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Aerospace Medicine

**RESPIRATORY PROTECTION PROGRAM**



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This instruction implements 29 CFR 1910.134, *Respiratory Protection*, and AFOSH Standard 48-137, *Respiratory Protection Program*, at Fairchild Air Force Base. This instruction is required to be maintained by all organizations in which personnel wear respirators for protection against inhalation of harmful atmospheres or for emergency escape or rescue. The purpose of this program is to ensure that all respirator users are medically qualified, fitted, and trained to use their respirators. It applies to all military and civilian personnel employed in areas where respirators are used. One copy of this instruction will be maintained in each work area using respirators. This instruction does not apply to contract personnel. This instruction does not apply to Nuclear, Biological, and Chemical (NBC) warfare situations including NBC exercises. This instruction applies to all units assigned to Fairchild AFB, to include tenant units.

**SUMMARY OF REVISIONS**

Three major changes are incorporated into this instruction. First is the addition of a cartridge change out log to the program binder requirements. The second change is regarding the use of contact lenses with respirators. Gas permeable and soft contact lenses may be worn with industrial respirators (Reference AFOSH Standard 48-137, Paragraph 4.4.4.3). The third change is the use of the N95 Respirator for protection against Tuberculosis (TB).

**1. Definition.** Respirator: An approved device designed to provide the wearer with respiratory protection against inhalation of harmful atmospheres.

**2. Responsibilities.**

2.1. The Commander, 92 Air Refueling Wing, is responsible for establishing a respiratory protection program as required by AFOSH Standard 48-137.

2.2. The Commander, 92MDG is responsible for ensuring the 92 Aeromedical – Dental Squadron's Occupational Health Working Group provides support, advice and guidance towards maintaining a 92

Wing base level Respiratory Protection Program. Bioenvironmental Engineering will be the 92 MDG representative and OPR for the wing program.

2.3. Unit Commanders will:

2.3.1. Ensure that a respiratory protection program is established within their organizations where respirators are used. Ensure that the program conforms to the requirements of AFOSH Standard 48-137, 29 CFR 1910.134, and applicable OSHA standards.

2.3.2. Ensure personnel who use respirators or supervise those that use respirators are provided training as outlined in AFOSH Standard 48-137.

2.3.3. Authorize expenditure of unit funds to purchase and maintain respiratory protection devices when required by Bioenvironmental Engineering.

2.4. 92d Supply Squadron and the 141st Logistics Squadron will:

2.4.1. Control the issue of respirators as described in AFOSH Standard 48-137.

2.4.2. Ensure Bioenvironmental Engineering Flight (BEF) has approved respiratory protection requests before issuing respirators.

2.4.3. Ensure a "suitable substitute" for a particular respirator or respirator part is not issued without consent of BEF.

2.5. Bioenvironmental Engineering is the base level authority on respiratory protection and the office of primary responsibility for the Base Respiratory Protection Program. BEF will:

2.5.1. Evaluate work area hazards, to determine the need for respirators based on potential for worker exposures. BEF will select the proper respirator type for the work area hazard.

2.5.2. Conduct respirator training and fit testing.

2.5.3. Provide the worker with information needed to order a respirator using the worker's squadron funds.

2.5.4. Issue AF Form 2772, **Certificate of Respirator Fit Test**, to all qualified respirator users.

2.5.5. Conduct annual visits to work areas using respirators and evaluate the effectiveness of the section's program.

2.5.6. Review, approve and maintain copies of work area Respirator Use Operating Instructions.

2.5.7. Ensure that all prospective respirator users are medically qualified to wear respirators prior to performing fit testing and training.

2.5.8. Document initial and annual training and fit-testing IAW AFOSH Standard 48-137.

2.5.9. Present an annual Base Respiratory Protection Program Evaluation Summary to the Aero-medical Council.

2.6. Commander, 92 Aeromedical-Dental Squadron will:

2.6.1. Will designate the Occupational Health Working Group as the reviewing authority responsible for ensuring that the spirit of this instruction is maintained.

2.6.2. Establish a medical evaluation protocol for respirator users.

2.6.2.1. Ensure a physician or other licensed health care provider (PLHCP) will determine if a

worker is medically qualified to wear a respirator.

2.7. Chief, Public Health, will ensure all respirator users have been properly coded to receive baseline and annual medical evaluations.

2.8. Chief, Ground Safety will refer respirator usage problems identified during their inspections to BEF.

2.9. Fire Department will conduct all training on the use and maintenance of self-contained breathing apparatuses (SCBA) as required by AFOSH Standard 48-137, Paragraph. 2.5.10.

2.10. Supervisors will:

2.10.1. Establish a formal Respirator Use Program within their work areas by maintaining the contents of a work area specific Respirator Program Binder. The binder will be tabbed and contain at a minimum the items shown in **Attachment 1**.

2.10.2. Obtain BEF approval before ordering respirators.

2.10.3. Schedule all personnel requiring respirator training and fit testing through BEF.

2.10.4. Ensure workers complete FAFB Form 227, **Respiratory Protection Program Medical Evaluation Questionnaire**, and forward to BEF at least two weeks prior to class.

2.10.5. Conducts workplace respirator training IAW specific work area Respirator Use Operating Instruction

2.10.6. Ensure workers use respirators only for the task(s) listed on AF Form 2772.

2.10.7. Call BEF for information and guidance regarding the use of respirators.

2.10.8. Provide for quality control of respirator breathing air (if required) according to T.O. 42B-1-22 Quality Control of Compressed and Liquid Breathing Air, and furnish sample results to BEF.

2.11. Respirators users will:

2.11.1. Report to their supervisor any change in medical status that may impact their ability to safely wear a respirator.

2.11.2. Guard against damage to the respirator.

2.11.3. Inspect, clean, and maintain their respirator.

2.11.4. Maintain the integrity of the respirator certification by not mixing parts from different manufacturers.

2.11.5. Be familiar with requirements in AFOSH Standard 48-137, FAFBI 48-103, and their specific work area Respirator Use Operating Instruction.

2.11.6. Use respirators according to the instructions and training received.

2.11.7. Wear only those respirators for which they have received training and fit testing, and only for the tasks specified on AF Form 2772, **Certificate of Respirator Fit Test**.

### 3. Respiratory Hazard Assessment and Control.

3.1. Respiratory Hazard Assessment.

3.1.1. BEF evaluates health hazards in work areas to determine whether or not respirators are needed to control personal exposure. This assessment will be done during routine or special surveillance industrial hygiene surveys.

3.1.2. Work areas that are mandated by technical order, operational guidance, or other regulation to wear respirators will notify BEF of such directives.

3.2. Respiratory Hazard Control. BEF is the final approving authority for all respirators used by the 92d ARW and all tenant units supported by the 92d ARW. All respirators, whether locally purchased, supply issued, purchased as part of a kit, or received as a promotional item, must be approved by BEF before the respirator can be used.

#### **4. Respirator Selection, Use, Limitations and Restrictions.**

4.1. Selection. BEF researches and selects all respirators used on Fairchild AFB. BEF determines which type of respirator is needed in the work area. The selection is based on the operation, chemical hazard, and protection factor required. The user can request a specific manufacturer and model as long as it is approved by BEF.

4.2. Use. Respirators will only be used for the tasks listed on the respirator users' AF Form 2772.

4.3. Limitations. All respirators and cartridges have limitations, as specified on the AF Form 2772. Contact BEF if there are questions on specific respirator limitations.

4.4. Restrictions.

4.4.1. Workers will not perform tasks that require the use of a respirator unless they have been medically evaluated, trained, fit-tested with a specific respirator, and issued an AF Form 2772 by BEF at Fairchild AFB.

4.4.2. Workers with facial hair that impairs the proper seal of the respirator will not be fitted with a tight-fitting respirator. The only authorized respirator for an individual with facial hair is a supplied-air; positive pressure hooded respirator approved by BEF, as required by AFOSH Standard 48-137, Paragraph 4.4.1.

4.4.3. Respirators will not be shared by anyone unless approved by BEF and identified on the work area Respirator Use Operating Instruction.

4.4.4. Surgical masks are not authorized for occupational exposures outside of the medical setting. The mask is only appropriate for infection control.

4.4.5. Air Force employees in Fairchild work areas will not wear privately procured respirators.

4.4.6. Filtering facepiece devices (FFPD - a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium) may not be worn when a respirator is necessary. The only exception to this provision is the use by Air Force Medical Treatment Facilities personnel for protection against Tuberculosis (see Paragraph 9). If a worker wears a disposable FFPD strictly for comfort purposes, the work area supervisor must ensure the worker receives all training identified in AFOSH Standard 48-137, Paragraph 3.2.3.2 and 3.5, and documents this training on individual's AF Form 55.

#### **5. Medical Surveillance.**

5.1. FAFB Form 227 is used by physicians from the Aeromedical-Dental Squadron to medically evaluate personnel for respirator wear.

5.2. The Occupational Health Working Group reviews workplace exposure data to determine if an occupational medical exam is required. Any medical exam required will be identified on AF Form 2766, **Clinical Occupational Health Examination Requirements**.

**6. Program Binder Requirements.** The following are the minimum items that will be maintained wherever respirators are used. The items will be kept in a three-ring binder. See **Attachment 1** for a description of program requirements.

6.1. Tab A - Work Area Specific Respirator Use Operating Instruction.

6.2. Tab B - Current copies of Certificate of Respirator Fit Test (AF Form 2772).

6.3. Tab C - FAFBI 48-103, *Respiratory Protection Program*.

6.4. Tab D - AFOSH Standard 48-137, *Respiratory Protection Program*.

6.5. Tab E – Cartridge change out log. New National Standards for Safety and Health (NIOSH) guidance has mandated certification for particulate respirators. BEF is required to provide supervisors with guidance as directed by AFOSH Standard 48-137, Paragraph 2.5.4. A workplace specific cartridge change out schedule shall be developed and maintained by the shop. The initial use date, employee name, cartridge type will be annotated in the log. The cartridge will be marked with the start used date (month/year). The worker should always pay strict attention to this specified cartridge change out schedule. If there are more airborne contaminants such as paint within the atmosphere surrounding the worker, the cartridges may clog quickly. The worker should be aware that any time that it becomes hard for the worker to breathe, or a filter is damaged, the cartridges should be changed.

6.6. Certification of personal protective equipment. Guidance in 29 CFR 1910.134, Paragraph. (d)(3)(iii) directs that cartridge change out schedules should be established for workplaces using air-purifying respirators for protection against gases and vapors. The worker should always pay strict attention to this specified cartridge change out schedule. If gases and vapors should penetrate the cartridge, serious or permanent damage may occur to the workers respiratory system.

## **7. Documentation.**

7.1. FAFB Form 227, **Respiratory Protection Program Medical Evaluation Questionnaire**. This questionnaire is used to document the respirator user's medical evaluation. Completed forms are filed in individual medical records.

7.2. AF Form 55, **Employee Safety and Health Record**.

7.2.1. Workcenter supervisors will be required to perform workplace specific respirator training. This training will need to be of sufficient quality to support all standards of workplace procedures that aircraft maintainers will need to be required to perform in accordance with their technical orders and specific operating procedures. Block IV will also be used to document filtering face piece device training, if required.

7.2.2. An equivalent computerized training program (i.e. G081) can be used to help manage the scheduling of training. It may not be used to document training received.

7.3. AF Form 2766, **Clinical Occupational Health Examination Requirements**. Used to identify occupational health medical exams required by work areas.

7.4. AF Form 2772, **Certificate of Respirator Fit Test**. Used to certify BEF respirator training and fit testing.

7.4.1. Filed in work area Respiratory Protection Program Binder, Tab B. NOTE: This certificate contains an expiration date.

7.4.2. One copy will be given to the respirator wearer's supervisor to be maintained with the wearer's AF Form 55.

7.5. Respirator Program Binder. Binder maintained in work area to help centrally locate program documentation. The binder contains work area specific information concerning the respiratory protection program. The binder will be tabbed and contain items as shown in **Attachment 1**.

7.6. Respirator Issue Letter. Letter addressed to the appropriate supply function and written by BEF authorizing issue of a specific respirator. Worker's squadron must approve expenditure of squadron funds.

7.7. AF Form 1071, **Inspection and Maintenance Record**. This form shall be maintained for each SCBA, airline respirator and other respirators stated in the base directive required by this standard

## **8. Respirator Training and Fit-testing Procedures.**

8.1. Supervisor contacts BEF to schedule workers for training and fit testing.

8.2. Worker completes FAFB Form 227, in ink, and forwards it to BEF (92 ADS/SGGB) at least two weeks prior to training and fit testing.

8.3. Supervisor documents work area respirator training on AF Form 55, block IV.

8.4. BEF reviews FAFB Form 227 and forwards it to a physician for review.

8.5. Physician approves or disqualifies the worker for respirator use by completing the appropriate block on the back of FAFB Form 227.

8.6. Flight Medicine Section contacts worker if physician requests interview.

8.7. Physician forwards FAFB Form 227 to BEF.

8.8. Individuals to be trained and fit-tested should refrain from smoking for at least 45 minutes prior to class.

8.9. Individual to be trained and fit-tested must be clean- (no more than 14-hour growth) prior to class.

8.10. BEF conducts training and fit testing of worker.

8.11. BEF completes back of FAFB Form 227 and forwards it to Medical Records Section for filing in workers medical record.

8.12. BEF completes AF Form 2772 and forwards copies to the supervisor.

8.13. BEF completes Respirator Issue Letter and forwards it to the supervisor.

8.14. Supervisor documents BEF certification date onto AF Form 55, block IV.

8.15. Supervisor files copy of AF Form 2772 in Respiratory Protection Binder, Tab B and a copy with the wearer's AF Form 55.

8.16. Squadron authorizes expenditure of funds. Worker and IMPAC card representative from the squadron take the Respirator Issue Letter to base supply Envision Store for respirator issue.

8.17. Supervisor conducts specific work area respirator training.

**9. Tuberculosis Respirator Fitting Procedures.**

9.1. Procedures for obtaining respiratory protection for TB patients must meet Center for Disease Control and Prevention (CDC) criteria for protection against TB. A decision to use filtering face piece devices at Fairchild AFB will be made by the Occupational Health Working Group.

9.2. Qualitative or quantitative fit testing will be performed initially at BEF. Any required refit testing will be at a frequency determined by the health facility. All Medical Group personnel will perform TB Exposure Control Plan Procedures as directed by MGI 48-2.

YOSHIO SMITH, Colonel, USAF  
Commander

## ATTACHMENT 1

## RESPIRATOR PROGRAM BINDER TABLE OF CONTENTS

**Tab A: Work Area Specific Operating Instruction.** Each work area in which respiratory protection is used shall develop an OI, which will be approved by BEF. The OI shall:

Describe the situations or operations in which respirators are required or recommended.

Describe respirator inspection, cleaning, storage, and maintenance procedures.

Describe the criteria which workers use to determine when respirator filters, cassettes, or cartridges must be changed.

Identify Annual Training requirements. i.e. Schedule of training.

Develop work area specific Lesson Plans and file in Tab B.

Include the required frequency of fit testing. Describe the method the supervisor uses to ensure all personnel are fit-tested.

**Recommended topics:**

**Responsibilities:** While responsibilities are described in AFOSH Standard 48-137 and this base instruction, additional work area specific responsibilities regarding implementation of the base respiratory protection program are addressed here.

**Selection, Use, and Limitations.** Identify the:

Type of respirators used.

Type of respirator cartridges used.

Authorized respirator/respirator cartridge combinations.

**List of specific tasks requiring Respirator Use.** Using the Bioenvironmental Engineering chemical inventory as a point of reference, evaluate each chemical listed, identify the operations/tasks associated with each chemical (recommend brainstorming with a group of workers familiar with shop activities.), finally identify those tasks requiring controls (i.e. PPE, gloves, respirator use, ventilation system etc.).

**Training.** The shop will detail how training will be accomplished in their work area. Consideration should be given to topics such as: training schedule, record keeping requirements of initial and annual refresher training, training of emergency response and rescue teams, and any other unique work area requirements.

**Fit-Testing.** Work area fit-testing requirements and scheduling procedures should be included here.

**Care, Inspection, and Maintenance of Respirators.** Any work area requirements deemed necessary should be included in this section.

**Medical Surveillance.** Work area requirements may be added as needed in addition to the requirements of standards.

**Administrative Procedures.** Work area administrative requirements regarding the purchase, control, or issuance of respirators should be addressed in this section.

**Procedures for Program Evaluation.** Time frames may be established. Any work area self-inspection or review of OIs should be included in this section. Other administrative requirements may be included here.

**Tab B: Certificate of Respirator Fit Test (AF Form 2772).** Copies of all Certificate of Respirator Fit Test will be maintained in this tab.

**Tab C: FAFBI 48-103, *Respiratory Protection Program*.**

**Tab D: AFOSH Standard 48-137, *Respiratory Protection Program*.**

**Tab E: Cartridge Change Out Log.**