)(7)(iii): The audiologist shall review problem audiograms and shall determine whether there is a need for further evaluations.

(g)(8)(i) Follow-up procedures: If the comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, the employee shall be informed of this fact in writing, within 21 days of the determination.

(g)(8)(ii): If the Audiologist has determined that a standard threshold shift has occurred as the result our occupational noise exposure, then Millard Refrigerated Services will complete the following:

> **(B):** For workers already using hearing protectors shall be refitted and retrained in the use of hearing protectors and supplied with hearing protectors offering greater reduction if necessary.

Special Note: If a standard threshold shift has been determined by the audiologist, then the General Manger shall notify the Corporate Loss Prevention Manager to discuss further actions and requirements.

(i)(1) Hearing protectors: A selection of hearing protectors will be provided at the entrance to the motor room. The facility's engineering and maintenance personnel are required to wear hearing protectors while in the motor room.

All hearing protectors are sold with a Noise Reduction Rating (NRR). Many hearing protectors NRR range from 25 NRR to 33 NRR. As a general rule the effectiveness of the hearing protectors NRR is approximately 50% of the total NRR. If the hearing protectors you use have a 30 NRR then its effectiveness is 15 NRR. Simply put - if you're working in an environment with a 95 dB noise level and you're wearing hearing protectors of 30 NRR you're now being exposed to a room noise level of 80 dB.

The single use (disposable) earplugs constructed of polyurethene and PVC foam provide a good form of protection, which has a NRR ranges from 29 NRR to 33 NRR. The reusable foam earplugs have a NRR range from 17NRR to 27 NRR. Ear muff protection offers the NRR reduction from 16 NRR to 28 NRR. Ear muffs attached to the hard hat is over all the lowest NRR protection ranging from 15 NRR to 21 NRR

When ordering hearing protectors the NRR is the key to protecting your hearing, because the NRR must divided by 50% to determine they true effectiveness, then hearing protectors ordered should have a NRR of not less then 25 NRR for use in the motor room. The higher the NRR the better your hearing is protected.

For hearing protector to work the device must be properly installation and use. The user may need to try several types for effectiveness and comfort.

(i)(2) Hearing protector enforcement: The General Manager and engineer are responsible for enforcing the use of hearing protectors. Permanently assigned engineers and maintenance personnel are required to wear hearing protectors when entering the motor room. Visitors are required to wear hearing protectors when entering the motor room, except when the visitor spends a very brief time in the motor room. Workers must wear hearing protectors when operating lawn care equipment, power tools and while working around loud situations.

(i)(3) Hearing protector selection: Workers shall be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors at no cost to the worker. However, the hearing protectors must afford adequate NRR protection.

(i)(4) Training: The engineer is responsible for training in the use and care of all hearing protectors provided to workers.

(i)(5) Proper fit and use: The engineer shall ensure proper initial fitting and supervise the correct use of all hearing protectors. The ability of a hearing protection device to block noise depends largely upon the noise-blocking seal the user achieves when donning the device. That seal, in turn, is influenced by fit and comfort, as well as the ability to manipulate the device in the ear canal or position it on the head.

(k)(2) Training: Documented training will be conducted annually by the facility's engineer based on the format provided by the corporate loss prevention manager.

(k)(3): Training Information:

- **(i):** The effects of noise on hearing.
- **(ii):** The purpose of hearing protectors, the advantages, disadvantages, noise reduction rating of various types, and instructions on selection, fitting, use, and care.
- **(iii):** The purpose of the audiometric testing, and an explanation of the test procedures. The procedures are re-explained by the audiologist before the test.

(l) Access to Information and Training Material: All information pertaining to the Hearing Conservation Program must be made available to exposed workers. A copy of this program must be made available to the engineer and maintenance department.

(m) Recordkeeping:

* Worker's baseline audiometric test shall be kept in the employee's safety file.
* Worker's annual audiometric test records and data that compares the annual audiometric to the baseline shall be kept in the employee's safety file.
* The annual certification must be placed in the employee's safety file.
* The annual written exam must be placed in the employee's safety file.

Effects of Noise Exposure: While working in the motor room you must wear hearing protectors to protect your hearing. The main hazard of noise is hearing loss, which can be partial or total, temporary or permanent, depending on the type of exposure. Loss of hearing can impair a person's ability to hear important work instructions or safety warnings or misunderstand what is said. Symptoms of hearing loss include: noise or ringing in the ears, trouble hearing people when they speak, trouble hearing certain high or soft sounds, or needing a higher volume when listening to the TV or radio.

Personal life activities are also contributors to hearing loss and many of our workers are exposed to their loudest noise environment away from work. You should always wear hearing protectors when operating gas powered lawn equipment, power tools, playing in a band, shooting fire arms, riding dirt bikes, motor cycles and quad runners, while attending concerts, sporting events, etc.

Always protect your hearing with ear protection regardless if you're at work or play. Hearing loss is a natural part of aging so it's your responsibility to preserve your hearing whether at work or at play.

Foam plugs, made from expandable slow-recovery foam, **provide the best combination of comfort and protection** for most users. They must be properly prepared for insertion. One size fits most. Once in the ear, foam plugs expand to provide a snug and secure custom fit. The two most common complaints about foam plugs ("not enough protection," and "they don't stay in") are almost always solved by greater practice and care in insertion.

Slowly roll and compress foam plugs into a very thin crease-free cylinder. While compressed, insert plug well into the ear canal. Fitting is easier if you reach around the head to pull the ear outward and upward during insertion.

Keep the plugs clean and free from material that can irritate the ear canal. They may be washed in mild liquid detergent and warm water. Squeeze excess water from the plugs and allow to fully air dry. Washing may be repeated several times. Discard plugs if they noticeably change their firmness or do not re-expand to their original size and shape.

Premolded plugs are made from flexible materials that are preformed to fit the ear. They are generally available with a joining cord to prevent loss. Many premolded plugs are sold in two or more sizes and must be **individually sized for each ear**. If after a period of regular wear you've been unable to get used to your earplugs, try another size, type, or brand of hearing protector.

Reach around the back of your head and pull outward and upward on the ear while inserting the plug until you **feel it sealing**. This may seem tight at first, especially if you've never worn earplugs. Carefully twist the plug to break the seal for a slow, safe removal.

Premolded plugs will normally last several months or more depending upon the type, and environmental factors. They should be replaced if they shrink or swell, harden or soften, tear, crack, or become permanently deformed. Wash them in warm soapy water and rinse well. When dry, store them in a carrying case.

Semi-inserts, also called canal caps, consist of pods or flexible tips on a lightweight headband. Because they are quick to put on and take off and easy to store around the neck, they are **ideal for intermittent use**. Those that just cap the canal entrance give rise to a larger occlusion effect which can be annoying to some wearers.

Hold the large ends of the pods and swivel them to direct the tips into the ear canal openings. Firmly push and wiggle the pods into the canals **until a snug seal is obtained**. Pulling on the outer ear while pushing on the pods will be helpful to most wearers.

Most semi-inserts can be cleaned in the same way as premolded earplugs. Since the headband holds the tips in place to provide an acoustic seal, don't tamper with it or the protection the device provides may be reduced. Many manufacturers sell replacement tips.

Earmuffs have rigid cups with soft plastic cushions that seal around the ears to block noise. Muffs come in one-position or multi-position bands, and are also sold in styles for attachment to hard hats. Cushions may be filled with foam, liquid, or a combination; let personal preference be your guide. For sustained exposures to very loud noises, or if you feel the need for more protection, wear muffs and plugs together **(dual protection)** for an additional 5-10 dB of noise reduction.

Muffs must **fully enclose the ears to seal against the head**. Adjust the headband so cushions exert even pressure around the ears to get the best noise reduction. Pull hair back and out from beneath the cushions. Don't store pencils or wear caps under cushions. Thick or poorly fitting eyeglass temples may also cause some loss in noise reduction.

Cushions can be cleaned with warm soapy water and rinsed thoroughly. Do not use alcohol or solvents. Cushions normally need replacing at least yearly, or whenever they become stiff, cracked, or no longer seal. Don't modify earmuffs in any way, and especially do not stretch or abuse the headbands as this will reduce your protection.

For complete OSHA requirements pertaining to Occupational Noise Exposure see the OSHA's web site at www.osha.gov –click on standards – click on general industry – click on 1910.95 for all requirements of Hearing Conservation.

Hearing Conservation Program (HCP)
Initial Test

Instructions: Circle the correct answer. All exposed workers must complete this test and a copy shall be kept in the employees' safety file.

1) Are hearing protectors required to be worn inside the engine room? T or F

2) Engineers are responsible for conducting HCP training for all exposed workers? T or F

3) Engineers and maintenance staff exposed to the engine room must receive annual audiograms? T or F

4) All exposed employees must have their annual audiogram compared to their baseline audiogram to determine any Standard threshold shifts? T or F

5) Audiometric testing shall be performed by a licensed or certified audiologist? T or F

6) To establish an accurate audiogram, involved workers shall not be exposed to loud workplace noises within 14 hours before hearing test. Hearing protector may be used as a substitute for the 14-hour requirement. T or F

7) Follow-up procedures are required for any person experiencing a standard threshold shift? T or F

8) All new employees and/or transferred employees to the engineering and maintenance departments and with exposure to the motor room must have a baseline hearing test conducted within 6 months of employment or being transferred? T or F

9) It is required to give exposed workers the opportunity to select their hearing protectors from a variety of suitable hearing protectors at no cost to the worker? T or F

10) It is the exposed workers responsibility to understand and adhere to the HCP Policies and Procedures. T or F

11) Hearing protectors have a Noise Reduction Rating (NRR) T or F

12) To determine the actual effectiveness of the published NRR is by dividing the published NRR by 50% for the effectiveness rating. T or F

Signature: _____ Date: _____

HEARING CONSERVATION PROGRAM

ANNUAL TRAINING CERTIFICATION

I have been informed of the following information regarding Millard's Hearing Conservation Program (HCP). This document must be place in the employees' safety file:

A. The main hazard of noise is hearing loss, which can be partial or total, temporary or permanent, depending on the type of exposure. Loss of hearing can impair a person's ability to hear important work instructions or safety warnings or misunderstand what is said. Symptoms of hearing loss include: noise or ringing in the ears, trouble hearing people when they speak, trouble hearing certain high or soft sounds, or needing a higher volume when listening to the TV or radio.

B. The purpose of hearing protectors is to prevent hearing loss due to exposure to high levels of noise. If the level of noise is above 85db's on an 8-hour time-weighted average, the use of hearing protection is required by OSHA. Millard requires the use of hearing protection for all employees who work in the motor room. I have been explained the advantages and disadvantages of the various types of ear protection that I may choose from. I have also been explained what a Noise Reduction Rating (NRR) is and how it is different for various types of hearing protection. I have been instructed how to select, fit, use and care for my hearing protection.

C. The purpose of audiometric testing is to provide a record of my baseline hearing level and to see if it changes from year to year. If it does, I will be notified by Millard and retrained on the use of hearing protection and possibly fitted with hearing protection with a higher NRR.

_____ _____

Employee Date