

CESO

Regulation
No. 385-1-90

30 April 2020

Safety
RESPIRATORY PROTECTION POLICY

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*This regulation supersedes ER 385-1-90, dated 28 March 1983.

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1. Purpose. The purpose of this document is to require and guide U.S. Army Corps of Engineers (USACE) organizations in the development of respiratory protection programs. These programs are designed to prevent unacceptable occupational exposure to airborne chemical or physical agents and to comply with the Occupational Safety and Health Administration (OSHA) standards and Department of the Army regulations on respiratory protection.
2. Applicability. This regulation applies to the entire USACE Direct Reporting Unit including all Command organizations within the Divisions, Districts, Labs, and Centers where employees use respiratory protection. Due to the unique nature of Diving Operations and their breathing air systems, the requirements for Diving Operations are in Engineering Regulation (ER) 385-1-86. The breathing air requirements in this document are not applicable to USACE Diving Operations.
3. Distribution. Approved for public release; distribution is unlimited. This document will be effective six months after the date of publication.
4. References. See Appendix A.
5. Records Management (Recordkeeping) Requirements. The records management requirement for all record numbers, associated forms, and reports required by this regulation are addressed in the Army Records Retention Schedule—Army (RRS-A). Detailed information for all related record numbers are located in ARIMS/RRS-A at <https://www.arims.army.mil>. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS-A, see Department of the Army (DA) Pamphlet 25-403, Guide to Recordkeeping in the Army.
6. Glossary. See Glossary.
7. Background. This policy guides USACE Divisions, Districts, Labs, and Centers to develop and implement respiratory protection programs at Divisions, Districts, Labs, Centers, and Civil Works Operating Projects where employees use respirators to comply with industrial hygiene exposure standards or regulations.

NOTE: If this policy represents a change to bargaining unit employees' conditions of employment, labor relations obligations must be met prior to implementing this policy for collective bargain employees. Officials who are responsible for implementing this ER should consult with their activity's legal advisor to determine management's obligations under local collective bargaining agreements.

8. Responsibilities.
 - a. USACE Headquarters.
 - (1) The Chief, Safety and Occupational Health Office, will:
 - (a) Staff, update, and review of the respiratory protection policy for USACE;

- (b) Provide guidance and direction on respirator use and selection to the field; and
- (c) Maintain liaison with Army Staff and other government agencies to ensure that the USACE respiratory protection policy meets legal statute, Army requirements, and adequately protects employees.

(2) The Human Resource Directorate will coordinate any changes in the respiratory protection policy with the appropriate bargaining units.

b. Major Subordinate Command (MSC)/Division Commanders. MSC commanders are responsible for program management and quality assurance of all USACE respiratory protection programs within their division.

c. Commanders at all levels will:

(1) Identify projects and operations where respiratory protection is required due to unacceptable occupational exposures to employees, infeasible engineering controls, or regulatory requirement;

(2) Develop a respiratory protection policy requiring the development and implementation of respiratory protection programs for projects and operations identified in paragraph 7.c.(1); and

(3) Continually prioritize funding for implementation of respiratory protection programs, product or process substitution, and/or engineering controls so respiratory protection might be eliminated in the future.

d. Each Command Safety and Occupational Health (SOH) Office will:

(1) Develop and lead implementation of the respiratory protection policy identified in paragraph 7.c.(2) for the district;

(2) Assign a Respiratory Protection Program Administrator (RPPA) meeting the knowledge, skills, and abilities outlined in Appendix E to administer the district's program and support command organization's Respiratory Protection Program Managers;

(3) Conduct appropriate industrial hygiene assessments and evaluations to determine requirements for respiratory protection use; and

(4) Provide leadership and industrial hygiene technical assistance to command organizations responsible for developing respiratory protection programs. Industrial hygiene technical assistance may include, but is not limited to:

(a) Assisting command organizations to determine which processes and tasks require respiratory protection and which employees need to be in the respiratory protection program;

(b) Assisting command organizations with selection of respirators that are both appropriate for the hazard(s) and practicable;

(c) Assisting command organizations to determine cartridge service life where end of service life indicators are not available for cartridges used in air purifying respirators (for additional information see: https://www.osha.gov/SLTC/etools/respiratory/change_schedule.html);

(d) Providing or arranging, through occupational health organizations, for medical surveillance and fit testing services to qualify command organization personnel to wear respirators;

(e) Providing guidance and/or requirements for training respirator users; and

(f) Auditing command organizations for compliance with respiratory protection program requirements.

e. Command organizations requiring a respiratory protection program will:

(1) Develop and implement a respiratory protection program;

(2) Designate a Respiratory Protection Program Manager (RPPM), meeting the knowledge, skills, and abilities outlined in Appendix E, to administer the command organization's respiratory protection program;

(3) Request an industrial hygiene assessment be conducted by the command SOH Office to evaluate any processes which may require respiratory protection due to potential or actual chemical/substance exposure or an occupational health regulatory standard;

(4) Supply respiratory protection for employees participating in the respiratory protection program;

(5) Verify position hazard analyses reflect employee respirator use, respirator type, frequency of use, respiratory hazard, training, medical clearance, and fit testing requirements;

(6) Provide training prior to use and annually thereafter to employees participating in the respiratory protection program. Maintain training documentation in a training file or the employee's personnel file; and

(7) Arrange for fit testing of all respiratory protection program participants required to use tight-fitting respirators.

f. Respirator user will:

(1) Attend all prescribed respiratory protection training, medical appointments, and fit tests;

(2) Be familiar and comply with all applicable elements of the respiratory protection program;

(3) Properly wear, maintain, store, and inspect assigned respirators according to manufacturer's recommendations and training;

(4) Report respirator use issues to the command organization's RPPM and their immediate supervisor;

(5) Be clean shaven where the required respirator seals to the skin; and

(6) Participate in the development and evaluation of the command organization's respiratory protection program.

9. Program Elements. Organizations responsible for developing respiratory protection programs must ensure the following policies are incorporated into programs:

a. Medical Evaluations: All personnel enrolled in the respiratory protection program must undergo a medical evaluation prior to first-time use. The medical evaluation will include review of the employee's completed OSHA Respirator Medical Evaluation Questionnaire (29 CFR 1910.134, Appendix C) and a physical exam by a physician or other licensed healthcare professional (PLHCP). The PLHCP, based on review of the questionnaire and results of the physical exam, will determine the frequency with which an employee requires a physical exam, not to exceed four (4) years. If the PLHCP denies clearance to wear a respirator, the employee will be prohibited from performing tasks requiring the use of a respirator.

(1) Reevaluations of the OSHA Respiratory Medical Evaluation Questionnaire must be completed annually, when an employee reports medical signs and symptoms related to the ability to use a respirator including difficulty breathing and excessive physical and physiological burden, as directed by the PLHCP, and when observations from the supervisor, RPPM, or RPPA indicate a need for employee reevaluation, such as observing extreme difficulty correctly wearing the respirator. Upon review of the questionnaire, the PLHCP may order a physical reexamination. Employees must maintain their medical clearance consistent with the requirements of the PLHCP's certification.

(2) On-line medical clearance for respirator use can be provided by a medical screening service on an as-needed basis when requested by the RPPM and approved by the RPPA at the command SOH Office. On-line medical screening services must be supervised by a PLHCP.

b. Fit Testing. Respirator users required to wear tight-fitting respirators must be fit tested to ensure a proper face to facepiece seal. All tight fitting, required respirators must be quantitatively or qualitatively fit tested with the same make, model, style, and size of respirator that will be used prior to initial use. Fit testing must be performed initially when a respirator user becomes an active member of the RPP and then at least annually. Fit testing must be repeated if it is suspected the face to facepiece seal for a respirator user has been compromised. This will occur if the physical condition of the employee changes, which may affect the face seal, such as weight gain or loss of 20 pounds or more, significant facial scarring in the area of the facepiece, significant dental changes, or cosmetic surgery. Qualitative fit testing is allowed for all half facepiece and full face respirator use applications when exposure levels in the work environment do not exceed 10 times the acceptable occupational exposure limit. Quantitative fit

testing is required for full face, tight-fitting full face respirators when exposure levels are anticipated to exceed 10 times acceptable occupational exposure limits and all other required tight-fitting respirator use applications. Fit test records must be kept for one year or until the next fit test. Fit-testing data is to be entered into the Defense Occupational and Environmental Health Readiness System-Industrial Hygiene (DOEHRS-IH) database by the RPPA.

c. Training. Training requirements for the RPPA, RPPM, and respirator user are found in Appendix E.

d. Voluntary Use. The voluntary use of a filtering facepiece respirator is permitted when exposures to any substance does not exceed acceptable occupational exposure limits, is not required by specific occupational health or industrial hygiene regulations, and when the use of such respirator itself does not create a hazard. A hazard assessment or exposure assessment must be completed by the RPPA or district industrial hygienist to confirm respiratory protection is not required. Voluntary use filtering facepieces will only be made available for work-related tasks. Voluntary use filtering facepieces are to be used according to manufacturer's directions. Employees electing to voluntarily use respiratory protection must review and sign a Voluntary Use Agreement (29 CFR 1910.134, Appendix D); a copy of this signed form must be retained in the employee's personnel file.

e. Escape, Response, and Confined Spaces. Where applicable, respirator use for emergency escape, employee rescue, and confined space entry must be identified in respiratory protection programs and accurately reflect requirements defined in organizational escape, emergency response, and confined space entry programs. Escape respirators are intended for escape purposes only and are not intended to be used for rescue, response, cleanup, maintenance, or repair. Escape-only respirators are not subject to fit-testing and medical clearance. Rescue and entry into potentially immediately dangerous to life and health (IDLH) atmospheres will only be conducted using self-contained breathing apparatus (SCBA) respirators, which require medical clearance, fit testing, and training. Respirators for response operations will be selected based on the identified hazards and risk. District industrial hygienists can assist in proper selection.

f. Certification. All respiratory protection worn during USACE operations must be certified by the National Institute for Occupational Safety and Health (NIOSH).

g. Respirators for Quality Control (QC) Oversight. The QC oversight organization is responsible for assigning a qualified RPPM to develop and implement a respiratory protection program when USACE employees must wear a respirator to comply with a contractor's safety plan in order to perform QC tasks. It is generally acceptable for the QC organization employees to use respirators that are equivalent to respirators specified in the contractor's safety plan, but the QC organization is responsible for ensuring the respiratory protection program accounts for use of equivalent respirators. Respirators for QC of chemical warfare material cleanup activities must be Chemical, Biological, Radiological, and Nuclear certified by NIOSH.

FOR THE COMMANDER:

7 Appendices
(See Table of Contents)



KIRK E. GIBBS
COL, EN
Chief of Staff

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Appendix A
References

Code of Federal Regulations (CFR), 10 CFR 20, Standards for Protection Against Radiation
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29 CFR 1910.134, Respiratory Protection
https://www.ecfr.gov/cgi-bin/text-idx?SID=3f143a08ca2c1456070ee90353647b70&mc=true&node=pt29.5.1910&rgn=div5#se29.5.1910_1134

29 CFR 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters
<https://www.ecfr.gov/cgi-bin/text-idx?SID=3f143a08ca2c1456070ee90353647b70&mc=true&node=pt29.9.1960&rgn=div5>

42 CFR 84, Approval of Respiratory Protective Devices
<https://www.ecfr.gov/cgi-bin/text-idx?SID=b794656969350a83d76525a01e508e5e&mc=true&node=pt42.1.84&rgn=div5>

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<https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/605501p.pdf?ver=2018-11-19-110543-180>

National Institute for Occupational Safety and Health (NIOSH), Standard Respirator Testing Procedures
https://www.cdc.gov/niosh/npptl/stps/respirator_testing.html

NIOSH, Respirator Selection Logic 2004
<https://www.cdc.gov/niosh/docs/2005-100/pdfs/2005-100.pdf?id=10.26616/NIOSH PUB2005100>

Army Regulation (AR) 11-34, Army Respiratory Protection Program
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/r11_34.pdf

AR 25-400-2, The Army Records Information Management System (ARIMS)
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/r25_400_2.pdf

AR 385-10, The Army Safety Program
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN16777_ARN16343_AR385_10_FINAL.pdf

Defense Logistics Agency Instruction (DLAI) 4145.25/AR 700-68, Storage and Handling of Liquefied and Gaseous Compressed Gasses and their Full and Empty Cylinders
<https://www.dla.mil/Portals/104/Documents/DispositionServices/ddsr/docs/cylinderjointpub.pdf>

Department of Army (DA) Pamphlets, PAM 385-10, Army Safety Program
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/p385_10.pdf

PAM 385-24, The Army Radiation Safety Program
https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/p385_24.pdf

Engineer Manual (EM) 385-1-1, Safety and Health Requirements Manual
https://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_385-1-1.pdf?ver=2015-04-09-142531-467

Engineer Regulation (ER) 385-1-40, Occupational Health Program
https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_385-1-40.pdf?ver=2013-09-08-233233-393

American National Standards Institute (ANSI)/American Industrial Hygiene Association (AIHA) Z88.10, Respirator Fit Testing Methods
<https://webstore.ansi.org/Standards/AIHA/ANSIAIHAZ88102010>

ANSI/AIHA Z88.6, Respiratory Protection - Respirator Use - Physical Qualifications for Personnel
<https://webstore.ansi.org/Standards/AIHA/ANSIAIHAZ882006>

Appendix B
Respiratory Protection Program Template

Instructions: The template is designed to work in conjunction with the district’s respiratory protection policy. It is recommended the organization’s respiratory protection program manager (RPPM) work with the command SOH office industrial hygienist or the respiratory protection program administrator (RPPA) to edit this template. When properly edited and supported by districts and organization management, this template can serve as the organization’s respiratory protection program (RPP).

[PROJECT NAME] RESPIRATORY PROTECTION PROGRAM (RPP)

1. Staff Responsible for Development and Implementation of Respiratory Protection Programs (RPP)

a. Command Safety Office Industrial Hygienist, Respiratory Protection Program Administrator (RPPA), [Name of Individual] – The district command safety office designates [Name of Individual] to provide industrial hygiene and respiratory protection technical support to the RPPM. If necessary, the command organization will provide financial support for industrial hygiene technical assistance. The RPPA must be qualified as a GS 0690 11 or above to provide technical support.

b. Respiratory Protection Program Manager (RPPM) [Name of Individual] – The district command organization designates [Name of Individual] as the RPPM to develop and implement a RPP for the following operations and activities [Name the Operations and/or Activities]. The RPPM, [Name of Individual] must successfully complete OSHA Training Institute Course 2225, or Navy RPPM course (Respiratory Protection Program Management (713U)); or any respiratory protection course that has at least 32 hours of respirator training to include hands-on (not online) training within one year of designation.

2. Selection of Respirators – The RPPM, working with the RPPA, will evaluate occupational exposure and relevant occupational health regulations for work activities and project personnel at the command organization. Use this table to define the respirators to be used to protect employees while performing tasks and activities for the command organization.

RPPM – Complete the following table. Delete examples.

Employee Name	Task Requiring Respirator	Chemical/Substance, Regulation or Safety Plan Requiring Respirator Use	Respirator Type
John Doe	Cavitation Repair	Cr ⁺⁶ Fume	Supplied Air Helmet
Jane Doe	Asbestos Maintenance	Asbestos Fibers	Half Face APR (P 100)
Tim Doe	QC Oversight	HTRW Site Inspection	Contractor plan defines half face APR

3. Respirator Use Medical Evaluation – The RPPM with command organization management will verify all employees required to use respiratory protection are current with medical evaluation requirements. Medical evaluations are required initially when respirator users become active members of the RPP. The physician or licensed healthcare professional (PLHCP), based on review of the questionnaire and results of the physical exam, will determine the frequency with which an employee requires a physical exam, not to exceed four (4) years. If the PLHCP denies clearance to wear a respirator, the employee is prohibited from performing tasks requiring the use of a respirator.

Reevaluations of the OSHA Respiratory Medical Evaluation Questionnaire be completed annually, when an employee reports medical signs and symptoms related to the ability to use a respirator including difficulty breathing and excessive physical and physiological burden, as directed by the PLHCP, and when observations from the supervisor, RPPM, or must RPPA indicate a need for employee reevaluation, such as observing extreme difficulty correctly wearing the respirator. Upon review of the questionnaire, the PLHCP may order a physical reexamination.

Employees must maintain their medical clearance consistent with the requirements of the PLHCP's certification. Follow guidance in ER 385-1-90 for further information. The RPPM will coordinate with the employee and command organization management to ensure the users comply with initial medical evaluation requirements and remain current with user-specific periodic medical evaluations. Records concerning user initial and periodic evaluations will be kept and updated by command organization management.

RPPM – verify all respirator users covered by this RPP comply with the initial and user-specific periodic medical evaluation frequency requirements.

4. Fit Testing – Respirator users required to wear tight-fitting respirators must be fit tested to ensure a proper face to facepiece seal. All tight fitting, required respirators must be quantitatively or qualitatively fit tested with the same make, model, style, and size of respirator that will be used prior to initial use. Fit testing must be performed initially when a respirator user becomes an active member of the RPP and then at least annually. Fit testing must be repeated if it is suspected the face to facepiece seal for a respirator user has been compromised. This will occur if the physical condition of the employee changes, which may affect the face seal, such as weight gain or loss of 20 pounds or more, significant facial scarring in the area of the facepiece, significant dental changes, or cosmetic surgery. Qualitative fit testing is allowed for all half facepiece and full face respirator use applications when exposure levels in the work environment do not exceed 10 times the acceptable occupational exposure limit. Quantitative fit testing is required for full face, tight-fitting full face respirators when exposure levels are anticipated to exceed 10 times acceptable occupational exposure limits and all other required tight-fitting respirator use applications. Fit test records must be kept for one year or until the next fit test. Fit-testing data is to be entered into the Defense Occupational and Environmental Health Readiness System-Industrial Hygiene (DOEHRS-IH) database by the RPPA.

RPPM – verify all respirator users covered by this RPP comply with initial, annual, and repeat fit testing requirements. Define specific activities where qualitative fit testing is allowed and

which activities require quantitative fit testing.

Respirator User	Respirator Type	Fit Testing Method	Work Activity
Tim Smith	Half Face APR	Qualitative	Asbestos Management

5. Proper Use of Respirators – Respirator users will use respirators according to the manufacturer’s use instructions and will ensure facial hair does not interfere with face to facepiece seal when being fit tested and when wearing required, tight-fitting respirators. Respirator users will perform a user seal check when required tight-fitting respirators are put on to ensure good fit and function. Equipment used to generate breathing air for supplied air respirators must be capable of producing breathing air in compliance with 29 CFR 1910.134 paragraph (i) breathing air quality and use.

RPPM – Ensure respirator users understand how to use assigned respirators and the importance of a good face to facepiece seal. Ensure supplied breathing air meets 29 CFR 1910.134(i) requirements for quality and is monitored during use.

6. Respirator Maintenance – Respirator users, with support from the RPPM, are responsible for the cleaning, inspecting, storing, and maintaining assigned respirators. Command organization management will arrange for the facilities and supplies needed for respirator storage, care, and maintenance. Respirator manufacturer instructions are the primary guidance to be followed for respirator care and maintenance. See also Respirator Cleaning Procedures in Appendix C of ER 385-1-90.

RPPM – Describe facilities and supplies used for respiratory cleaning, maintenance, and storage for respirator users participating in this RPP.

7. Air Quality for Atmosphere Supplying Respirator Systems – Provisions in 29 CFR 1910.134(i) are used for atmosphere-supplying respirators (i.e. supplied-air and SCBA) at [office symbol].

Compressors used for breathing air must be tested semiannually (twice a year, i.e. 6 months apart). Oil-lubricated compressors must be equipped with carbon monoxide alarms, high-temperature alarms, sorbent beds, and compressor failure alarms. The RPPM will confirm the maintenance of the compressor and its components (ref: EM 385-1-1 Section 05.G.07.a).

The air intake for compressors must be located in an uncontaminated area and in a manner that prevents potentially contaminated air from entering the intake. If an airline respirator is used in an environment that has the potential to become IDLH, the respirator user must have an alternate source of breathing air for escape from the environment.

When feasible, use oil-less air compressors dedicated to supplied air respirator systems.

Use the table below to document the brand name of the air compressor(s), compressor’s location, and maintenance information.

Compressor Name	Compressor Location	Maintained/Tested by	Location of Records	Maintenance/Test Date

RPPM – If applicable, add in the above section. If it is not applicable because air supplied respirators are not used, delete this section.

8. Respirator Use Training for the End User – The RPPM will provide respirator use training annually to respirator users covered by this RPP. The RPPM will develop annual training requirements with assistance from the district industrial hygienist or RPPA. In most instances, respiratory protection training for the respirator user can be provided in about two hours on site. The command organization is responsible for tracking annual training and ensuring respirator users remain current with training requirements. Respirator training for respirator users must address each of the following elements:

- a. Why use of the respirator is necessary and why it is important to ensure proper fit, use, and maintenance;
- b. Limitations and capabilities of assigned respirators;
- c. How to use emergency escape respirators;
- d. Steps for inspecting, donning, doffing, using, and checking the seals of the assigned respirator;
- e. Respirator maintenance and storage procedures;
- f. Recognizing signs and symptoms of exposure indicating respirator failure; and
- g. Elements of the project specific RPP.

RPPM – Coordinate with the RPPA to develop an annual training plan. Adjust the training topics annually to reflect occupational exposures and respirator use. Work with the command organization to ensure all respirator users served by this RPP remain current with annual training requirements.

9. Voluntary Use of Respirators – The voluntary use of a filtering facepiece respirator is permitted when exposures to any substance does not exceed acceptable occupational exposure limits, is not required by specific occupational health or industrial hygiene regulations, and when the use of such respirator does not itself create a hazard. A hazard assessment or exposure assessment must be completed by the RPPA or district industrial hygienist to confirm that

respiratory protection is not required. The RPPA will determine what type of respirator will be used based on the situation and the substance(s) in the work environment. Voluntary use filtering facepieces will only be made available for work-related tasks. Voluntary use filtering facepieces are to be used according to manufacturer's directions. Employees electing to voluntarily use respiratory protection must review and sign a Voluntary Use Agreement (29 CFR 1910.134, Appendix D); a copy of this signed form must be retained in the employee's personnel file.

RPPM – Document the voluntary users covered by the RPP and the activities where voluntary use of filtering facepieces are acceptable.

10. Project RPP Evaluation – The RPPM with technical support from the industrial hygienist (or RPPA) and command organization management support will periodically review the RPP for effectiveness.

RPPM – Specify the frequency and objectives of RPP evaluations.

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Appendix C Respirator Cleaning Procedures

Respirator Cleaning Procedures from 29 CFR 1910.134, Appendix B-2

C-1. Give first priority to the use of respirator manufacturer recommendations for cleaning respirators. Remove filters, cartridges, canisters, speaking diaphragms, demand and pressure valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.

C-2. Wash components in warm (43° C [110°F] maximum) water with a mild detergent or a cleaner recommended by the manufacturer.

a. A stiff bristle (not wire) brush may be used to help remove the dirt.

b. If the detergent or cleaner does not contain a disinfecting agent, respirator components should be immersed for 2 minutes in one of the following:

(1) A bleach solution (concentration of 50 parts per million of chlorine). Make this by adding approximately one milliliter of laundry bleach to one liter of water at 43°C (110°F).

(2) A solution of iodine (50 parts per million iodine). Make this in 2 steps:

(a) First, make a tincture of iodine by adding 6-8 grams of solid ammonium iodide and/or potassium iodide to 100 cc of 45% alcohol, approximately.

(b) Second, add 0.8 milliliters of the tincture to one liter of water at 43° C (110°F) to get the final solution.

(3) Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.

c. Rinse components thoroughly in clean, warm (43°C [110°F] maximum), preferably running, water. Note: The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces could cause dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts, if not completely removed.

d. Drain components.

e. Air dry components or hand dry components with a clean, lint-free cloth.

f. Reassemble the facepiece components. Replace filters, cartridges, and canisters, if necessary (for testing).

g. These procedures are general in nature. Employee may use the respirator manufacturer's cleaning recommendations, provided such procedures are as effective as those listed above.

Appendix D
Voluntary Use Agreement

Appendix D to Section 29 CFR 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit and not required by occupational health regulation, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the allowable occupational exposure limits. If the employer provides respirators for voluntary use, or if the employee provides their own respirator, precautions need to be taken to be sure the respirator itself does not present a hazard.

Employee should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator limitations.
2. Chose respirators certified for use to protect against the contaminant of concern. NIOSH certifies respirators. A label or statement of certification should appear on the respirator packaging. It states what the respirator is designed for and the level of protection.
3. Do not wear a respirator into atmospheres containing contaminants for which it is not designed to protect against. For example, a respirator designed to filter dust particles will not protect against gases, vapors, or very small solid particles or fumes or smoke.
4. Keep track of respirator so it's not mistakenly used by someone else.
5. I have read and understand **Appendix D to 29 CFR 1910.134**.

Employee's Name		RPPM's Name		RPPA's Name	
Employee's Signature		RPPM's Signature		RPPA's Signature	
Date of Signature		Date of RPPM's Signature		Date of RPPA's Review	

Give 1 copy to employee and keep 1 copy in employee's file.

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Appendix E

Training (Knowledge, Skills, and Abilities) Requirements for Personnel Involved with the Respiratory Protection Program

Respiratory Protection Program Administrator (RPPA)

1. Knowledge Level – Administers the organization’s RPP consistent with applicable standards and guidelines; has a high level of knowledge about pertinent standards and workplace-specific hazards or knows where to obtain that information; and has experience and training commensurate with the complexity of the RPP to be administered. The RPPA must be a GS-0690-11 or above Industrial Hygienist or Safety Professional sufficiently trained in Industrial Hygiene that he/she would meet the OPM requirements for [0690 series](#). Required knowledge, skills, and abilities for an RPPA include ability to perform industrial hygiene exposure and regulatory evaluations and evaluations for the selection of respiratory protection equipment. Required training includes successful completion of the OSHA Training Institute Course 2225 or Navy RPPM course (Respiratory Protection Program Management (713U)); or any respiratory protection course that has at least 32 hours of respirator training to include hands-on (not online) training within one year of designation.

2. Respiratory Protection Program Administrator Requirements Knowledge

- a. Develops and administers the district RPP.
- b. Interfaces with PLHCPs and other disciplines as related to medical qualification of employees to use respirators and, when appropriate, bioassay and other aspects of medical surveillance that may reflect the adequacy of respiratory protection.
- c. Identifies standard requirements for written RPP content, including policies, procedures, and requirements for program updates.
- d. Works with the RPPM to identify all aspects of the site-specific RPP content (all respirators, training, qualifications, implementation for use, and program recordkeeping).
- e. Identifies appropriate place of RPP in the context of hierarchy of controls, feasibility, and employee safety during RPP implementation.
- f. Applies knowledge of procedures and guidelines outlined in the RPP to the worksite.

3. Medical Evaluation Knowledge

- a. Complies with the Health Insurance Portability and Accountability Act (HIPAA) for employee medical information.
- b. Directs follow-up examinations within the RPP.
- c. Directs use of an OSHA Respirator Medical Evaluation Questionnaire prior to respirator

use.

d. Understands what medical conditions interfere with safe respirator use.

e. Identifies variables that may negatively affect an employee's health.

4. Hazard Determination Knowledge Level - Assesses reasonable determination of employee exposures from all available risk assessment data.

5. Respirator Selection Knowledge

a. Understands relationship between monitoring data and respirator selection.

b. Selects appropriate type of respirators that provide adequate protection for each contaminant present or anticipated.

c. Understands how workplace and employee factors such as environmental temperature affect respirator performance and reliability in order to properly align respirator use with the specific work situation.

d. Identifies respirator(s) to be used in Immediately Dangerous to Life and Health (IDLH) and non-IDLH atmospheres.

e. Accesses additional technical resources on respirator certifications for unique applications.

f. Reviews investigations of defects or circumstances of respirator failure.

g. Verifies respirator certification status, as appropriate.

6. Proper Use of Respirator Knowledge

a. Creates appropriate exit procedures to be used if air delivery is terminated to air-supplied respiratory protection equipment during use and ensures employees are trained on procedures.

b. Knows the impact of workplace and employee factors on respirator performance and reliability to be able to monitor for appropriate and effective use of respirators.

Respiratory Protection Program Manager (RPPM)

1. Knowledge Level – Has direct contact with employees who wear respirators. Has working knowledge of the work area processes, respirator use in the work area, and is able to communicate with employees' supervisors or take corrective action when employees are not properly wearing respiratory protection. Required training includes successful completion of the OSHA Training Institute Course 2225, or Navy RPPM course (Respiratory Protection Program Management (713U)); or any respiratory protection course that has at least 32 hours of respirator

training to include hands-on (not online training) training within one year of designation.

2. Respiratory Protection Program Requirements Knowledge

- a. Ensures compliance with RPP requirements.
- b. Implements and demonstrates knowledge of the industrial hygiene hierarchy of controls.
- c. Demonstrates an awareness of when employees should be included in the RPP.
- d. Distinguishes between voluntary and required respirator use and knows RPP requirements in voluntary-use situations.
- e. Models/demonstrates behavior consistent with RPP requirements when in the workplace.
- f. Develops and administers the project- or site-specific respiratory program.

3. Medical Evaluation Knowledge

- a. Complies with the Health Insurance Portability and Accountability Act (HIPAA) for employee medical information.
- b. Assesses current assigned workforce medical evaluation status to allow each employee to wear a respirator.
- c. Identifies changes in workplace conditions or employee's health that may prompt additional evaluations.
- d. Understands employee limitations on respirator use related to the medical or workplace conditions in which the respirator will be used.

4. Hazard Determination Knowledge

- a. Identifies hazard profile and physical state of hazards for work area in conjunction with RPPA.
- b. Recognizes foreseeable emergencies during respirator use (e.g., insufficient oxygen or harmful levels of chemical, biological, or radiological contaminants) and effects on the human body.
- c. Identifies engineering and administrative controls being applied for the atmospheric hazard(s) and communicates the necessity of respiratory protection.

5. Respirator Selection Knowledge

- a. Identifies the types of respirators issued to employees and required for specific work

environments.

b. Recognizes when a negative-pressure air-purifying respirator is inadequate and supplied air-respiratory protection is required.

c. Determines the combination of respirator and cartridge or filter to be deemed appropriate for a given task and hazard profile.

6. Proper Use of Respirator Knowledge

a. Ensures respirator users have no interference with facepiece seal or valve function.

b. Ensures respirator users inspect their respirator and perform a user seal check before every use.

c. Knows the physiological hazards for employees when wearing a negative-pressure or air-supplying respirator.

d. Integrates all aspect of PPE ensemble with respirator.

End User/Employee

1. Knowledge Level – Works under close supervision of RPPM to ensure compliance with proper procedures; uses the proper respiratory protection equipment when and where appropriate and consistent with the organization’s RPP.

2. Respiratory Protection Program Requirements Knowledge

a. Understands the organization has an RPP and knows where to go and/or whom to ask for information about the RPP.

b. Knows who is designated as the RPPA and RPPM.

c. Demonstrates an awareness and understanding of physiological limitations created by the respirator.

d. Understands the functions, capabilities, and limitations of assigned respirators.

3. Medical Evaluation Knowledge

a. Understands need for initial medical evaluation.

b. Assesses and understands medical evaluation outcome before using a respirator.

c. Communicates to a responsible individual, as identified in the RPP, changing physical conditions that affect the ability to wear a respirator and/or the quality of fit for the respirator.

- d. Knows what medical conditions interfere with/prevent respirator use.
4. Hazard Determination Knowledge Level - Knows whom to contact for information regarding hazards and foreseeable emergencies requiring respirator use.
5. Proper Use of Respirator Knowledge
- a. Assesses conditions that require emergency exit from the work area and leaves work area when necessary.
 - b. Dons and doffs (puts on and takes off) respirator properly.
 - c. Understands personal medical conditions that interfere with respirator use.
 - d. Locates “safe area” where respirator can be removed.
 - e. Performs inspection of respirator and user seal check at each donning.
 - f. Properly disposes of used cartridges, filters, canisters, and cleans respirator.
 - g. Demonstrates proper use of a respirator in IDLH environments and performs proper exit procedures when using air supplied respiratory protection equipment if air supply is disrupted during use.

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APPENDIX F

Quick Reference Table for Respirator Use Requirements

Respirator Type	Respiratory Protection Requirements Based on Respirator Use						
	29 CFR 1910.134 Appendix D	Written Program	Medical Evaluation	Fit Test	Exposure Assessment	Training	Facepiece Interference Allowed
Voluntary Use Dust Mask/Filtering Facepiece (N-95)	Y	N	N	N	Y	App D	Y
Loose Fitting Respirator	N	Y	Annual	N	Y	Annual	Y
Emergency Escape Respirators	N	Y ¹	N	N	Y	Y	Y
All Other Respirators	N	Y	Annual	Annual	Y	Annual	N

¹ If a command organization does not have operations that require respirator use, but does have emergency escape respirators, program requirements for the escape respirators may be included in another command program document (e.g., the command’s emergency action plan or emergency response plan) in lieu of a respiratory protection program.

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Glossary

Abbreviations and Terms

Air-purifying Respirator – A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Assigned Protection Factor (APF) – A measure of the overall effectiveness of a respirator can be expected to provide 95% of the time. For example, an APF of 10 means that type of respirator (if used properly) can be safely used in an atmosphere that has a hazardous concentration of up to 10 times the occupational exposure limit for that hazard.

Atmosphere supplying respirator – A respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere and includes supplied-air respirators (SARs) and SCBA units.

Contaminant – Any harmful, irritating, or nuisance material that is foreign to the normal atmosphere. Contaminants can be particulates, gases, vapors, or fibers.

Elastomeric Respirator – A respirator which is a tight-fitting, air purifying respirator with replaceable filters or cartridges attached to a rubber or silicone facepiece.

Filtering facepiece (N-95, dust mask) – 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. Filtering facepieces must be approved by the NIOSH.

IDLH – Immediately Dangerous to Life and Health. The term immediately dangerous to life or health (IDLH) is defined by NIOSH as exposure to airborne contaminants that is "likely to cause death or immediate or delayed permanent adverse health effects or prevent escape from such an environment." OSHA's (1910.134(b)) Respiratory Protection Standard defines the term as "an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere." IDLH values are often used to guide the selection of breathing apparatus made available to workers or firefighters in specific situations.

Loose-fitting facepiece – A respiratory inlet covering designated to form a partial seal with the face.

Oxygen Deficient – Any atmosphere that contains less than 19.5% oxygen by volume.

Negative Pressure Respirator (tight fitting) – A respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

Qualitative Fit Test – A pass/fail test to assess the adequacy of respirator fit by subjectively measuring the amount of leakage into the respirator.

Quantitative Fit Test – An assessment of the adequacy of respirator fit by numerically measuring

the amount of leakage into the respirator.

Respiratory Protection Program Administrator (RPPA) – A Safety and Occupational Health Professional, preferably an industrial hygienist, that meets the knowledge, skills, and abilities requirements outlined in Appendix F and is designated in writing by the District or FOA Commander.

Respiratory Protection Program Manager (RPPM) – A USACE employee at the operations level, on site, managing the facility respiratory protection program in conjunction with the RPPA. This person will meet the knowledge, skills, and abilities for a RPPM outlined in Appendix F.

Tight-fitting Facepiece – A respiratory inlet covering that forms a complete seal with the face.

Voluntary use of a Respirator – This occurs once the employer has conducted an exposure assessment of an employee’s work area or operation to determine there are no respiratory hazards; however, the employee is more comfortable with wearing a respirator and requests its use. USACE policy only allows the use of filtering facepieces voluntarily. Voluntary use respirators will only be made available for work-related tasks. Voluntary use filtering facepieces are to be used according to manufacturer’s directions. If employees use a filtering facepiece voluntarily, a signed copy of Appendix D must be kept in the employee’s personnel file.