

Shop: _____
Bldg.# _____

Activity Name

Supervisor Sign

RPPM Sign

Date Posted

**STANDARD OPERATING PROCEDURE (SOP)
FOR RESPIRATORS**

References: (a) MCO 5100.8F
(b) OPNAVINST 5100.23E
(c) 29 CFR 1910.134

1. OBJECTIVE: In order to control occupational illnesses caused by breathing air contaminated with harmful dusts, fog, mists, gases, smoke, sprays or vapors when effective engineering controls are not feasible or while they are being instituted to prevent atmospheric contaminants, appropriate respiratory protective equipment shall be used, in pursuant to references (a) thru (c).

2. RESPIRATORY PROTECTION USED BY THIS SHOP:

a. The following operation(s) require(s) the use of respiratory protection due to the potential hazards involved:

Operation	Hazard(s)	Respiratory Protection Required

b. Confined Space: For operations involving any confined spaces please contact the Industrial Hygiene Department at 643-7617.

c. Others: For operations that are not listed above please consult with your Industrial Hygienist or Respiratory Protection Program Manager (RPPM) prior to performing the job.

3. PROGRAM REQUIREMENTS:

a. Qualifications: Only personnel authorized by the RPPM shall be allowed to use respirators. Prior to assignment to a job that requires a respirator, the employee must have completed the

following:

(1) Medical Evaluation by U.S. Naval Hospital, Okinawa (Occupational Medicine Department). Personnel assigned to tasks requiring the use of respirators shall have received the appropriate medical evaluation to determine that they are physically fit and able to perform their work assignment while wearing a respirator. This evaluation shall be repeated periodically.

(2) Respirator Protection Training in accordance with reference (a) and (b). This training shall be repeated annually.

(3) Fit-tested in a test environment. This fit-test must be repeated annually.

Note: The training and fit testing will normally be provided by the Activity RPPM.

b. Basis for Selection:

(1) Respirators shall be selected on the basis of the hazards to which the personnel are exposed. The type of respirator to be used shall be in accordance with reference (a) or as recommended by the RPPM or cognizant Industrial Hygienist.

(2) Respirators shall be assigned to individual workers for their exclusive use. OR Respirators will be maintained at a central respirator maintenance facility.

c. Inspection and Maintenance:

(1) All respirators will be inspected before each use.

(2) All respirators will be inspected during each cleaning and reassembly.

(3) All respirators will be placed in a proper storage bag (zip-lock) after each cleaning.

Note: See attachment (1) for inspection guidelines.

d. Central Issue/Storage/Cleaning: The RPPM will initially issue the respirators. The RPPM will also maintain replacements and re-order respirators as needed. Because of the small number of personnel and the nature of use, personnel in this shop are issued respirators for personal use. Each user is responsible for care, cleaning and inspection of their respirator. See attachment (2) for cleaning instructions.

4. GENERAL USE PROCEDURES:

a. Only respiratory protective equipment authorized by the Program Manager shall be used.

b. Respirators shall be used as issued. No modifications or substitutions to equipment are permitted.

c. Respirators shall be used only by the person to whom they are issued.

d. Respirators with tight-fitting face-pieces shall not be worn by individuals with interfering facial hair.

e. Respirators shall be inspected by the user before donning.

f. A respirator fit-check must be performed each time a respirator is donned. Refer to attachment (3) for fit-check procedures.

g. If, while using respiratory protection, odor from the work process is detected, difficulty in breathing is encountered or other leakage is suspected, the user shall leave the area without delay. Re-entry shall not be permitted until the problem has been solved by replacing cartridges, restoring air flow, or by other means, as necessary.

h. When respirators are temporarily removed during breaks in work operations, removal shall be done away from the work area in order to prevent personnel exposure and to keep the inside of the respirator face-piece clean. Respirator shall be protected from contamination prior to re-donning.

i. Respirators shall be returned to the central maintenance facility of their department after each use.

5. PERSONNEL AUTHORIZED TO WEAR RESPIRATORS: Having met all the requirements of this program, the following personnel are authorized to wear the respirators listed in this table.

Name	Medical Evaluation Due	Respirator Training Due Date	Date Fit-Test Due	Respirator (make, model, size)

RESPIRATOR INSPECTION

1. Air Purifying Respirators

a. Examine the facepiece for:

- Excessive dirt.
- Cracks, tears, holes, inflexibility or physical distortion of shape from improper storage. Stretch elastomeric facepiece material to help identify defects and restore flexibility.
- Cracked or badly scratched lenses in full facepieces.
- Incorrectly mounted full facepiece lenses, or broken or missing mounting clips.
- Cracked or broken air-purifying element holder(s), badly worn threads or missing gasket(s) if required.
- Presence and integrity of speaking diaphragm where required.

b. Examine the head straps or head harness for:

- Presence of correct strap assembly (removal of one strap or substitutions such as shoelaces not permitted).
- Breaks.
- Loss of elasticity or overstretching.
- Broken or malfunctioning buckles and adjusters.
- Excessively worn serrations on head harness, which might permit slippage (full facepiece only).

c. Examine the inhalation and exhalation valves for the following:

- Foreign material, such as detergent residue, dust particles or human hair under the valve.
- Cracks, tears or distortion in the valve material.
- Improper insertion of the valve seat in the facepiece.
- Cracks, breaks, or chips in the valve seat, particularly in the sealing surface.
- Missing or damaged exhalation valve cover.
- Improper installation of the valve in the valve seat.

d. Examine the air-purifying element for:

- Manufacturer (must be same as manufacturer of facepiece).

- Correct cartridge or filter for the hazard.
- Incorrect installation, loose connections, missing or worn gasket or cross threading in the holder.
- Detergent residue or other foreign material under gasket.
- Expired shelf-life date on canister.
- Cracks or dents in the outside case of the filter or cartridge, indicated by the absence of sealing material, tape, foil, etc, over the inlet.

e. If the device has a corrugated breathing tube, examine it for:

- Broken or missing end connectors.
- Missing, loose or damaged hose clamps.
- Deterioration, determined by stretching the tube and looking for cracks.
- Presence of gaskets in end connections where required.

2. Powered Air Purifying Respirators

a. Facepiece type:

- Inspect as in Item 1, above.
- Check condition of battery pack, wires and connections.
- Check air flow following manufacturer's instructions.

b. Hood or helmet type:

- Examine the hood and its shroud(s) for rips, tears, and seam integrity.
- Examine the protective headgear, if present, for general condition with emphasis on the suspension inside the headgear.
- Examine the protective face shield, if any, for cracks or breaks or impaired vision.
- Make sure the protective screen is intact and secured correctly over the faceshield of abrasive blasting hoods.
- Inspect air purifying elements and corrugated breathing tubes.
- Check condition of battery pack, wires, and connections.
- Check air flow following manufacturer's instructions.

3. Type C Supplied Air Respirators

a. Inspect facepiece, hood, or helmet using procedures outlined in Items 1 and 2.

b. Examine the air supply system for:

- Integrity and good condition of air supply lines and hoses, including attachment and end fittings.
- Correct operation and condition of regulators or other air flow controls as indicated on approval label.
- Air quality.

4. Type C Supplied Air Respirator/SCBA

a. Inspect the Tupe C portion as described above.

b. Inspect the high pressure cylinder for physical damage, full charge, and current hydrostatic test date.

RESPIRATOR CLEANING INSTRUCTIONS

1. Disassemble respirator, removing any filters, canisters, or cartridges. Discard all used cartridges and filters.
2. Wash the facepiece and associated parts with mild detergent in warm water. Do not use organic solvents.
3. Rinse completely in clean warm water.
4. Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs.
5. Air dry in a clean uncontaminated area in such a way as to prevent distortion of the facepiece. (Do not hang to dry.)
6. Reassemble and reinspect the respirator and replace any defective parts.
7. Place in a clean dry plastic bag or other air tight container and seal. Zip-lock bags are preferred. Ensure the respirator is completely dry before sealing to prevent mildew.
8. Store flat in a clean, dry, uncontaminated area without crowding which may distort the respirator facepiece.

Notes:

1. Personnel shall not service/repair any respirators for which they have not been specifically trained.
2. No work shall be performed on reducing valves, regulators or alarms of atmosphere-supplying respirators (e.g., air-line respirators and SCBAs). These items shall be returned to the manufacturer for all repairs and adjustments.

FACEPIECE FIT CHECKS

Each time the respirator is donned, personnel must conduct the following positive and negative fit checks:

1. Positive pressure check. Close off the exhalation valve and exhale gently into the facepiece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece without any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

2. Negative pressure check. Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the facepiece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove. If the facepiece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

3. Manufacturer's Recommended User Seal Check Procedures. The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided that the employer demonstrates that the manufacturer's procedures are equally effective.