

**NORTH CAROLINA CENTRAL UNIVERSITY
RESPIRATORY PROTECTION PLAN
IN COMPLIANCE WITH
29 CFR 1910.134**

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Record of Changes

Date	Page/Section	Changes Made	Entered By
3/16/20	All	New Document	K. Long Witter

Record of Annual Review

Date	Reviewed By

I. Purpose

The purpose of the Respiratory Protection Program is to protect employees against harmful dusts, fogs, fumes, mists, gases, smokes, sprays, bioaerosols, and vapors, through the use of engineering controls, administrative controls, or personal protective equipment (PPE). If effective engineering or administrative controls are not feasible, respirators shall be provided by North Carolina Central University (NCCU) when such equipment is necessary to protect the health of the employee. Department Directors, Managers and Supervisors in coordination with NCCU Environmental Health and Safety (EHS) shall determine which operations or conditions necessitate the use of respirators.

II. Scope

This program applies to all employees of the NCCU who may be required to wear respirators during normal work operations or while performing duties within the scope of their job description. Employees participating in the respiratory protection program at NCCU do so at no cost to them. Expenses associated with training, medical evaluations and respiratory protection equipment are the responsibility of NCCU.

In addition, any employee who voluntarily wears a respirator when a respirator is not required is subject to all the same medical and training requirements and are provided with certain information on the voluntary use of a respirator.

III. Definitions and Abbreviations

Air purifying respirator - a type of respirator with an air-purifying filter, cartridge, or canister, that removes specific air contaminants by passing ambient air through the air purifying element

Exposure - a concentration of an airborne contaminant that would occur in the absence of no respiratory protection

Filter- a component used in respirators to remove solid or liquid aerosols from the inspired air

Fit test - a protocol to quantitatively or qualitatively evaluate the fit of a tight-fitting respirator on an individual

National Institute for Occupational Safety and Health (NIOSH) - Certifies and approves respiratory protective devices governed by 42 CFR 84

Occupational Safety and Health Administration (OSHA) - promulgated regulations regarding respirator use and maintenance which was codified in 29 CFR 1910.134 and other standards

Respirator – Personal protective equipment designed to protect the wearer from inhaling hazardous atmospheres, including particulate matter such as dusts and airborne microorganisms, as well as hazardous fumes, vapors and gases

IV. Responsibilities

Employees

- 1) Comply with all policies and regulations regarding respirator use
- 2) Participate in medical clearance procedures, training sessions, tests for competency, and fit-tests
- 3) Follow all protocols for respirator inspection, use, cleaning and maintenance
- 4) Report any problems to supervisor or EHS
- 5) Notify EHS of any changes in medical condition or work practice that could impact their medical clearance for respirator use
- 6) Notify EHS of any changes in physical condition (such as facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight) that may affect respirator fit, or when they find the fit of the respirator unacceptable

Departmental Managers/Supervisors

- 1) Perform risk assessments to identify positions and applications that require the use of respiratory protection
- 2) Facilitate employee medical clearance, training, competency validation, and fit testing during work hours
- 3) Notify EHS of personnel changes for positions requiring respiratory protection
- 4) Purchase appropriate respirators, cartridges, and approved replacement parts for employees included in the respiratory protection program. Only NIOSH-approved respirators are used
- 5) Ensure personnel have completed all required training, medical clearance and testing prior to issuing respiratory protection

Environmental Health and Safety

- 1) Provide personnel to serve as the Respiratory Protection Program Administrator
- 2) Consult with groups to assess respiratory protection needs on campus
- 3) Maintain documentation of training, competency, medical clearance and fit testing, and make this documentation available to inspectors and supervisors with employees enrolled in the respiratory protection program
- 4) Provide initial and annual training and assessment on the use and care of respirators
- 5) Evaluate the respiratory protection program for compliance
- 6) Review and update this respiratory protection plan annually and as needed
- 7) Approve all voluntary respirator use and keep records of employees and departments who use them
- 8) Track and notify personnel who require medical respiratory questionnaire review and/or fit testing

V. General

If a specific job task might require the use of a respiratory protective device, a comprehensive workplace and agent-specific risk assessment will be conducted. If an exposure situation exists, the feasibility of engineering or administrative controls are always considered first. If these preferred methods of controlling exposure are not feasible, the respiratory protection program will be implemented.

VI. Respiratory Medical Questionnaire

The use of a respirator may impose an additional stress on the worker. Each employee, prior to being assigned to tasks requiring the use of a respirator, shall complete the OSHA Respiratory Protection Medical Questionnaire set forth in 1910.134(e)(2)(ii) and have it reviewed and approved by a medical professional prior to wearing a respirator.

The medical questionnaire is designed to determine that the employee is physically able to perform assigned tasks while wearing a respirator. This assessment is reviewed and updated if there is a change in the employee's medical condition or level of effort during tasks requiring respirator use. The employer shall ensure that a follow-up medical examination is provided for any employee identified through review of the questionnaire by a medical professional that demonstrates the need for a follow-up medical examination. The follow-up medical examination shall include any medical tests, consultations, or diagnostic procedures that an occupational health provider deems necessary to make a final determination.

The medical questionnaire and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire shall be administered in a manner that ensures that the employee understands its content.

In determining the employee's ability to use a respirator, NCCU shall obtain a written recommendation regarding the employee's ability to use the respirator from a medical professional that reviews the Respiratory Medical Questionnaire and provides the following information:

- 1) Limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used
- 2) Whether or not the employee is medically able to use the respirator, the need, if any, for follow-up medical evaluations
- 3) A statement that the employee has been provided a copy of the written recommendation by the reviewer

At a minimum, the employer shall provide additional medical evaluations that comply with the requirements of this section if:

- 1) An employee reports medical signs or symptoms that are related to ability to use a respirator [1910.134(e)(7)(i)].
- 2) Health provider, supervisor or EHS determines that an employee requires reevaluation [1910.134(e)(7)(ii)].
- 3) Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation [1910.134(e)(7)(iii)]
- 4) A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee [1910.134(e)(7)(iv)].

VII. Respirator Selection

Respirators are selected based on task- and job-specific risk assessment which identifies hazards and the concentration of the contaminant to which an employee is exposed. Based on the determined risk, the appropriate respirator is selected using information in Table 1.

Table 1. Assigned Protection Factors Used to Determine Respirator Requirements based on 29 CFR 1910.134(d)(3)(i)(A)

Type of respirator	Quarter mask	Half mask	Full facepiece	Helmet/hood	Loose-fitting facepiece
1. Air-Purifying Respirator	5	10	50
2. Powered Air-Purifying Respirator (PAPR)	50	1,000	25/1,000 ¹	25

¹Respirator manufacturer must provide test results that demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. Absent such testing, all PAPRs with helmets/hoods are to be treated as loose-fitting facepiece respirators and receive an APF of 25.

VIII. Fit Testing

All individuals required to use a tight-fitting respirator must undergo OSHA-approved quantitative fit-testing initially and at least annually thereafter to ensure an effective mask-to-face seal. Individuals must be fit-tested with the same make, model, style, and size of respirator that will be used before initial use of their respirators and at least annually thereafter. Medical review provider will retain required records for medical clearance and NCCU EHS will maintain fit test records in compliance with the standard.

If after passing a quantitative fit test, the employee subsequently notifies Supervisor and EHS that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator and to be retested. An additional fit test is indicated whenever the employee reports, or the employer, supervisor or EHS makes visual observations of, changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are

not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

IX. Voluntary Respirator Use

If an employee expresses a desire to wear a respirator during certain operations that do not require respiratory protection because the employee's exposure is below regulatory or recommended exposure limits, EHS will review each of these requests on a case-by-case basis.

If the use of respiratory protection in a specific case will not jeopardize the health or safety of the employee(s), a respirator may be provided for voluntary use. Respirator use on a voluntary basis is subject to certain requirements of this program depending on the type of respiratory device worn. At a minimum, all employees voluntarily wearing a respirator will be provided with "Information for Employees Using Respirators When Not Required" (Appendix A).

Employees voluntarily wearing a respirator will be subject to the medical evaluation, maintenance, and storage elements of this program.

X. Preventative Conditions

Tight-fitting respirators shall not be worn if any condition that interferes with the face-to-face piece seal or valve function. [1910.134(g)(1)(i)(B)] exists.

Such conditions include but are not limited to facial hair that comes between the sealing surface of the face piece and the face or that interferes with valve function. [1910.134(g)(1)(i)(A)], items of clothing, personal protective equipment, or glasses that interfere with the seal of the face piece to the face of the user. Only loose-fitting respirators are acceptable under these conditions.

XI. Respirator Issuance

When respirator use is required, all respirators, cartridges, and approved replacement parts will be purchased by NCCU. Respirators will be issued to an employee by their Supervisor once all required training, medical clearance, and testing has been confirmed by EHS.

XII. Respirator Use

Respirators will be used in accordance with specific procedures described by the manufacturer. Prior to each use in a contaminated atmosphere, the user of a tight-fitting respirator will perform a seal check and adjust the mask until a good fit is achieved.

If an individual wears corrective glasses or goggles or other personal protective equipment, that individual shall ensure that such equipment is worn in a manner that does not interfere with the seal of the face piece to the face of the user.

XIII. Maintenance

Each respirator user will have the responsibility for maintaining his/her own respirator and replacing as needed.

XVIII. Training

Employees required to use respirators will receive initial and annual training, which will be coordinated by EHS. Training will include the respiratory hazards to which employees are potentially exposed, instructions related to the respirator they use, and demonstrate competency in donning/doffing the respirator.

Employees are required to be trained and demonstrate knowledge of the following:

- 1) Why the respirator is necessary and how improper fit, usage or maintenance can compromise protection afforded by respirator
- 2) Limitations and capabilities of respirator
- 3) How to properly care for, use, and store the respirator
- 4) How to recognize when the respirator is not functioning properly
- 5) What to do if the respirator malfunctions
- 6) How to recognize medical signs and symptoms that may limit or prevent effective use of respirators
- 7) General requirements of this respiratory protection plan

The training shall be conducted at the workplace during normal work hours. Training is provided in a manner that is understandable to the employee. Initial training must be conducted prior to requiring the employee to use a respirator in the workplace.

Retraining shall be administered annually, or when the following situations occur:

- 1) Changes in the workplace or the type of respirator render previous training obsolete
- 2) Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill
- 3) Any other situation arises in which retraining appears necessary to ensure safe respirator use

XIX. Program Evaluation

EHS may conduct periodic evaluations of the workplace to ensure that the written respiratory protection program is being properly implemented, and to consult employees to ensure that they are using the respirators properly and that the program continues to be effective.

Employees who are required to use respirators will be afforded the opportunity to give their views on program effectiveness and to identify any problems. Problems that are identified during this will be examined by EHS and the Safety Committee and if possible, be corrected.

Factors to be assessed include, but are not limited to:

- 1) Respirator fit (including the ability to use the respirator without interfering with

- effective workplace performance)
- 2) Appropriate respirator selection for the hazards to which the employee is exposed
 - 3) Proper respirator use under workplace conditions the employee encounters

XX. Record Keeping

The following records will be maintained by EHS:

- 1) A copy of this completed respiratory program
- 2) Employees' latest fit-testing results
- 3) Employee training records
- 4) Written recommendations from occupational medical provider

Employees, Supervisors, and inspectors will have access to these records.

Appendix A Information for Voluntary Respirator Use

NCCU makes provisions to allow employees to voluntarily wear respirators when exposures are below regulatory or recommended exposure limits and respirator use has been determined by risk assessment to be unnecessary. Each request for the voluntary use of a respirator is approved by EHS to ensure the proper respirator is selected and employees are informed and trained regarding the proper use, maintenance, and care of their respirator. If a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the employee.

Employees who voluntarily wear a respirator must ensure they do the following:

- 1) Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator's limitations
- 2) Verify the respirator selected is certified for use to protect against the contaminant of concern. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you
- 3) Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke
- 4) Keep track of your respirator so that you do not mistakenly use someone else's respirator

By signing below, I certify that I understand the information provided to me and that I will comply with all required training and medical evaluations required to voluntarily wear a respirator while performing my job.

Printed Name

Signature

Date

Name/Signature EHS Official