

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

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12 SEPTEMBER 2018

Aerospace Medicine

**RESPIRATORY PROTECTION
PROGRAM**



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Air Force Instruction (AFI) is consistent with Air Force Policy Directive (AFPD) 48-1, *Aerospace Medicine Enterprise* and implements the Department of Labor, Occupational Safety and Health Administration (OSHA) standard Title 29, Code of Federal Regulations (CFR), Part 1910.134, *Respiratory Protection*, and National Fire Protection Agency (NFPA) 1852, *Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA)*, current editions as authorized under DoDI 6055.05, *Occupational and Environmental Health*. This instruction applies to all Air Force (AF) installation commanders, all AF military and civilian personnel (including Air Force Reserve (AFR) and Air National Guard (ANG) units and members), as well as, direct hire foreign nationals (as established by Status of Forces Agreements). This instruction does not apply to employees working under government contract or private contractors performing work under government contracts. Contractors are solely responsible for compliance with OSHA standards and the protection of their employees unless otherwise provided by law or regulation to be specifically included in the contract. The OSHA standard and this instruction comprise a unit, which prescribes the minimum requirements for an effective Respiratory Protection Program. With respect to references in this AFI to responsibilities of the medical treatment facility commander or director, pursuant to 10 USC 1073c, effective 1 October 2018, the Defense Health Agency, a combat support agency, will be responsible for administration and management of military treatment facilities; the details of these responsibilities are still being worked and finalized. Report conflicts in guidance between this instruction, Federal standards, or Air Force directives through major commands (MAJCOM), direct reporting units (DRU), or field operating agencies (FOA) Surgeons to: Air Force Medical Support Agency, Bioenvironmental Engineering Branch (AFMSA/SG3PB), 7700

Arlington Blvd, Falls Church, VA 22042-5158. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. See Air Force instruction (AFI) 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the requestors commander for non-tiered compliance items. This instruction may be supplemented with additional or more stringent criteria. Supplements must be routed to the OPR of this publication for coordination prior to certification and approval. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule located in the Air Force Records Information Management System. This Instruction requires the collection and or maintenance of information protected by the Privacy Act or 1974 authorized by Title 5 U.S.C. 552a. The applicable SORN DHA-19, Defense Occupational and Environmental Health Readiness System – Industrial Hygiene (DOEHRs-IH) is available at: <http://dpclo.defense.gov/Privacy/SORNs.aspx>. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Significant changes include removing of duplication with 29 CFR 1910.134, alignment of verbiage to match 29 CFR 1910.134, clarification on military unique respirators, and refinement of tiering.

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Chapter 1

PROGRAM OVERVIEW

1.1. USAF Respiratory Protection Program. This instruction establishes the USAF Respiratory Protection Program that implements and incorporates guidance and criteria from 29 CFR 1910.134 available at:

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=127

16. This instruction primarily applies to the use of respiratory protective devices during the execution of operations in industrial worksites. With the exception of more stringent requirements in this instruction, the Respiratory Protection Program shall adhere to the requirements stated in the most current version of 29 CFR 1910.134.

1.2. Specific Requirements and Procedures . This instruction also identifies specific requirements and procedures for uniquely military respiratory protective devices; i.e. those designed for use in chemical, biological, radiological, and nuclear (CBRN) contaminated environments. Uniquely military respiratory protective devices (i.e. CBRN masks) shall not be used for protection of workers in non-unique military work environments such as an industrial worksite.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Assistant Secretary of the Air Force for Installations, Environment, and Energy (SAF/IE).

2.1.1. Develops policy and provides oversight of all matters pertaining to the formulation, review and execution of plans, policies, programs and budgets relative to the Respiratory Protection Programs.

2.1.2. Co-chairs Headquarters Air Force Environment, Safety, and Occupational Health (ESOH) Council. Conducts senior level review of the AF Occupational and Environmental Health (OEH) Program in accordance with AFI 90-801, *Environment, Safety, and Occupational Health Councils*.

2.2. The Office of the Air Force Surgeon General (AF/SG).

2.2.1. Formulates, publishes, reviews, and executes plans, policies, programs, and budgets for the medical support of the occupational and environmental health program.

2.2.2. Reports the status of the AF Respiratory Protection Program as a part of the annual OEH program review and on an as-requested basis to SAF/IE through a formal program management review.

2.3. Air Force Medical Support Agency (AFMSA/SG3PB).

2.3.1. Assists AF/SG with developing policy to execute the Respiratory Protection Program as a part of the OEH program.

2.3.2. Develops and monitors AF-level performance measures (metrics) to assess Respiratory Protection Program effectiveness.

2.4. Air Force Medical Operations Agency (AFMOA).

2.4.1. Advocates for Defense Health Program (DHP) funding needed for the AF Medical Service (AFMS) to execute Respiratory Protection Program requirements.

2.4.2. Validates and allocates DHP resources required for OEH surveillance associated with Respiratory Protection Program activities at installations, DRUs, FOAs, and Geographically Separated Unit (GSUs).

2.5. USAF School of Aerospace Medicine, Occupational and Environmental Health Department (USAFSAM/OE).

2.5.1. Provides respiratory protection training for Bioenvironmental Engineering (BE) personnel through initial technical training courses. **(T-1)**

2.5.2. Recommends technical changes to this instruction, as needed. **(T-3)**

2.5.3. Identifies programmatic, policy, and safety releases (National Institute for Occupational Safety and Health (NIOSH) Respirator User Notices, NIOSH National Personal Protective Technology Laboratory Press Releases, etc.) and provides guidance to installation and MAJCOM BEs. **(T-1)**

2.6. Major Command Bioenvironmental Engineer.

- 2.6.1. Advocates for resources within the command for the Respiratory Protection Program.
- 2.6.2. Resolves questions regarding specific interpretations of this and applicable OSHA standards, and if necessary, coordinate with AFMSA/SG3PB.
- 2.6.3. Coordinates with AFMSA/SG3PB to identify and resolve Respiratory Protection programmatic issues.
- 2.6.4. Disseminates information pertaining to programmatic, policy, and safety releases concerning respiratory protection within the MAJCOM.

2.7. Installation Commander or equivalent.

- 2.7.1. Directs the execution of the installation Respiratory Protection Program through the installation OEH Program IAW AFI 48-145, *Occupational and Environmental Health Program*. (T-1)
- 2.7.2. Establishes policies and procedures to implement this instruction at the installation level. (T-1)
- 2.7.3. Designates an installation Respiratory Protection Program administrator who is qualified by appropriate training or experience commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness IAW 29 CFR 1910.134(c). (T-0) The administrator must be a fully qualified Bioenvironmental Engineer or Bioenvironmental Engineering Technician,) or a civilian Industrial Hygienist. (T-3)

2.8. Logistics Readiness Squadron Commander or equivalent.

- 2.8.1. Ensures serviceable CBRN masks are issued after performing an initial sizing measurement or visual sizing technique IAW the current CBRN mask technical order (T.O.). (T-3)
- 2.8.2. Ensures BE is notified immediately upon receipt of a respirator recall notice or notice of defect from either a manufacturer or NIOSH. (T-3)
- 2.8.3. Develops and implements procedures for controlling the ordering and issuing of respirators. (T-3)

2.9. Military Treatment Facility Commander/Director (MTF/CC) / AF Ground Reserve Medical Unit Commander (RMU/CC)/Guard Medical Unit Commander (GMU/CC) (or local equivalent).

- 2.9.1. Ensures a physician or other licensed health care professional (PLHCP), as defined in 29 CFR 1910.134 (e), is designated to establish and implement medical evaluation procedures. (T-3)
- 2.9.2. Ensures medical evaluations are provided to personnel enrolled in the Respiratory Protection Program IAW 29 CFR 1910.134(c)(1)(ii). (T-0)

2.10. Aerospace Medicine Council (AMC).

- 2.10.1. Serves as the installation-level authority on medical surveillance of respirator users. (T-1)

2.10.2. Establishes a medical evaluation protocol for respirator users per 29 CFR 1910.134(e) and Appendix C, Part B. **(T-0)**

2.10.3. Issues medical recommendations to unit commanders, as necessary, regarding CBRN mask Quantitative Fittest (QNFT) requirements. **(T-1)**

2.11. Occupational and Environmental Health Working Group (OEHWG).

2.11.1. Develops medical evaluation questionnaire (MEQ) meeting at least the minimum requirements defined in 29 CFR 1910.134(e)(2)(ii). **(T-1)**

2.11.2. Develops actions to facilitate the identification of workers who may have developed medical conditions affecting respirator use since initial fit testing. **(T-1)**

2.11.3. At least annually briefs the medical facility professional staff to notify the AMC Chair and BE, as soon as possible, if a patient who uses a respirator develops a medical condition that could affect their ability to use a respirator. **(T-1)**

2.11.4. At least annually, evaluates the effectiveness of the Respiratory Protection Program **(T-3)**

2.12. Chief of Aerospace Medicine (SGP).

2.12.1. Designates physicians or other licensed health care professionals (PLHCPs) to execute the medical evaluations as defined in 29 CFR 1910.134 (e). **(T-0)**

2.12.2. Determines medical surveillance examination (MSE) requirements, based on OEHWG recommendations, for personnel assigned to a Respiratory Protection Program. **(T-1)**

2.12.3. Directs the use of the MEQ developed by OEHWG. **(T-1)**

2.13. Physicians or other Licensed Health Care Professionals (PLHCP). Conducts medical evaluations IAW 29 CFR 1910.134(e) and issues written recommendation regarding clearance for worker(s) to wear a respirator to the worker's unit commander. **(T-0)**

2.14. Bioenvironmental Engineering (BE).

2.14.1. Serves as the installation Respiratory Protection Program administrator and executes all aspects of an installation level program IAW 29 CFR 1910.134 and this instruction unless otherwise specified. **(T-1)**

2.14.2. Determines when respiratory protection is required based on worksite hazards. **(T-1)**

2.14.3. Assists Logistics and Readiness Squadron (LRS) and contracting in developing procedures for controlling the ordering and issuing of respirators. **(T-3)**

2.14.4. Assists worksite supervisors, as necessary, in the preparation of the written worksite-specific procedures and annual training requirements. **(T-3)**

2.14.5. Reviews, recommends, and approves worksite-specific respirators. **(T-1)**

2.14.6. Conducts industrial respirator and CBRN mask Quantitative Fit Test (QNFT). **(T-1)**

2.14.7. Provides industrial respirator fit test results to the respirator wearer's worksite supervisor. **(T-1)**

2.14.8. Authorizes installation organizations/units/or individuals, other than BE, to conduct fit-testing IAW 29 CFR 1910.134. These individuals shall be certified in writing by BE and evaluated annually. **(T-3)**

2.14.9. Notifies worksite supervisors and respirator users when a respirator recall notice or notice of defect is received from a manufacturer or NIOSH. **(T-1)**

2.14.10. Coordinates with Public Health (PH) to ensure Respiratory Protection Program rosters in DOEHRS match roster in Aeromedical Services Information Management System (ASIMS). **(T-1)**

2.14.11. At least annually, reports the number of individuals on the Respiratory Protection Program with unacceptable exposures, as defined by DODI 6055.05, to the OEHWG. **(T-3)**

2.14.12. Manage respirator selection, rosters, and fit testing using DOEHRS. **(T-1)**

2.15. Public Health (PH) or Occupational Medicine Services.

2.15.1. Recommends Medical Surveillance Exam (MSE) requirements to the OEHWG for all respirator wearers based on BE OEH Assessments. **(T-1)**

2.15.2. Records completion of medical evaluation and fit test requirements in ASIMS. **(T-1)**

2.15.3. Provides MEQ to individuals newly identified on the Respiratory Protection Program or who require an additional medical evaluation IAW 29 CFR 1910.134(e)(7), this does not apply to uniquely military respiratory devices. **(T-0)**

2.15.4. Ensures MEQs are filed in the individual's medical record IAW 29 CFR 1910.134(e). **(T-0)**

2.15.5. Works with supervisors, designated unit representatives or individual employees to schedule individuals for medical evaluations with PLHCPs. **(T-3)**

2.15.6. Coordinates with BE to ensure Respiratory Protection Program rosters in ASIMS match rosters in DOEHRS-IH. **(T-1)**

2.15.7. Formally notifies BE of personnel who have been medically cleared to wear a respirator. **(T-3)**

2.16. Infection Control Officer.

2.16.1. Determines the occupational activities with potential to expose medical personnel to airborne infectious diseases. **(T-2)**

2.16.2. Recommends patient care areas to BE that may require respiratory protection based on potential exposures to infectious diseases. **(T-3)**

2.17. Occupational Safety. Refers problems concerning respirator usage, discovered during safety inspections, to BE. **(T-3)**

2.18. Fire and Emergency Services.

2.18.1. Coordinates with BE to provide training on the use and maintenance of SCBAs. **(T-3)**

2.18.2. Coordinates with BE, to ensure required maintenance for regulating or admission valves, regulators, and alarms for SCBAs is performed by the respirator manufacturer or

appointed individuals who are trained and certified by the manufacturer to conduct such maintenance. **(T-3)**

2.18.3. Ensures flow test and hydrostatic testing of emergency and first responder SCBAs IAW NFPA 1852 guidelines **(T-0)** and enters into the Fire Department module of the Automated Readiness Information System for tracking. **(T-1)**

2.18.4. Provides NFPA 1852 inspection requirements to installation emergency and first responders whenever they are updated or upon request. **(T-1)**

2.19. Unit Commander.

2.19.1. Establishes and implements a Respiratory Protection Program with written worksite-specific procedures IAW 29 CFR 1910.134(c). **(T-0)**

2.19.2. Provides respirators and training, at no cost, to unit personnel when required by the BE office to control health hazards in the workplace IAW 29 CFR 1910.134(c). **(T-0)**

2.19.3. Designates a unit Respiratory Protection Program administrator, typically the worksite supervisor, who is qualified by appropriate training or experience that is commensurate with the program IAW 29 CFR 1910.134(c)(3). **(T-0)** The administrator must have attended a respiratory protection training course (e.g., OSHA Training Institute or equivalent) or be certified by the BE Flight Commander (or equivalent) as technically proficient to administer the program. **(T-3)**

2.19.4. Provide respirators or adapters to BE, in sufficient sizes/quantities, when the equipment does not already exist to meet fit testing requirements for unit personnel. **(T-3)**

2.20. Unit Deployment Managers (UDM).

2.20.1. Assists unit personnel with scheduling CBRN mask QNFT. **(T-3)**

2.20.2. Tracks CBRN mask QNFT completion for unit personnel and reports statistics to unit commander. **(T-2)**

2.20.3. Ensures a copy of each individual's CBRN mask QNFT documentation is located in the appropriate mobility folder (or equivalent). **(T-2)**

2.20.4. Ensures unit personnel re-accomplish QNFT for reasons outlined in [Chapter 4](#). **(T-3)**

2.20.5. Ensure personnel deploying, who are assigned deployment duties that require Respiratory Protection Program, have a current fit test for the length of deployment, for deployments up to 300 days. **(T-1)**

2.21. Worksite Supervisors (Unit Respiratory Protection Program Administrators).

2.21.1. Review the written worksite-specific procedures **(T-0)** and provide a copy to BE for approval annually. **(T-1)**

2.21.2. Notifies BE of conflicts between respiratory protection guidance and applicable T.O.s. **(T-3)**

2.21.3. Ensures personnel adhere to the conditions of the written worksite-specific procedures. **(T-3)**

2.21.4. Designates individual(s) responsible for the use, maintenance, inspection, and care of common use, emergency or escape respirators, as appropriate. **(T-3)**

2.21.5. Notifies PH and/or BE with changes to the unit Respiratory Protection Program roster or if current employees have a change in medical status that may affect wear of a respirator. **(T-1)**

2.21.6. Maintains a copy of fit test results for all personnel on the worksite's Respiratory Protection Program. **(T-3)**

2.21.7. Regularly consult respirator users to assess program effectiveness IAW 29 CFR 1910.134(l)(2). **(T-0)**

2.22. Respirator Users.

2.22.1. Adheres to the conditions of the written worksite-specific procedures IAW 29 CFR 1910.134(c). **(T-0)**

2.22.2. For air-purifying respirators, maintain records of use of filters/cartridges to ensure compliance with change-out schedule developed by BE. **(T-3)**

2.22.3. Reports any change in medical status, which may impact their ability to safely wear respiratory protection, to their supervisor (e.g., physical changes such as weight changes, facial scarring, dental changes, cosmetic surgery, disfigurement, etc.; medical conditions such as asthma, pulmonary disease, etc.) IAW 29 CFR 1910.134(f). **(T-0)**

2.22.4. Maintains current CBRN mask QNFT documentation, either in the individual mask carrier (if issued) or with other personal training records. **(T-2)**

2.22.5. Ensures CBRN mask is inspected, stored and maintained IAW T.O. 14P4-20-1, *Operator and Field Maintenance Manual for Mask, Chemical-Biological: Joint Service General Purpose, Field, M-50*. **(T-1)**

2.22.6. If deploying and assigned deployment duties require respiratory protection, have a current fit test for length of deployment, for deployments up to 300 days. **(T-1)**

Chapter 3

RESPIRATORY PROTECTION PROGRAM

3.1. Program Elements. The ten program elements listed below mirror those found in 29 CFR 1910.134. The installation Respiratory Protection Program administrator implements the program elements as defined by 29 CFR 1910.134(c)(1), as well as, any additional elements listed in this chapter. Workers, worksite supervisors, commanders, and other functional areas such as Bioenvironmental Engineering (BE), Public Health (PH), Safety, and health care providers execute the program elements as required for adherence to 29 CFR 1910.134. Program elements listed in [para 3.1.5](#) and [3.1.7](#) are managed at the unit level. This chapter does not apply to military unique respirators (see [Chapter 4](#)).

3.1.1. Selection of respirators will be executed IAW 29 CFR 1910.134(d). **(T-0)**
Additionally,

3.1.1.1. Respirators shall be recommended by BE based on worksite hazards **(T-1)**, including Filtering Facepiece Devices (FFPD) in medical care environments. **(T-0)**

3.1.1.2. Respirators shall be selected by the worksite supervisor based on BE recommendations. **(T-3)**

3.1.1.3. Selected respirators shall be approved by BE prior to purchase and/or use to ensure protection from respiratory hazards. **(T-1)**

3.1.1.4. Respirators shall be purchased through the Standard Base Supply System. **(T-3)**

3.1.1.5. Communications. Ambient environmental noise and communication needs shall be considered when specific respirators are selected. **(T-3)**

3.1.1.6. Eye irritation. If contaminants cause eye irritation, full facepiece respirators or chemical protective goggles with half facepiece respirators shall be worn. **(T-1)**

3.1.1.7. Respirator use in low temperature environments. Low temperatures may cause detrimental effects on the performance of respirators such and changes in seal effectiveness. The effects of low temperatures shall be considered in the selection and maintenance of respirators and gas supplies. **(T-3)**

3.1.1.8. Respirator use in high temperature environments. High temperatures may affect the performance of the respirator, and may add undue physiological stress. The effects of high temperatures shall be considered in respirator selection and for medical approvals. **(T-3)**

3.1.1.9. Spectacle inserts. Refer to AFI 44-117, *Ophthalmic Services*, for determination of benefits and authorizations for spectacle inserts for use with respirators. **(T-1)**

3.1.1.10. Escape-only respirators. See [Attachment 2](#) (Selection Options for Escape-Only Respirators).

3.1.1.11. Special levels of respirators may be established in base supply as specified in Air Force Handbook (AFH) 23-123, Vol 2, *Integrated Logistics System-Supply*, by BE and issued to the wearer immediately after fit testing. BE is the approval authority for

establishing special levels and initiates the AF Form 1996, *Adjusted Stock Level*, as needed. **(T-3)**

3.1.1.12. Rationale for the selection of respirators shall be documented by process in the workplace-specific written plan IAW 29 CFR 1910.134(c) **(T-0)** and on the AF Form 2773, *Respirator Selection Worksheet*. **(T-1)**

3.1.2. Medical evaluations will be executed IAW 29 CFR 1910.134(e). **(T-0)** Additionally,

3.1.2.1. There are no annual or periodic requirements to re-accomplish medical evaluations, unless deemed necessary by the local Occupational and Environmental Health Working Group (OEHWG). **(T-3)**

3.1.2.2. Pulmonary function studies are often included in respirator certification evaluations; however, they cannot reliably predict who is cleared to wear a respirator. As such these tests should not be performed routinely. Spirometry, chest x-rays and other tests are recommended, only when clinically indicated and directed by the OEHWG. **(T-3)**

3.1.3. Fit testing procedures will be executed IAW 29 CFR 1910.134(f) and 29 CFR 1910.134 Appendix A. **(T-0)** Additionally,

3.1.3.1. As determined by BE, current fit tests from other installations may be used if the worker will be using the same make, model and style of respirator.

3.1.3.2. If a medically cleared worker cannot attain an adequate fit with a tight-fitting respirator, the OEHWG will decide whether the worker can utilize a positive pressure, loose-fitting facepiece, helmet, or hood, if appropriate, and send a written determination to the worksite supervisor and commander. **(T-3)**

3.1.3.3. If a loose fitting respirator does not provide adequate protection for worksite exposures, the OEHWG will make a temporary occupational restriction determination, using AF Form 422, *Notification of Air Force Member's Qualification Status*, with copies filed in the worker's medical record, and distributed to the worksite supervisor and commander. **(T-3)** If the worker is civilian, provide copy to the Civilian Personnel Office. **(T-3)**

3.1.4. Use of respirators will be executed IAW 29 CFR 1910.134(g). **(T-0)** Additionally,

3.1.4.1. Only government-provided respirators shall be used by government employees at Air Force worksites, except as authorized for voluntary use per [para 3.1.4.3](#). **(T-1)**

3.1.4.2. When notified by BE, respirator use shall be required by the worksite supervisor if any of the following conditions appear:

3.1.4.2.1. Other means of control do not reduce exposure below the occupational exposure limit (OEL) IAW 29 CFR 1910.134(d)(3); **(T-0)**

3.1.4.2.2. Other means of control are not feasible (this may include use during intermittent, non-routine operations) IAW 29 CFR 1910.134(d)(3); **(T-0)**

3.1.4.2.3. Use is specified by an OSHA standard; **(T-0)**

3.1.4.2.4. Use is required as an interim measure while permanent controls are awaiting funding, or being designed or installed IAW 29 CFR 1910.134(d)(3); **(T-0)**

- 3.1.4.2.5. Exposures could potentially be greater than OEL, as determined by BE IAW 29 CFR 1910.134(d)(3); **(T-0)**
- 3.1.4.2.6. Emergency situations require the use of respiratory protection IAW 29 CFR 1910.134(d)(2). **(T-0)**
- 3.1.4.3. Voluntary use respirators will not be worn by government employees in AF industrial workplaces, except for filtering facepiece devices (FFPDs) and when authorized by BE. **(T-3)**
- 3.1.4.3.1. FFPDs (e.g., N-95, N-99, etc.) are the only type of respiratory protection that may be worn at the discretion of a government employee “for comfort purposes” in an AF industrial workplace and must be approved and authorized by BE. **(T-1)**
- 3.1.4.3.2. Personnel who wear voluntary-use FFPDs must receive initial and annual training from the worksite supervisors on the appropriate use of the device, including its limitations per 29 CFR 1910.134 (c)(2) and 29 CFR 1910.134 Appendix D. **(T-0)**
- 3.1.5. Maintenance and care of respirators will be executed IAW 29 CFR 1910.134(h). **(T-0)** Additionally,
- 3.1.5.1. This program element shall be managed at the unit level with support from BE. **(T-3)**
- 3.1.5.2. Units shall document any maintenance activities (e.g., filter change-out, oil changes, routine preventive maintenance, etc.) on pumps on AF Form 1071, *Inspection/Maintenance Record* or IAW written worksite-specific procedures. **(T-3)**
- 3.1.6. Breathing air quality and use will be executed 29 CFR 1910.134(i). **(T-0)** Additionally, this program element shall be coordinated with BE, Fire, and Occupational Safety at the installation level. **(T-3)**
- 3.1.7. Identification of filters, cartridges, and canisters will be executed IAW 29 CFR 1910.134(j). **(T-0)** Additionally,
- 3.1.7.1. This program element shall be managed at the unit level with support from BE. **(T-3)**
- 3.1.7.2. BE will recommend and approve filters, cartridges, and canisters for use in the workplace. **(T-1)**
- 3.1.7.3. In coordination with BE, the unit shall develop a change out schedule to be included in the written worksite-specific procedures. **(T-3)**
- 3.1.7.4. Used respirator filters/cartridges shall be characterized, managed, and disposed of according to applicable federal, state, and local environmental regulations and per guidance in AFI 32-7042, *Waste Management*. **(T-0)** Supervisors shall consult with installation environmental management to determine proper procedures. **(T-3)**
- 3.1.8. Training and information will be executed IAW 29 CFR 1910.134(k). **(T-0)** Additionally,
- 3.1.8.1. Worksite supervisor training will also include:
- 3.1.8.1.1. Training for worksite supervisors shall be developed by BE and PH. **(T-1)**

- 3.1.8.1.2. A qualified BE shall certify completion of the training by a worksite supervisor. **(T-3)**
- 3.1.8.2. Respirator user training
 - 3.1.8.2.1. In coordination with BE and PH, worksite supervisors shall develop training material which, at a minimum, meets the criteria in 29 CFR 1910.134(k)(1). **(T-3)**
 - 3.1.8.2.2. Worksite supervisors will document demonstration of knowledge IAW local policy. **(T-3)**
- 3.1.8.3. Retraining shall be conducted at a frequency commensurate with 29 CFR 1910.134(k). **(T-0)**
- 3.1.8.4. All training is to be documented on an AF Form 55, *Employee Safety and Health Record*, or electronic equivalent. **(T-1)**
- 3.1.9. Program evaluations will be executed IAW 29 CFR 1910.134(l). **(T-0)** Additionally,
 - 3.1.9.1. Worksite-specific program evaluations shall be:
 - 3.1.9.1.1. Conducted, at least annually, by the unit Respiratory Protection Program Administrator; **(T-3)**
 - 3.1.9.1.2. Briefed to the unit commander; **(T-3)**
 - 3.1.9.1.3. Documented and results shared with the installation Respiratory Protection Program Administrator (BE). **(T-3)**
 - 3.1.9.2. Installation Respiratory Protection Program Review shall:
 - 3.1.9.2.1. Be conducted, at least annually; **(T-1)**
 - 3.1.9.2.2. Include a review of all worksite-specific program evaluations and plans IAW 29 CFR 1910.134(c); **(T-0)**
 - 3.1.9.2.3. Include a review of compliance rates and trends over the past year; **(T-3)**
 - 3.1.9.2.4. List number of workplaces and personnel on the program; **(T-3)**
 - 3.1.9.2.5. Include a review of rosters (Respiratory Protection Program roster, DOEHRS, ASIMS, and shop roster); **(T-3)**
 - 3.1.9.2.6. Evaluate other installation organizations, units, and individuals authorized to perform fit testing other than BE; **(T-3)**
 - 3.1.9.2.7. Be briefed to the Aerospace Medicine Council (AMC), OEHWG Committee, and installation Environment, Safety, and Occupational Health (ESOH) Council; **(T-1)**
 - 3.1.9.2.8. Be documented in DOEHRS-IH IAW USAFSAM Respiratory Protection DOEHRS Data Entry Guide. **(T-0)**
 - 3.1.9.3. Both the worksite-specific program evaluation and the installation review shall ensure the criteria of 29 CFR 1910.134(l) are met as well. **(T-0)**
- 3.1.10. Recordkeeping will be executed IAW 29 CFR 1910.134(m). **(T-0)** Additionally,

3.1.10.1. BE will document both industrial respirator fit test and CBRN mask QNFT in DOEHRS-IH. **(T-0)**

3.1.10.2. Three (3) copies of any fit test results will be generated and filed: one copy will be maintained or provided to BE, one copy will be maintained by the worksite supervisor, and one copy will be maintained by the individual. **(T-3)**

3.2. Worksite-specific Program Plan.

3.2.1. Respiratory Protection Program worksite-specific written plan shall be developed by the worksite-specific supervisors (unit Respiratory Protection Program Administrators) with assistance from BE IAW 29 CFR 1910.134(c). **(T-0)**

3.2.2. Worksite-specific written plans shall include:

3.2.1.1. Program element recommendations based on the most recent BE OEH Assessment and special surveillance. **(T-3)**

3.2.1.2. Worksite-specific procedures for the nine applicable program elements required by 29 CFR 1910.134(c)(1) and this instruction. **(T-3)**

3.2.1.3. A listing of all BE approved respirators and the associated process to which the control is linked. **(T-3)**

3.2.1.4. Worksite-specific procedures for emergency situations, including respirator malfunction. **(T-3)**

Chapter 4

CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR (CBRN) MASK QUALITATIVE FITTEST (QNFT)

4.1. General Requirements. Chemical, Biological, Radiological and Nuclear (CBRN) mask QNFT applies to uniquely military respiratory protective devices (CBRN masks) designed specifically for use in a CBRN environment; but does not include the aircrew CBRN mask.

4.1.1. The Air Force target Fit Factor is 2000. CBRN mask QNFT will be accomplished in accordance with T.O. 14P4-20-1, *Operator and Field Maintenance Manual for Mask, Chemical-Biological: Joint Service General Purpose, Field, M-50. (T-1)*

4.1.2. BE will ensure performance of M-50 preventive maintenance checks and services as defined in T.O. 14P4-20-1. **(T-1)**

4.1.3. During military unique operations (e.g., wartime employment of CBRN agents, wartime readiness training exercises, home station defense during military CBRN events, but excluding home station hazardous material response), NIOSH-certified respirators are not required, and enrollment in the base Respiratory Protection Program is not required.

4.2. Completion of CBRN mask QNFT.

4.2.1. Each military member must complete CBRN mask QNFT upon receiving a deployment tasking and/or IAW installation deployment plan. **(T-1)**

4.2.2. Testing Protocol will be accomplished IAW [Attachment 4](#). **(T-1)**

4.2.3. If a member does not achieve the target fit factor, BE will provide written notification to the unit commander. **(T-3)** The member's status on a Unit Type Code (UTC) (e.g. waiver or removal) is a risk decision to be made by their unit commander. **(T-3)**

4.2.4. Members with a shaving waiver will receive a fit test and if the member does not achieve the target fit factor, failure will be addressed IAW [para 4.2.3](#). **(T-3)**

4.2.5. Member must re-accomplish CBRN mask QNFT if a new size or type of mask is issued; the wearer gains/losses 10% or more of body weight following completion of the initial QNFT; or the wearer experiences extensive dental work, facial surgery, scarring, or disfigurement. **(T-1)**

4.3. Recordkeeping.

4.3.1. BE will document CBRN mask QNFT in DOEHRS-IH. **(T-1)**

4.3.2. Three (3) copies of the CBRN mask QNFT will be generated and filed: one copy maintained in the mask carrier, one copy maintained by the Unit Deployment Manager (UDM) in the individual's mobility folder, and one copy maintained by the individual. **(T-3)**

4.3.3. UDMs will ensure a copy of each individual's CBRN mask QNFT documentation is located in the appropriate mobility folder (or equivalent). (T-2)

DORTHY A. HOGG, Lieutenant General, USAF,
NC
Surgeon General

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

DoDI 6055.05 *Occupational and Environmental Health*, 11 Nov 2008

DoDI 6055.01 *DoD Safety and Occupational Health Program*, 13 Oct 2013

DoDD 4715.1E, *Environment, Safety, and Occupational Health*, 19 Mar 2005

Title 29 CFR 1910.134 *Respiratory Protection*, 7 Aug 2012

5 U.S.C. 552a, *Records Maintained on Individuals*, 7 Jan 2011

NFPA 1852, *Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA)*, 1 Jan 2013

AFMAN 33-363, *Management of Records*, 1 Mar 2008

AFI 33-360, *Publications and Forms Management*, 1 Dec 2015

Title 29 CFR, Part 1910, *Occupational Safety and Health Standards*, 11 Jun 2008

NIOSH, *Certified Equipment List*, current edition (updated quarterly)

AFI 48-145, *Occupational and Environmental Health Program*, 11 Jul 2018

AFI 90-801, *Environment, Safety, and Occupational Health Councils*, 4 Aug 2016

T.O. 14P4-20-1, *Operator and Field Maintenance Manual for Mask, Chemical-Biological: Joint Service General Purpose, Field, M-50*, 30 May 2008

AFH 23-123, Vol 2, Parts 1-4, *Integrated Logistics System-Supply*, 8 Aug 13

NIOSH, *Guide to Industrial Respiratory Protection*, Sept 1987

AFI 44-117, *Ophthalmic Services*, 14 May 2015

AFI 32-7042, *Waste Management*, 7 Nov 2014

Adopted Forms

AF Form 55, *Employee Safety and Health Record*

AF Form 847, *Recommendation for Change of Publication*

AF Form 1071, *Inspection/Maintenance Record*.

AF Form 1996, *Adjusted Stock Level*

AF Form 2773, *Respirator Selection Worksheet*

AF Form 422, *Notification of Air Force Member's Qualification Status*,

Abbreviations and Acronyms

AF—Air Force

AFH—Air Force Handbook

AFMAN—Air Force Manual

AFMOA—Air Force Medical Operations Agency

AFMSA—Air Force Medical Support Agency

AFMS—Air Force Medical Service

AFR—Air Force Reserve

ANG—Air National Guard

ASIMS—Aeromedical Services Information Management System

BE—Bioenvironmental Engineering

CBRN—Chemical, Biological, Radiological and Nuclear

CFR—Code of Federal Regulations

DHP—Defense Health Program

DOEHRS-IH—Defense Occupational Environmental Health Reporting System Industrial Hygiene

DRU—Direct Reporting Unit

ESOH—Environment, Safety, and Occupational Health

FFPD—Filtering Facepiece Device

FOA—Forward Operating Agency

GSU—Geographically Separated Unit

IDLH—Immediately Dangerous to Life and Health

LRS—Logistics and Readiness Squadron

MAJCOM—Major Command

MEQ—Medical Evaluation Questionnaire

MSE—Medical Surveillance Examination

NFPA—National Fire Protection Agency

NIOSH—National Institute for Occupational Safety and Health

OEH—Occupational and Environmental Health

OEL—Occupational Exposure Limit

OEHWG—Occupational and Environmental Health Working Group

OPR—Office of Primary Responsibility

OSHA—Occupational Safety and Health Administration

PH—Public Health

PLHCP—Physician or other Licensed Healthcare Provider

QNFT—Quantitative Fit test

SCBA—Self-contained Breathing Apparatus

SG—Surgeon General

T.O—Technical Order

UDM—Unit Deployment Manager

UTC—Unit Type Code

USAFSAM—United States Air Force School of Aerospace Medicine

Terms

Approved Respirator—An approved device designed to provide the wearer with respiratory protection against inhalation of harmful atmospheres. The respirator shall be tested and listed by the National Institute for Occupational Safety and Health (NIOSH). Refer to the latest NIOSH Certified Equipment List for approved respirators. If a tight-fitting respirator is used, the respirator shall have a design which allows the following tests to be performed: (1) Positive and negative pressure tests, and (2) Fit test.

Uniquely Military Respiratory Protective Device—A respiratory protection device which is exempt from the requirements of the OSH Act of 1970 per Executive Order 12196 and 29 CFR 1960.2. In most cases, these devices are not approved by NIOSH and are specifically designed for use in military CBRN environments.

Occupational Exposure Limit—OELs are limits of exposure established to protect personnel from hazardous OEH threat exposures. OELs apply to OEH threat exposures for individuals and/or similarly exposed groups of individuals as established in AFMAN 48-146. **NOTE:** See 29 CFR 1910.134 for additional definitions.

Attachment 2

SELECTION OPTIONS FOR ESCAPE-ONLY RESPIRATORS

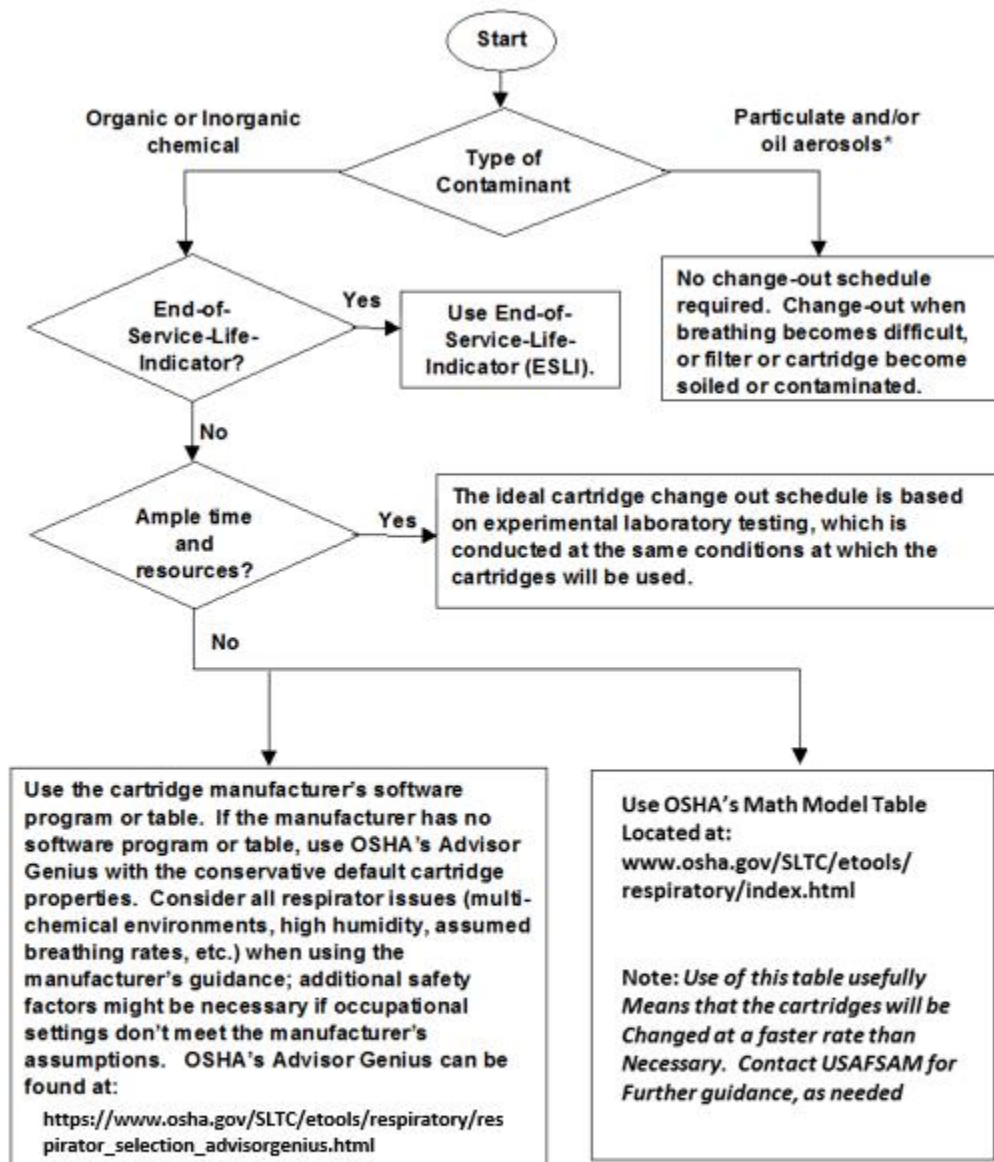
Table A2.1. Selection Options for Industrial Use Escape-Only Respirators.

| ESCAPE CONDITIONS | TYPE OF RESPIRATOR ¹ |
|---|---|
| Short distance to exit, no obstacles (no oxygen deficiency) | Any escape-only respirator ² (canister respirator) or half-mask or facepiece (canister respirator) |
| | Any escape SCBA having a suitable service life ³ |
| | Any acceptable device for entry into emergency situations |
| Long distance to exit or obstacles along the way (no oxygen deficiency) | Any air-purifying respirator |
| | Any escape SCBA having a suitable service life ³ |
| | Any self-contained self-rescuer having a suitable service life |
| Potential oxygen deficiency | Any escape SCBA having a suitable service life ³ |
| | Any self-contained self-rescuer having a suitable service life |
| NOTES: | |
| ¹ Respirators provided only for escape from Immediately Dangerous to Life and Health (IDLH) atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used. | |
| ² Escape-only respirators are designed for use during escape from IDLH or non-IDLH atmospheres. It may consist of a half-mask facepiece or mouthpiece, appropriate air-purifying element for the contaminant, and associated connections. The manufacturer designates maximum use concentrations for these types of respirators. | |
| ³ Escape SCBA can have rated service lives of 3 to 60 minutes. | |

Attachment 3

ESTIMATING CARTRIDGE SERVICE LIFE FLOWCHART

Figure A3.1. Estimating Cartridge Service Life Flowchart.



** Note: Oil aerosols are typically friction reducing oils and require R- or P-series filters. R-series filters must be changed out after each 8-hour shift. Oils are hydrocarbon liquids with high boiling points, high molecular weights, and low vapor pressure. Oil aerosols can consist of mineral, vegetable, animal and synthetic substances that are slippery, combustible, and soluble in organic solvents such as ether but not soluble in water. Oil aerosols tend to degrade filter efficiency.*

Attachment 4

CBRN MASK QNFT FLOWCHART

A4.1. QNFT Flowchart. BE Flights should use the flowchart to guide them through the QNFT process.

Figure A4.1. QNFT Flowchart.

