



Lusail Real Estate Development Company

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

Lusail Construction Safety Procedural Forms/Checklists –Respiratory Protective Equipment Care Guidelines

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Respiratory Protective Equipment Care Guidelines

This outline is helpful for organizing, presenting and maintaining an effective respiratory protection training program. All employees assigned to respirator use are to be given instruction on:

- ◆ Designed purpose of the program/need for protection
- ◆ Hazard assessment and control
- ◆ Written operating procedures
- ◆ Types, selection methods and limitations
- ◆ Procedures for issuance and use –donning/removal, normal/emergency
- ◆ Facepiece fit check procedures
- ◆ Facepiece fit testing procedures
- ◆ Inspection, maintenance and repair
- ◆ Cleaning, sanitizing and storage
- ◆ Medical and program surveillance
- ◆ Opportunity to wear respiratory equipment in normal air for an adequate familiarity period, and to wear it in a test atmosphere

RESPIRATOR INSPECTION

Respiratory Protective Equipment (RPE) must be regularly inspected for defects and any needed repair made before it is put back into service. Repair work is done only by personnel specially trained in respirator repair, or by the manufacturer.

- a) All respirators must be inspected before each use, after each use, and during cleaning and sanitizing. In addition, any emergency respirator should also be inspected at least monthly and a written record of inspection maintained directly on it or its container. **Any deficiencies observed must be brought to the attention of the HSE Representative.**
- b) Proper inspection of RPE ensures that respirators are being well maintained, which eliminates the potential for exposure. Employees issued respirators are to examine them carefully and make certain that parts found defective are repaired prior to using the respirator. Though not all respirators have these parts, the following list is a general guide for items to evaluate during regular inspections:
 - ◆ condition of facepiece
 - ◆ condition of straps
 - ◆ condition of valves
 - ◆ condition of filter elements
 - ◆ condition of cartridges
 - ◆ condition of air hose
 - ◆ condition of hose/ breathing tube clamps
 - ◆ condition and type of air hose connectors
 - ◆ condition of breathing tubes
 - ◆ condition of regulators

- ◆ condition of protection lens
 - ◆ compatibility of all components
 - ◆ respirator appropriateness for work
 - ◆ respirator clean and sanitized
 - ◆ need for maintenance and repair
 - ◆ whether records are being kept
- c) Respirators that do not pass inspections must be removed from service immediately. Repair of the respirator by the user is limited to changing canisters, cartridges, filters, and head straps. All other replacements or repairs are performed by a Manufacturer's Representative, who is qualified and experienced in making technical repairs. No attempt will be made to replace components, or make adjustments, modifications or repairs beyond the manufacturer's recommendations.

RESPIRATOR MAINTENANCE

Respirator maintenance is very important to effectively ensure proper protection, prolonged life of the respirator, and prevention of secondary problems such as dermatitis.

Cleaning & Sanitizing

Contractors shall ensure that the means and materials for cleaning and sanitizing RPE are provided. Depending on the relationship with the customer, customer facilities and materials may be used. The Contractor HSE Department is responsible for establishing a program for the cleaning and sanitizing of respiratory equipment on each job site. Each type of RPE has its own cleaning instructions. These instructions must be followed closely to preserve the equipment and maintain its protection qualities. Some general guidelines apply to all equipment:

- a) All RPE, including emergency equipment, shall be cleaned and sanitized after each use.
- b) ASR equipment shall not be passed from one person to another until it has been cleaned and sanitized. Employees will not share APR's as employee will be issued an APR.
- c) For RPE permanently issued to employees, they will be provided with instructions for proper cleaning and sanitizing. An employee is qualified to perform cleaning when they have received training in cleaning and sanitizing the equipment.
- d) In the absence of more detailed cleaning instructions, the following procedures are to be used for cleaning respirators:
 1. Disassemble respirator, removing cartridges, filters, and air lines.
 2. Rinse facepiece in warm water to remove loose dirt and any other foreign particles.
 3. Carefully wash facepiece in basin using a warm solution of mild household detergent. A soft nylon or natural bristle brush may be used to scrub heavily soiled areas. Use caution as not to scratch the facepiece lens.
 4. Thoroughly rinse in warm clean water. Residual soap and sanitizing agents may contribute to development of dermatitis.
 5. Permit respirator to air dry.

6. Inspect inhalation and exhalation valves and seats to be sure they are clean, smooth, and free of grit or other foreign particles.
7. Immerse facepiece for two minutes in a household bleach solution that is mixed with one tablespoon of bleach to every one gallon of water.
8. Hang facepiece up to dry, keeping it sheltered from dust. Warmed, forced air may be used to speed up the process, as long as the air temperature does not exceed 49°C (120° F).
9. Once dry, reassemble respirator and store respirator in a sealed container to prevent distortion, as well as contamination by dusts, mists, fumes, gases, vapors and liquids, excessive heat and sunlight.

Respirator Sanitizing Solution

In addition to purchasing the commercial sanitizing solutions that are offered by many manufacturers, other solutions can be prepared and used on site to effectively sanitize most RPE. Prior to their use, however, compatibility of these sanitizing agents should first be acknowledged by the respirator manufacturer:

- ◆ 200 ppm quaternary ammonium CMP
- ◆ 100 ppm hypochlorite solution
- ◆ 25 ppm aqueous iodine solution
- ◆ 100 ppm chlorine solution

Always check the product literature or contact the manufacturer to determine what cleaning and sanitizing materials are compatible with the respirator.

REPAIR

Improper repair of RPE may cause it to become ineffective, or cause malfunctions dangerous to the health and safety of the employees.

1. Only personnel who are qualified by specific training may repair respirators.
2. Parts from different respirators must not be interchanged.
3. Self-contained breathing apparatus, and airline respirator mechanical parts such as valves, hoses and regulators, must be returned to the manufacturer or authorized service center for repair or replacement.

STORAGE

When not in use, RPE will be stored in a way that will protect it against dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals. It should be kept in its supplied storage container, whenever practical. A record of inspections conducted on all respirators shall be maintained by the HSE Department.