



Lusail Real Estate Development Company

Health, Safety, Security, Environment, Logistics & Quality Department

Lusail Construction Safety Procedural Forms/Checklists – Sample Hearing Conservation Plan

Document No LUS-HSE-FM4-446-016.01 Rev 1
Uncontrolled Copy Controlled Copy Date 01-Apr-2015

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Sample Hearing Conservation Plan

Project: _____

Project Location: _____

Project Start Date: _____

1. Introduction

1. Lusail policy is to provide employees with a safe and healthful working environment. This is accomplished by using facilities and equipment that have all feasible safeguards incorporated into their design. When effective engineering controls are not feasible, or when they are being initiated, administrative controls are used where possible, followed by personal protective equipment (PPE).
2. The primary goal of the Lusail Hearing Conservation Plan is to reduce or eliminate the risk of noise-induced hearing loss.
3. To be successful, the purpose and operating details of the Hearing Conservation Plan must be understood by both management and employees.
4. This Hearing Conservation Plan consists of the following elements:
 - a. Noise exposure is measured and analyzed.
 - b. Where feasible, environments with hazardous noise or equipment that produces hazardous noise is modified to reduce the noise level to acceptable levels.
 - c. Where engineering controls are not feasible, administrative controls and/or hearing protective devices are used.
 - d. Employees are trained in the hazards of noise and the proper use of hearing protection.
 - e. Hearing acuity is measured (audiometric testing).
5. Several benefits are anticipated with the implementation of the Hearing Conservation Plan:
 - a. Prevention of employee hearing loss from noise exposure.
 - b. Overall improvement of the Lusail Construction Safety Management Program.
 - c. Improvement of employer-employee relations by establishing regular lines of communications.
 - d. Avoidance of regulatory violations, citations, and related problems.

- e. Reduction in hearing loss related workers' compensation claims.

2. Responsibilities

1. The Project Manager is responsible for reviewing, approving, implementing, and enforcing the Project Hearing Conservation Plan.
2. Upon request, a copy of this written Hearing Conservation Plan is available to employees or their designated representatives.
3. Copies of this Hearing Conservation Plan are available by contacting the HSE Representative.
4. Employees cannot perform duties with excessive noise levels¹ until the following requirements are met:
 - a. The employee is properly trained on hearing exposure protection devices.
 - b. Proper PPE has been selected and issued to the employee.
 - c. Employees who do not meet these requirements will have their duties restructured to reduce any occupational exposure until the requirements are met.
5. The written plan is reviewed every year for accuracy and completeness.
6. The written plan and its elements will be updated in the following situations:
 - a. When new noise exposures are introduced.
 - b. When new methods of prevention are introduced.
 - c. When program job duties are changed.
 - d. When any other relevant elements are changed.
7. The Project Manager is responsible for developing, implementing, and administering Lusail Hearing Conservation Plan. Additional responsibilities (together with the HSE Representative), include:
 - a. Identification of work areas and equipment within the project site where noise levels equal or exceed 85 dBA.
 - b. Identification, through personal monitoring of personnel whose noise exposure level equals or exceeds an 8-hour TWA of 85 dBA. Notifications of employee exposure measurements are filed with the HSE Representative.
 - c. Noise surveys and/or noise dosimetry to determine which areas require warning signs.
 - d. Annual remonitoring of identified at-risk employees.

¹The term “excessive noise levels” throughout this document means “any exposure equal or exceeding an 8-hour TWA sound level of 85 decibels (dBA), measured on the A scale, slow weighted; or any impulsive or impact noise measured at or above 140 dB peak using an impulse sound level meter set to either the linear or C-scale.”

- e. Resurvey of work areas and equipment where noise levels exceed 85 dBA, as needed.
 - f. Employee training on proper use and care of hearing protection devices.
 - g. Identification of noise control measures (including engineering and administrative controls) and recommendations.
8. A third-party audiometric testing agency conducts baseline and annual audiograms for employees in designated job functions. This agency also provides annual audiograms for employees exposed to sound levels greater than or equal to 85 dBA. This third-party audiometric testing agency notifies the HSE Representative of all employees who have experienced significant changes in hearing (standard threshold shifts) acuity so that follow-up investigations may be conducted. The agency also notifies the affected employees and their supervisors.
 9. Supervisors are responsible for ensuring that all of their employees who are exposed to excessive levels of noise have access to appropriate hearing protection for the work area and that they participate in the Hearing Conservation Plan. Supervisors must enforce the proper use of hearing protection in designated areas. The supervisor and HSE Representative must determine if engineering and administrative controls can be used in designated noise hazardous areas to reduce employee exposure.
 10. All employees must be knowledgeable of noise hazards and hearing protection requirements. They must participate in annual training programs and the medical surveillance program and must use the appropriate hearing protection according to training.

3. Noise Assessment Procedures

1. For the Project Manager to effectively manage noise abatement, noise be accurately measured in accordance with OSHA standard procedures. Noise measurements must be evaluated against accepted criteria.
2. The HSE Representative, in conjunction with Supervisors, identifies areas within work environments where noise levels equal or exceed 85 dBA. The HSE Representative maintains records in order to update pending alterations in noise levels.
3. Signs must be posted at the entrance to any work area where noise levels exceed 85 dBA, requiring anyone entering the area to wear proper hearing protection. Employees working in these areas are issued hearing protection are instructed in its proper use and are required to wear this equipment in these identified areas. Signs are also placed on equipment that creates noise exceeding 85 dBA, requiring equipment operators and exposed employees to wear proper hearing protection.
4. Employees are monitored for noise exposure through personal and area monitoring. The HSE Representative is responsible for ensuring that noise monitoring is conducted properly.
 - a. In an area survey, measurements of environmental noise levels are recorded using a sound level meter to identify work areas where employees' exposures

may be above hazardous levels and where more thorough exposure monitoring may be needed. Area monitoring is conducted using a calibrated sound level meter set to the A scale with a slow response. Typical measurement locations would include:

- (1) Normal work areas
 - (2) Areas next to noise-producing equipment or other noise sources
 - (3) At the entrance(s) to the work area
 - (4) At facilities and/or locations where employees may spend time working
- b. Personal monitoring is accomplished using calibrated noise dosimeters and is typically performed over the entire work shift. Employees whose noise exposure meets or exceeds an 85 dBA TWA are included in the Hearing Conservation Plan. Employees with similar exposure potential are also included in the Plan.
5. Monitoring is repeated when a change in production, process, equipment, or controls increases noise exposures such that additional employees may be exposed to excessive levels of noise.

4. Noise Control Methods

1. The primary purpose of noise control is to reduce or eliminate employee exposure to hazardous noises through engineering controls. Engineering controls are modifications or replacement of equipment to reduce the noise level and ultimately reduce employee exposure. If engineering solutions cannot reduce the noise, then administrative controls such as the rotation of jobs between workers in the high noise area will be used, if possible. The use of engineering and administrative controls helps reduce noise exposure to a less hazardous and more manageable working environment.
2. Hearing protective devices are used only when engineering and administrative controls are not feasible. Supervisors ensure that hearing protectors are worn by any employee who is exposed to an 8-hour TWA of 85 dBA or greater and by any employee who is exposed to any impulsive or impact noise measured at or above 140-dB peak using an impulse sound level meter set to either the linear or C-scale.
3. Hearing protective devices include earplugs (premolded, formable, and custom) and earmuffs. Employees will be given the opportunity to select from a variety of suitable hearing protective devices. Instructions on the proper use and care of hearing protection are provided and available to employees at all times.
4. Hearing protective devices will have a noise reduction rating (NRR) high enough to attenuate (reduce) the employee's noise exposure to 85 dBA or lower. Dual hearing protection (earplugs and earmuffs) may be required in order to achieve this attenuation. Note: the attenuation provided from any combination of earplug and earmuff is not equal to the sum of their individual attenuation values. Refer to the OSHA Occupational Noise Exposure Standard (29 CFR 1910.95) for guidance.

5. **Audiometric Testing**

1. The third-party audiometric testing agency administers the audiometric testing program portion of the Hearing Conservation Plan. The audiometric testing program identifies workers who are beginning to lose their hearing and intervenes before the hearing loss becomes worse. The HSE Representative has audiometric testing performed on all employees in designated job functions. New employees are tested in order to establish baselines at time of hire. If an employee changes job classifications, the employee must be tested at the next annual scheduled audiometric testing. The testing allows the HSE Representative to document the employees hearing at the time of position change. Supervisors notify the HSE Representative of employee transfers.
2. **Baseline audiograms:** Prior to or within 180 days after a new permanent employee's first exposure to noise at or above a TWA of 85 dBA, the HSE Representative ensures that a baseline audiogram is conducted. All personnel should receive baseline audiograms upon hire. In addition, employees who participate in the Hearing Conservation Plan are trained, provided suitable hearing protectors, and tested within 1 year of hire by the third-party audiometric testing agency.
3. **Annual audiograms:** Every 12 months after obtaining the baseline audiogram, the HSE Representative obtains a new audiogram for each employee in the Hearing Conservation Plan. The third-party audiometric testing agency compares the annual audiogram to the employee's baseline audiogram to determine if a threshold shift has occurred. A certified audiometric technician performs the test, and an audiologist reviews the results.

6. **Training**

1. Training is provided to employees included in the Hearing Conservation Plan to ensure that they are aware of adverse effects of noise and of how to prevent noise-induced hearing loss. The HSE Representative coordinates the training.
2. At a minimum, the training covers the following topics:
 - a. Noise-induced hearing loss (the effects of noise on hearing)
 - b. Recognizing hazardous noise
 - c. Symptoms of overexposure to hazardous noise
 - d. Hearing protection devices (the purpose of hearing protectors and their advantages and limitations)
 - e. Selection, fitting, use, and maintenance of hearing protection devices
 - f. Purpose of audiometric testing and explanation of the test procedures
 - g. Hearing Conservation Plan requirements
 - h. Employee rights to access records

7. Recordkeeping

1. The Supervisor must identify all personnel who routinely work in excessive noise areas and the Contractor HSE Department must maintain and systematically update the files for such employees.
2. The administrative/training manager documents all Hearing Conservation Plan instruction, training, and retraining records.
3. The Lusail HSE Representative maintains and keeps confidential the noise monitoring and audiometric testing records at the site for the duration of the project and archives the records at project close.

8. Program Evaluation

1. The HSE Representative periodically evaluates the Hearing Conservation Plan to assess compliance with Qatar Labor Laws and the LCSMP. Both the monitoring and audiometric testing portions of the Plan are reviewed to ensure its quality and effectiveness.
2. The evaluation consists of the following tasks:
 - a. Review of appropriate standard operating procedures
 - b. Maintaining training records and developing course content for supervisors and employees
 - c. Maintenance of hearing protection devices
 - d. Audits of hearing protection devices
 - e. Review of recorded threshold shifts
3. The HSE Representative modifies the hearing conservation plan, as required, to ensure that it meets its primary purpose of reducing or eliminating the risk of noise-induced hearing loss.