

**BY ORDER OF THE COMMANDER,  
HEADQUARTERS, 11TH WING**



**BOLLING AIR FORCE BASE  
INSTRUCTION 48-1**

**19 APRIL 2001**

**Aerospace Medicine**

**RESPIRATORY PROTECTION PROGRAM**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFOSH Std 48-137, Respiratory Protection Program and it defines organizational, supervisory, and individual responsibilities. It also establishes procedures for proper issue, use, storage, and cleaning of respirators. It is applicable to all assigned and attached units and personnel who require respiratory protection equipment from this unit.

**SUMMARY OF REVISIONS**

This instruction further streamlines the respirator selection, issue, and usage on Bolling AFB. It also reflects the new changes to AFI 48-137 regarding painting with polyurethane paints. New guidance regarding the wear of contact lenses with respirators is also incorporated into this instruction.

**1. General Information:**

- 1.1. This instruction provides local guidelines required to conduct an acceptable base-level respiratory protection program. The Air Force guide for mandatory protection is AFOSH Std 48-137.
- 1.2. Commanders, Staff Agency Chiefs, supervisors and workers must work together to ensure correct steps are followed to issue, clean, use, and store respirators. Personnel must be trained in the use of each type of respirator required.
- 1.3. The 11th Medical Group's Bioenvironmental Engineering Services (BES) has sole authority, beyond published Technical Orders, in determining whether respiratory protection is required or recommended to prevent the worker from being exposed to toxic levels of materials. Workers who have been required or recommended by BES to wear respirators will be enrolled in the base Respiratory Protection Program. BES will select the type of respirator required based on a hazard evaluation. Only respirators approved by the National Institute for Occupational Safety and Health (NIOSH) will be authorized. For emergencies, BES personnel can be reached after duty hours through 11 WG/CCP (Command Post) or the 11th Medical Group's Acute Care Desk.

1.4. Respirators will be ordered through 11th Supply Squadron/LGSS by required workplaces after BES specifies the type of respirator. Each person must have his or her own respirator for those jobs that regularly require such protection. Workers may share a common-use respirator when it is used for emergency rescue, spill cleanups, short-term on-the-job training orientation, or when respirators are used less than once a week non-routinely.

1.5. Air Force employees in Air Force workplaces will wear no elective, voluntary use or privately procured respirators. Respirators will either be required according to applicable directives or recommended (after evaluation) by BES. However, filtering face piece devices may be worn at the discretion of an Air Force employee, strictly for comfort purposes. Workers who choose to wear filtering face piece devices will not be placed on the base Respiratory Protection Program. BES does not consider filtering face pieces respirators, and they are defined as the type of respirator which has a face piece made entirely of filtering or absorbing material. These do not have changeable filters or cartridges and are usually disposable. They do not have an inhalation valve and may or may not have an exhalation valve. Personnel who choose to wear filtering face piece devices must receive initial and updated training from their supervisors as outlined in AFI 32-2001, to explain the limitations of these devices.

1.6. There is one exception to this policy for filtering face pieces. Those workers in medical specialties, who have been evaluated by BES as having a significant risk of exposure to tuberculosis during the performance of medical duties, will be enrolled in the Respiratory Protection Program.

## **2. Requirements of Respiratory Protection Program (RPP):**

2.1. Each worker on the RPP must be medically cleared for respirator use before a respirator may be worn. Medical examination requirements, as determined by the 11th MDG Aeromedical Council, will ensure the worker can safely use respiratory equipment. The 11th MDG Physical Exams office will schedule medical examinations.

2.2. When examinations are passed, each worker must be fitted with a respirator and trained before starting to work on a job that requires the respirator to be worn. BES will accomplish annual fit testing and training, but more frequent fit testing for some workers may be accomplished.

2.3. Each worker must receive initial and annual education from BES on the respiratory protection program, use of respiratory protection equipment, and all workplace hazards.

2.4. All duty sections that are on the respiratory protection program shall establish a work place operating instruction (OI) on respiratory protection, which will be approved by BES. A sample Operating Instruction is available in AFOSH Standard 48-137.

2.5. The Naval District of Washington (NDW) Fire Department will provide training on the use and maintenance of self-contained breathing apparatus (SCBA). BES will provide fit testing for workers who require the use of a SCBA.

2.6. Only soft and gas permeable contact lenses are permitted to be worn while performing any duties requiring the use of a respirator.

2.7. The only type of respirator an individual with facial hair shall be permitted to wear is a supplied-air, positive pressure type or a powered air-purifying respirator with a hood or shroud. The respirator shall be operated in the continuous flow mode, shall not have a tight-fitting face piece, and

shall not have an anti-aspiration device that contacts the face or neck. The unit commander, director, or functional manager will decide if such a respirator will be purchased for bearded workers.

2.8. If the worker is using polyurethane paint with an isocyanate (monomer or prepolymer), the following is required unless otherwise approved by BES.

2.8.1. Use a supplied air respirator for spray painting or touch-up with polyurethane paints indoors. When spray painting in an open area, such as a hangar, all unprotected personnel shall be removed.

2.8.2. Use a full-face piece air-purifying respirator with organic vapor cartridges and high efficiency particulate air (HEPA) filters when painting with polyurethane paints ONLY when the painting is performed outside for touch-up or stenciling in small increments. If outside spray painting exceeds touch-up or stenciling quantities, the worker shall wear a supplied air respirator.

2.8.3. Use a full-face piece, air-purifying respirator with organic vapor cartridges and HEPA filters when performing roll-on or brush painting applications regardless of the painting location.

2.8.4. Touch-up painting normally does not exceed five minutes of spray time per hour. Aircraft touch-up operations are defined in T.O. 42A-1-1, paragraph 3-1c.

2.9. Emergency Escape: Some workplaces that use or store very toxic materials may have emergency escape respirators to protect personnel during egress from an accidental release. These respirators shall be hood-type respirators or the equivalent that do not require fit testing. Medical exams or fit testing are not required for the personnel that would use these emergency respirators, and workers will not be enrolled onto the RPP. However, the supervisor should ensure that all-potential users are trained in the use of these respirators.

2.10. Air National Guard and Air Reserve: Air National Guardsmen and Air Force Reservists who perform training at Bolling AFB may have duties that require respiratory protection, as determined by BES. These personnel shall be entered into the base RPP and be initially and annually trained and fit-tested by BES. Medical exams are required first, and may be provided by the member's unit if approved by the 11th MDG Aeromedical Council.

### **3. Responsibilities:**

3.1. 11th MDG Bioenvironmental Engineering Services (BES) will:

3.1.1. Identify and evaluate work areas for substances present that may require respiratory protection to be used. Select the type of respirator required, such as airline, full-face, half-face, or emergency type. Evaluate use of respirators based on actual or calculated air contaminant concentrations. Review and approve Operating Instructions on the use and maintenance of respirators. Check on the use of respirators in the actual work setting during routine surveys.

3.1.2. Do initial and annual fit-testing and training of each worker on the use and maintenance of the respirator. This training is required by AFOSH Standard 48-137 and will cover the topics that apply to each work section or task. Document the training on the AF Form 2767, Occupational Health Training and Protective Equipment Fit Testing Record, maintained in the industrial case file for the appropriate workplace. Give an AF Form 2772, Certificate of Respirator Fit Test, to each worker that satisfactorily completes fit testing and is trained to use respirators. The wearer will maintain this with his/her AF Form 55, Employee Safety and Health Record.

- 3.1.3. Conduct fit-testing for all users of SCBAs in coordination with the Fire Department.
- 3.1.4. Coordinate with supply on controlling the issue of all respirators and components.
- 3.2. 11th MDG Aerospace Medicine Flight, under the auspices of the 11th MDG Aeromedical Council, ensures a physician makes the determination that a worker is physically able to wear a respirator using an approved medical surveillance protocol for respirator users.
- 3.3. 11th MDG Public Health Element (PH) will ensure all respirator users have been identified to receive baseline and annual physical examinations.
- 3.4. 11th MDG Physical Exams office (PES) will schedule and perform medical surveillance of respirator users required by this regulation and applicable federal standards.
- 3.5. 11th WG/SEG (Ground Safety) will refer any suspected problems on respirator usage discovered during their inspections to BES.
- 3.6. NDW Fire Department will:
  - 3.6.1. Conduct respiratory protection training for fire protection personnel IAW AFI 32-2001 (or an equivalent Navy Regulation), and for other Air Force organizations on Bolling AFB using SCBAs as needed.
  - 3.6.2. Ensure required maintenance for SCBAs is performed by the respirator manufacturer or appointed individual(s) trained and certified by the manufacturer to conduct such maintenance.
  - 3.6.3. Forward to BES copies of sampling results of any supplied breathing air tests no later than two weeks after receipt of results.
- 3.7. Supervisors of workers that require respiratory protection (see paragraph 1.6. for exception) will:
  - 3.7.1. Comply with AFOSH Std 48-137, and have a reference copy in each work area where respirator use is required.
  - 3.7.2. Write and use a workplace operating instruction (OI) for each area that requires respirators. The instruction must be detailed and clearly written so all employees can understand. It must have descriptions of the job(s) that require respirators; the cleaning, maintenance, and storage of respirators; and individual responsibilities for use, handling, testing, and wear of the respirator in accordance with the manufacturers directions. BES must review the instruction before it is finalized.
  - 3.7.3. Have a maintenance and cleaning program for common-use respirators. Common-use respirators must be cleaned after each use.
  - 3.7.4. If common-use respirators are used, make sure that sufficient types and sizes of respirators are available to fit all employees that need the protection.
  - 3.7.5. Make sure that all employees who use respirators are physically qualified and have a current occupational health examination in their medical records prior to beginning duties requiring the use of a respirator and annually thereafter.
  - 3.7.6. Ensure that all employees have been trained and fit-tested by BES and have been issued an AF Form 2772, prior to beginning duties requiring the use of a respirator.

- 3.7.7. Coordinate with BES for guidance on the procurement of respirators. Ensure the appropriate respirator for which the individual was fit-tested is ordered and received. These are listed on the AF Form 2772.
- 3.7.8. Annotate the "Employee's Work Folder" for civilian employees to show that fit-tests and respirator training have been completed. The completion date, types, and size of respirator(s) approved must be recorded.
- 3.7.9. Annotate military personnel training on AF Form 1098, Special Task Certification and Recurring Training, and file in AF Form 623, On-The-Job Training Record, to show that fit-testing and respirator training have been completed. The completion date, type, and size of respirator(s) approved must be recorded.
- 3.7.10. Provide a clean and proper storage area for respirators as outlined in AFOSH Std 48-137. Respirators will NOT be stored in toolboxes, dusty areas, chemical storage areas, or where they are exposed to direct sunlight.
- 3.7.11. Check employees closely to make certain no condition exists that will prevent a good seal between the face and respirator. These conditions include chewing gum, having a beard or mustache in areas where the face piece contacts the face, having excessive sideburns, lack of dentures, eyeglass frames that interfere with an acceptable seal, etc. Vision correction inserts are available for full-face respirators.
- 3.7.12. Provide all employees annual refresher education on workplace hazards and protective equipment IAW appropriate AFOSH standards.
- 3.7.13. Annotate all initial and annual workplace hazard and respiratory protection equipment training for military and civilian personnel on an AF Form 55, or an equivalent computer generated training record.
- 3.7.14. Forward to BES copies of sampling results of any supplied breathing air tests no later than two weeks after receipt of results.
- 3.8. Employees who are required to wear respirators will:
- 3.8.1. Be familiar with workplace OI for the work areas that require respirators.
- 3.8.2. Have AF Form 2772 available for inspection at all times.
- 3.8.3. Inspect each respirator before using to make sure all parts are working properly. Any parts that are damaged, worn out, or missing must be replaced.
- 3.8.4. Inspect, clean, and place the respirator in its proper storage area after each use.
- 3.8.5. Not use parts from another type of respirator to repair a respirator. AFOSH Std 48-137 does not allow any other parts to be used other than the approved manufacturer's replacement parts.
- 3.8.6. Use only the type and respirator approved on the AF Form 2772. Use the NIOSH or MSHA approved filters and/or canisters for each type of work and respirator.
- 3.8.7. Be sure that airline and emergency respirators are used IAW the guidance from the supervisor and the written workplace OI.
- 3.8.8. Not chew gum, have facial conditions that could prevent the mask from sealing (i.e. beard), or wear headgear that might interfere with the respirator seal.

3.8.9. Attend all mandatory examinations, tests, and training IAW this Instruction and applicable AFOSH standards.

#### 4. Training:

4.1. BES will provide: The initial training of supervisors who have the responsibility of overseeing work activities of one or more persons who must wear respirators. BES will repeat training, when a supervisor has a permanent change of station or becomes supervisor of a different workplace. Documentation of training will be made on AF Form 55 or equivalent computerized training records. The training will include the following subjects as a minimum:

4.1.1. Basic respiratory protection practices.

4.1.2. Nature and extent of respiratory hazards to which workers under supervision may be exposed.

4.1.3. Principles and criteria for the selection of respirators used by workers under their supervision.

4.1.4. Supervisor's annual training of respirator wearers.

4.1.5. Fitting and issuing of respirators.

4.1.6. Inspection, maintenance, cleaning and storage of respirators.

4.1.7. Use of respirators, including monitoring of use.

4.1.8. Publication(s) pertaining to respirator use, including the preparation of a workplace OI.

4.2. Respirator Wearer: BES will provide initial training to respirator wearers. Initial training shall be repeated whenever an individual arrives at Bolling AFB from a permanent change of station and their duties require respiratory protection. Documentation of the initial training will be made on AF Forms 55 and 2767. Initial and annual training shall include the following elements:

4.2.1. Instruction in the nature of the hazards, whether acute, chronic, or both, and an explanation of what may happen if the respirator is not used.

4.2.2. Explanations on why other controls (such as engineering controls) are not being applied or are not adequate and what effort is being made to reduce or eliminate the need for respirators.

4.2.3. An explanation on why a particular type of respirator has been selected for a specific respiratory hazard.

4.2.4. An explanation on the operation, capabilities, and limitations of the respirator selected.

4.2.5. Instructions on how to recognize and cope with emergency situations.

4.2.6. Explanations on how to maintain, clean, and store the respirator. This shall include how a worker should know when to change the filters or cartridges on an air-purifying respirator.

4.2.7. Instructions for special-use respirators (such as Immediately Dangerous to Life and Health (IDLH), escape, etc).

4.2.8. Instructions on how to inspect, put on, check the fit, and properly wear the respirator.

4.2.9. The need to inform their supervisor of any problems experienced by themselves and their co-workers while wearing respirators.

4.2.10. An opportunity for each respirator wearer to handle the respirator, learn how to don and wear it properly, check its seals, wear it in a safe atmosphere, and wear it in a test atmosphere.

4.2.11. Respirator cartridge or filter change procedures, if needed.

4.2.12. Importance of maintaining NIOSH certification of respirators (e.g., by only using manufacturer's replacement parts).

JAMES P. HUNT, Colonel, USAF  
Commander

**Attachment 1****GLOSSARY FOR REFERENCES AND SUPPORTING INFORMATION*****References***

Air Force Occupational Safety and Health (AFOSH) Standard 48-137, Respiratory Protection Program

Air Force Occupational Safety and Health (AFOSH) Standard 48-145, Occupational Health Program

AFI 32-2001, Fire Protection Operation and Fire Protection Program

AFI 91-301, Air Force Occupational Safety and Health Program

29, Code of Federal Regulation (CFR), Part 1910.134, Respiratory Protection