



AUBURN

UNIVERSITY

RESPIRATOR PROTECTION PROGRAM

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Prepared April 2011
Revised March 2012

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1.0 PURPOSE

The purpose of this Respiratory Protection Program is to protect the University's employees from exposure to respiratory hazards in the workplace. Auburn University (University) has determined that employees in the areas listed in Appendix A may be exposed to respiratory inhalation hazards greater than the pertinent permissible exposure standards. While the University's goal is to eliminate these respiratory hazards through engineering controls, such as local ventilation or substitution of hazardous materials, some may not be feasible or will not eliminate the risk. Under such conditions the University requires that employees use respirators and other personnel protective equipment to reduce exposure hazards.

This respirator protection program is designed for air purifying respirators (APRs) and atmosphere supplying respirators (ASRs). APRs use cartridges or canisters constructed of carbon or paper-based filters to remove contaminants from the air. APRs can only be utilized in atmospheres where there is sufficient breathable oxygen. There are two types of ASRs Air Supplied Respirators (ASRs) and Self Contained Breathing Apparatus (SCBA). ASRs are atmosphere-supplying respirators for which the source of breathing air is not designed to be carried by the user. SCBA is an atmosphere-supplying respirator for which the source of breathing air is designed to be carried by the user. ASRs must be provided with auxiliary self-contained air supply that can be used if the primary supply fails. These may be referred to as Combination Air Supplied Respirators (CASRs).

This written program spells out Respirator:

- Selection;
- Issuance;
- Use;
- Medical Evaluations;
- Fit-Testing;
- Cleaning, Storage, Inspection And Repairing/Discarding;
- Breathing Air Quality;
- Training, and;
- Evaluation.

Workplace-specific standard operating procedures (SOP) require:

- Consideration of the unique conditions in specific work area or requirement;
- Specific work area evaluation;
- Description of workplace conditions and required actions;
- Proper respirator use and maintenance, and;
- Elimination of respirator misuse.

There is no cost to the employees that are required to participate in this Respiratory Protection Program. The expenses associated with the Respiratory Protection Program i.e., work area assessments, medical evaluations, training, and respiratory protection equipment is the responsibility of the applicable University operational unit.

There are situations in which a University employee may wish to voluntarily wear a respirator while performing specific operations for which a respirator is not required. Respirators may be voluntarily utilized by employees in situations where the Program Administrator has evaluated the situation and determined there is no hazard presented by the operation or the respirator. In such cases the University will provide a respirator for voluntary use during that specific operation.

2.0 SCOPE AND APPLICATION

This program applies to all employees who wear respirators during their normal work operations or during specialized procedures i.e., maintenance and operations, hazardous material sampling or spill response. The requirement to wear a respirator is determined based on the employee's potential exposure to respiratory hazards. Appendix A includes lists of the work operations for which respirators are required and describes the appropriate type of respirator for each process.

Employees who voluntarily choose to use a respirator when it is not required are subject to the provisions of Section 5.0 this program.

3.0 PROGRAM ADMINISTRATION

3.1 Program Administrator

The Occupational Safety and Health Program Manager of Risk Management and Safety is responsible for administering the Respiratory Protection Program. Duties of the Program

Administrator include:

- Identifying work areas, processes or tasks that require employees to wear respirators, and evaluating hazards.
- Selection of respiratory protection options.
- Periodic monitoring of respirator use to ensure that they are used in accordance with their certifications.
- Arranging for and/or conducting training.
- Evaluating the program.
- Updating written program

3.2 Operational Unit Administrator

The applicable Operational Unit is responsible for appointing an Administrator whom will be responsible for implementing the following portions of the Respiratory Protection Program:

- Providing respiratory protection equipment.
- Arranging quantitative fit testing.
- Administering the medical surveillance program.
- Maintaining non-medical related records required by the program.
- Authorization of payment of the expenses associated with the Respiratory Protection Program i.e., work area assessments, medical evaluations, training, and respiratory protection equipment, etc. on behalf of the cost center.

3.3 Work Area Supervisors

Work area supervisors are responsible for the daily supervision and oversight of the proper use of respirators and ensuring that the Respiratory Protection Program is implemented in their particular work areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties include:

- Verifies that employees under their direct supervision have received appropriate training, fit testing, annual medical evaluation and appropriate respirators and accessories.
- Awareness of tasks requiring the use of respiratory protection.
- Ensuring the proper use of respiratory protection when necessary.
- Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.

- Ensuring that respirators fit well and do not cause discomfort.
- Continually monitoring work areas and operations to identify respiratory hazards.
- Coordinating with the Program Administrator on how to address respiratory hazards or other concerns regarding the program.
- Taking respirators that are defective or have defective parts out of service.
- Repairing and/or adjusting respirators.

3.4 Employees

All employees have the responsibility to wear their respirator when and where required and in the manner in which they were trained. Employees must also:

- Care for and maintain their respirators as instructed, and store them in a clean sanitary location.
- Inform their supervisor if the respirator no longer fits well, and request a new one that fits properly.
- Inform their supervisor or the Program Administrator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding the program.

4.0 PROGRAM ELEMENTS

4.1 Selection Procedures

The Program Administrator will select respirators to be used, based on the hazards to which employees are exposed and in accordance with all Occupational Safety and Health Administration (OSHA) standards.

4.1.1 Hazard Evaluation

The Program Administrator will manage a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during specialty procedures or emergency situations. Potential workplace and user factors that could influence the selection of respirator types will be considered.

The hazard evaluation will include:

- Identification and development of a list of hazardous substances used in the workplace, by department, or work process.

- Review of work processes to determine where potential exposures to these hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing process records, and talking with employees and supervisors.
- Reviewing work practices and engineering controls, such as ventilation, substitution, etc. to determine if modifications, maintenance, or substitution could reduce respiratory hazards.
- Exposure monitoring to quantify potential hazardous exposures.

The workplace and user factor evaluation will include:

- Review of the equipment or tools utilized.
- Review of the temperature or relative humidity conditions.
- Review of ergonomics.

4.1.2 Updating the Hazard Assessment

The Program Administrator must revise and update the hazard assessment as needed (i.e., any time work process changes may potentially affect exposure) or if employees feel that respiratory protection is needed during a particular activity.

4.2 Medical Evaluation

Employees who are required to wear respirators or who voluntarily wear respirators, other than dusk masks, must have a medical evaluation before they can wear a respirator on the job. The Operational Unit Administrator will ensure that employees covered by the Respiratory Protection Program are certified by a physician as capable of utilizing the prescribed respirator without posing a risk to the employee's health.

All examinations and questionnaires are to remain confidential between the employee and the physician.

4.2.1 Initial Medical Evaluations

No employee will be allowed to wear a respirator without receiving medical clearance. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

A University approved physician or other licensed health care professional (PLHCP) will provide the medical evaluations. Medical evaluation procedures are as follows:

- The medical evaluation will be conducted using the questionnaire provided in Appendix C-2 or in Adobe Acrobat format upon request. The Operational Unit Administrator will provide a copy of this questionnaire to all employees requiring medical evaluations. The questionnaire may not be viewed by any employee manager(s). The employee completes the questionnaire, places it into a provided envelope, seals it and returns it to the Operational Unit Administrator.
- The Operational Unit Administrator, with assistance from the Work Area Supervisor as required, will complete the Respirator Program Request form provided in Appendix C-1 or in Adobe Acrobat format upon request and forward it and the sealed Respirator Medical Evaluation Questionnaire to the PLHCP. The employee may be certified based on the questionnaire or a physical examination may be required. A “yes” answer to any question in part A of the Respirator Program Request form requires a physical examination.
- To the extent feasible, the supervisor will assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to the PLHCP for medical evaluation.
- Employees will be permitted to fill out the questionnaire during normal work hours.
- Follow-up medical exams will be granted to employees as required by the standard, and/or as deemed necessary by the PLHCP.
- All employees will be granted the opportunity to speak with the PLHCP about their medical evaluation, if they so request.
- The Operational Unit Administrator, with assistance from the Work Area Supervisor as required, will provide the PLHCP with a list of hazardous substances by work area, and for each employee requiring evaluation: his or her work area or job title, proposed respirator type and weight, length of time required to wear respirator, expected physical work load (light, moderate, or heavy), potential temperature and humidity extremes, and any additional protective clothing required.
- The Program Administrator will provide the PLHCP with a copy of this program and a copy of the Respiratory Protection Standard.
- The PLHCP will provide the Operational Unit Administrator with a written recommendation. The employee will receive a copy of the PLHCP's written recommendations from the Operational Unit Administrator. Information concerning diagnosis, test results, and other confidential medical information will be retained by the PLHCP and will not be disclosed to the University.

4.2.2 Special Medical Provisions

4.2.2.1 Hearing Aids

Employees required to wear hearing aids while wearing totally-encapsulating chemical-protective suit must receive a written statement from the PLHCP at the time of his/her medical evaluation that their use is not likely to adversely affect the health or safety of the employee or other employees if the hearing aids fail during the time the totally-encapsulating chemical-protective suit is donned.

At the discretion of the PLHCP additional medical information may be required to ascertain the employee's health status and suitability for wearing totally-encapsulating chemical-protective suit.

4.2.2.2 Positive Pressure Air Purifying Respirator

Any employee required for medical reasons to wear a positive pressure air purifying respirator will be provided with a powered air purifying respirator.

4.2.3 Periodic Medical Evaluations

After an employee has received medical clearance and begun to wear a respirator, additional medical evaluations will be provided:

- Annually.
- When an employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing.
- The physician or supervisor informs the Program Administrator that the employee needs to be reevaluated.
- Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation.
- A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

4.2.4 Fit Testing

Employees who are required to wear a tight fitting facepiece will be fit tested:

- Prior to being allowed to wear any respirator with a tight fitting facepiece.

- Annually.
- When there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).
- After medical certification.

Employees will be fit tested with the make, model, and size of respirator that they will actually wear. Employees will be provided with several models and sizes of respirators so that they may find an optimal fit. The employee will perform a seal check prior to being fit-tested (refer to Appendix D). A description of the fit-testing procedure will be reviewed with the employee prior to the test. Respirator facepieces from different manufacturers with different sizes and models will be available for selection.

A University approved PLHCP will provide the fit test to employees wearing tight fitting facepiece respirators. The fit test will be provided on an annual basis or more often as required. Fit test will be provided in accordance with Quantitative fit Test (QNFT) protocols, as required.

The Operational Unit Administrator may request that the Program Administrator considered an alternative contractor to provide fit test for employees wearing tight fitting facepiece respirators. The Program Administrator will consider such requests provided the alternative contractor conducts fit test in accordance with OSHA approved QLFT or QNFT protocols, as required.

4.4 Respirator Use

4.4.1 General Use Procedures

- Employees will use their respirators under conditions specified by this program and in accordance with their training. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.
- All employees shall conduct user seal checks each time that they wear their respirator. Employees shall use either the positive or negative pressure check specified in Appendix D.
- Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial deformities or scars, facial hair, or missing dentures that prevents them from achieving a good seal. Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the face-to-facepiece seal.
- Employees wearing corrective glasses or goggles, or other personal protective equipment, must wear the equipment in a manner that prevents interference with the seal of the

facepiece to the face.

4.4.2 Respirator Malfunction/Maintenance

All employees shall be permitted to leave the work area to maintain their respirator for the following reasons:

- Clean their face or respirator facepiece to prevent respirator induced skin or eye irritation.
- Clean their respirator if the respirator is impeding their ability to work.
- If there is facepiece leakage.
- If vapor or gas breakthrough is detected.
- If there is a change in breathing resistance.
- Change filters or cartridges.
- Replace parts
- Inspect respirator if it stops functioning as intended.

Employees should notify their supervisor before leaving the work area.

4.4.3 Cleaning

Respirators are to be regularly cleaned and disinfected at the designated respirator cleaning station in accordance with the manufacturer's recommendations using the manufacturer's cleaning wipe after each use.

The following procedure is to be used when cleaning and disinfecting respirators on a weekly basis:

- Disassemble respirator, removing any filters, canisters, or cartridges.
- Wash the facepiece and associated parts in a mild detergent with warm water. Do not use organic solvents.
- Rinse completely in clean warm water.
- Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs.
- Allow the facepiece to dry in a clean area.
- Reassemble the respirator and replace any defective parts.
- Place in a clean, dry plastic bag or other air tight container.

The Operational Unit Administrator will ensure an adequate supply of appropriate cleaning and disinfection material at the cleaning station. If supplies are low, employees should contact their

supervisor, who will inform the Operational Unit Administrator.

4.4.4 Maintenance, Change Schedules and Storage

Respirators are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer.

4.4.4.1 Inspection

All employees will clean and inspect their own air-purifying respirator in accordance with the provisions of this program and the manufacturer's recommendations. Respirators will be inspected prior and after each use. The following checklist will be used when inspecting respirators:

- Facepiece:
 - cracking, tears, or holes
 - facepiece distortion
 - cracked or loose lenses/faceshield
- Headstraps :
 - breaks or tears
 - broken buckles
- Valves :
 - residue or dirt
 - cracks or tears in valve material
- Filters/Cartridges :
 - approval designation
 - gaskets
 - cracks or dents in housing
 - proper cartridge for hazard

Respirators that are defective or have defective parts shall be taken out of service or immediately repaired by work area supervisors. When a respirator is taken out of service, the respirator will be tagged out of service, and the employee will be given a replacement of similar make, model, and size. All tagged out respirators will be segregated.

Repairs or adjustments to respirators will be done by work area supervisors. Only NIOSH-approved manufacturer's replacement parts designed for that respirator will be used. Repairs will be made in accordance with the manufacturer's recommendations and specifications regarding the type and extent of repairs to be performed.

4.4.4.2 Storage

Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. All employees will store their own air-purifying respirator in accordance with the provisions of this program. Employees will store their respirator in a plastic bag in their own locker. All employees will have their name on the bag and that bag will only be used to store that employee's respirator. It will be stored in the face-up position.

4.4.4.3 Change Schedules

Cartridges must be changed in accordance with an established schedule. Employees wearing particulate cartridges for protection against dust and other particulates shall change the cartridges on their respirators according to the manufacturer's specification or when they first begin to experience difficulty breathing (i.e., resistance) while wearing their masks.

A change-out schedule for other cartridges will be established by using the manufacturer's cartridge life calculator. (Please refer to appendix A).

4.5 Training

The Program Administrator will provide training to respirator users and their supervisors on the contents of the Respiratory Protection Program and their responsibilities. Employees will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to using a respirator in the workplace or prior to supervising employees that must wear respirators.

The training course will cover the following topics:

- Respiratory Protection Program;
- Respiratory hazards encountered and their health effects, proper selection and use of respirators;
- Limitations of respirators;
- Respirator donning and user seal (fit) checks;
- Fit testing;

- Emergency use procedures;
- Maintenance and storage, and;
- Medical signs and symptoms limiting the effective use of respirators.

Employees will be retrained annually or as needed (i.e., if they change departments and need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training through hands-on exercises and a written test. Respirator training will be documented by the Operational Unit Administrator and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested. Please refer to Appendix E.

4.6 Breathing Air Quality

The Operational Unit Area Administrator will coordinate deliveries of compressed air with the vendor and require certification that the air in the cylinders meets the specifications for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:

- Oxygen content (v/v) of 19.5-23.5%;
- Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
- Carbon monoxide (CO) content of 10 ppm or less;
- Carbon dioxide content of 1,000 ppm or less;
- Moisture content not exceeding a dew point of -50 deg.F (-45.6 deg.C) at 1 atmosphere pressure; and
- Lack of noticeable odor.

The Work Area Supervisor shall ensure that compressors used to supply breathing air to respirators are constructed and situated so as to:

- Prevent entry of contaminated air into the air-supply system;
- Minimize moisture content so that the dew point at 1 atmosphere pressure is 10 degrees F (5.56 deg.C) below the ambient temperature;
- Have suitable in-line air-purifying sorbent beds and filters to further ensure breathing air quality. Sorbent beds and filters shall be maintained and replaced or refurbished periodically following the manufacturer's instructions;

- Have a tag containing the most recent change date and the signature of the person authorized by the employer to perform the change. The tag shall be maintained at the compressor, and;
- Ensure that carbon monoxide levels in the breathing air does not exceed 10 ppm;

Oil-lubricated compressors shall use a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm.

Compressors shall have suitable in-line air-purifying sorbent beds and filters to further ensure breathing air quality. Sorbent beds and filters shall be maintained and changed following the manufactures recommendations.

4.7 Immediately Dangerous to Life and Health

For all IDLH atmospheres:

- A rescue employee will be located outside the IDLH atmosphere;
- Visual, voice, or signal line communication will be maintained at all times between the rescue employee(s) the employee(s) located inside the IDLH atmosphere;
- Entry and rescue employees shall have no hearing impairments which may interfere with communication;
- The rescue employee(s) are trained and equipped to provide effective emergency rescue;
- The on scene commander and/or Work Area Supervisor will be notified before the rescue employee(s) enter the IDLH atmosphere to provide emergency rescue, and;
- Rescue employee(s) will be equipped with pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA and appropriate retrieval equipment for removing the employee(s) within the IDLH atmosphere.

4.8 Program Evaluation

The Program Administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with employees who use respirators and their supervisors, site inspections, air

monitoring and a review of records.

In addition, the Program Administrator will evaluate if:

- Respirators are properly fitted and if employees are able to wear respirators without interfering with effective workplace performance.
- Respirators are correctly selected for the hazards encountered.
- Respirators are used properly depending on the workplace conditions encountered.
- Respirators are being maintained and stored properly.

Problems identified will be noted in an inspection log and addressed by the Program Administrator. These findings will be reported to the Operational Unit Administrator and the report will list activities to correct deficiencies in the respirator program and target dates for the implementation of those corrections.

4.9 Documentation and Record Keeping

A written copy of this program is maintained in the Program Administrator's office and is available to all employees who wish to review it.

The Operational Unit Administrator will maintain copies of the PLHCP's written recommendation for each employee subject to medical evaluation, training and fit test records. These records will be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted. These records consist of:

- Employee name;
- Make, model, and size of the respirator fitted;
- Date of the fit test, and;
- Fit factor and other records of the test

Each employee's completed medical questionnaire, results of relevant medical tests, examinations, and diagnosis, etc., will be maintained by the PHLCP for a period of 30 years.

5.0 VOLUNTARY USAGE

Respirators may be voluntarily utilized by employees in situations where the Program Administrator has evaluated the situation and determined there is no hazard presented by the operation or the respirator. Employees who voluntarily choose to use a respirator when it is not

required are subject to all requirements of this program.

Employees who voluntarily use filtering facepiece respirators (i.e., dust masks) are excluded from all requirements of this program except that they must be provided with the information outlined within Appendix B.

6.0 NIOSH CERTIFICATION

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while it is in use.

APPENDIX A
Respiratory Hazard Evaluation/Usage

Resulting from respiratory hazard evaluation respirators are used in the areas as stated in the following table:

TABLE 1

Respirator Usage			
Division	Department	Work Area	Program Details
Maintenance & Operations	Asbestos Control	campus wide	Appendix A-1
			Appendix A-2

APPENDIX A-1
Asbestos Control Respirator Usage

Process	Work Area / Location	Potential Respiratory Hazards	Employee Overexposure to Hazardous Chemicals	APR	Cartridge
Sample collection	Campus wide	asbestos	potential	½ face	P-100 HEPA
Spill Clean-up	Campus wide	asbestos	potential	½ face	P-100 HEPA
Abatement	Campus wide	asbestos	potential	½ face	P-100 HEPA

The respirator change schedules listed in the following table were established using the cartridge manufacturer's recommendations:

Permissible Exposure Level	Employee Exposure Levels	Cartridge Manufacturer	Cartridge Model Number	Maximum Allowable Service Life (Hours)
0.1 f/cc	>0.1 f/cc	North	7580P100	8

APPENDIX A-2
_____ Respirator Usage

Process	Work Area / Location	Potential Respiratory Hazards	Employee Overexposure to Hazardous Chemicals	APR	Cartridge

The respirator change schedules listed in the following table were established using the cartridge manufacturer's recommendations:

Permissible Exposure Level	Employee Exposure Levels	Cartridge Manufacturer	Cartridge Model Number	Maximum Allowable Service Life (Hours)

APPENDIX B
Information for Employees Using Respirators Voluntarily

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, to provide an additional level of comfort and protection for employees. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, employees may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. 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.

APPENDIX C-1
Respirator Program Request



Respirator Program Request

Print Form

Check Appropriate

Initial Enrollment _____

Renewal Enrollment _____

To be completed by supervisor:

Employee Name: _____ Employee number #: _____
Department: _____ Supervisor: _____ Phone #: _____

- I. Circle type of respirator to be used: Air-purifying (non-powered)
 Air-purifying (powered)

- II. Level of Work Effort (Circle One):

Light Moderate Heavy Strenuous

- III. Extent of Usage (Circle One)

Daily basis Occasionally - but more than once per week Rarely

Length of time anticipated effort (hours): _____

Special Considerations : _____

Anticipated type of chemical/dust exposure (provide category of materials and MSDS's if possible):

To be completed by examining physician:

Based on a medical evaluation I have conducted of the aforementioned employee utilizing a medical questionnaire and/or medical examination, the following is my opinion of the employee's ability to utilize the type respiratory protection referenced.

Use Status (Circle One)

- a) No restrictions on respirator use
b) Restrictions on respirator use

Restrictions:

- c) No respirator use permitted

Examining Physician

Date

Examining physician, please return completed request form to: Supervisor: _____

Address: _____

Appendix C-2
Respirator Medical Evaluation Questionnaire (Mandatory)

Print Form



Respirator Medical Evaluation Questionnaire

To the employer:

Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee:

Can you read (circle one): Yes/No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory)

The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: _____
2. Your name: _____
3. Your age (to nearest year): _____
4. Sex (circle one): Male/Female
5. Your height: _____ ft. _____ in.
6. Your weight: _____ lbs.
7. Your job title: _____
8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code): _____
9. The best time to phone you at this number: _____
10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes/No
11. Check the type of respirator you will use (you can check more than one category):
 - a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).
 - b. _____ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).
12. Have you worn a respirator (circle one): Yes/No
 If "yes," what type(s): _____

Respirator Medical Evaluation Questionnaire

Part A. Section 2. (Mandatory)

Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month: Yes/No
2. Have you ever had any of the following conditions?
 - a. Seizures (fits): Yes/No
 - b. Diabetes (sugar disease): Yes/No
 - c. Allergic reactions that interfere with your breathing: Yes/No
 - d. Claustrophobia (fear of closed-in places): Yes/No
 - e. Trouble smelling odors: Yes/No
3. Have you ever had any of the following pulmonary or lung problems?
 - a. Asbestosis: Yes/No
 - b. Asthma: Yes/No
 - c. Chronic bronchitis: Yes/No
 - d. Emphysema: Yes/No
 - e. Pneumonia: Yes/No
 - f. Tuberculosis: Yes/No
 - g. Silicosis: Yes/No
 - h. Pneumothorax (collapsed lung): Yes/No
 - i. Lung cancer: Yes/No
 - j. Broken ribs: Yes/No
 - k. Any chest injuries or surgeries: Yes/No
 - l. Any other lung problem that you've been told about: Yes/No
4. Do you currently have any of the following symptoms of pulmonary or lung illness?
 - a. Shortness of breath: Yes/No
 - b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
 - c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
 - d. Have to stop for breath when walking at your own pace on level ground: Yes/No
 - e. Shortness of breath when washing or dressing yourself: Yes/No
 - f. Shortness of breath that interferes with your job: Yes/No
 - g. Coughing that produces phlegm (thick sputum): Yes/No
 - h. Coughing that wakes you early in the morning: Yes/No
 - i. Coughing that occurs mostly when you are lying down: Yes/No
 - j. Coughing up blood in the last month: Yes/No
 - k. Wheezing: Yes/No
 - l. Wheezing that interferes with your job: Yes/No
 - m. Chest pain when you breathe deeply: Yes/No
 - n. Any other symptoms that you think may be related to lung problems: Yes/No

Respirator Medical Evaluation Questionnaire

5. Have you ever had any of the following cardiovascular or heart problems?
- a. Heart attack: Yes/No
 - b. Stroke: Yes/No
 - c. Angina: Yes/No
 - d. Heart failure: Yes/No
 - e. Swelling in your legs or feet (not caused by walking): Yes/No
 - f. Heart arrhythmia (heart beating irregularly): Yes/No
 - g. High blood pressure: Yes/No
 - h. Any other heart problem that you've been told about: Yes/No
6. Have you ever had any of the following cardiovascular or heart symptoms?
- a. Frequent pain or tightness in your chest: Yes/No
 - b. Pain or tightness in your chest during physical activity: Yes/No
 - c. Pain or tightness in your chest that interferes with your job: Yes/No
 - d. In the past two years, have you noticed your heart skipping or missing a beat: Yes/No
 - e. Heartburn or indigestion that is not related to eating: Yes/ No
 - f. Any other symptoms that you think may be related to heart or circulation problems: Yes/No
7. Do you currently take medication for any of the following problems?
- a. Breathing or lung problems: Yes/No
 - b. Heart trouble: Yes/No
 - c. Blood pressure: Yes/No
 - d. Seizures (fits): Yes/No
8. If you've used a respirator, have you ever had any of the following problems? (If you've never used a respirator, check the following space and go to question 9)
- a. Eye irritation: Yes/No
 - b. Skin allergies or rashes: Yes/No
 - c. Anxiety: Yes/No
 - d. General weakness or fatigue: Yes/No
 - e. Any other problem that interferes with your use of a respirator: Yes/No
9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes/No
- Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.*
10. Have you ever lost vision in either eye (temporarily or permanently): Yes/No
11. Do you currently have any of the following vision problems?
- a. Wear contact lenses: Yes/No
 - b. Wear glasses: Yes/No
 - c. Color blind: Yes/No
 - d. Any other eye or vision problem: Yes/No

Respirator Medical Evaluation Questionnaire

12. Have you ever had an injury to your ears, including a broken ear drum: Yes/No
13. Do you currently have any of the following hearing problems?
- a. Difficulty hearing: Yes/No
 - b. Wear a hearing aid: Yes/No
 - c. Any other hearing or ear problem: Yes/No
14. Have you ever had a back injury: Yes/No
15. Do you currently have any of the following musculoskeletal problems?
- a. Weakness in any of your arms, hands, legs, or feet: Yes/No
 - b. Back pain: Yes/No
 - c. Difficulty fully moving your arms and legs: Yes/No
 - d. Pain or stiffness when you lean forward or backward at the waist: Yes/No
 - e. Difficulty fully moving your head up or down: Yes/No
 - f. Difficulty fully moving your head side to side: Yes/No
 - g. Difficulty bending at your knees: Yes/No
 - h. Difficulty squatting to the ground: Yes/No
 - i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes/No
 - j. Any other muscle or skeletal problem that interferes with using a respirator: Yes/No

Part B Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen: Yes/No
 If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions: Yes/No

2. Have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals: Yes/No
 If "yes," name the chemicals if you know them: _____

3. Have you ever worked with any of the materials, or under any of the conditions, listed below:

- a. Asbestos: Yes/No
- b. Silica (e.g., in sandblasting): Yes/No
- c. Tungsten/cobalt (e.g., grinding or welding this material): Yes/No
- d. Beryllium: Yes/No
- e. Aluminum: Yes/No
- f. Coal (for example, mining): Yes/No
- g. Iron: Yes/No
- h. Tin: Yes/No
- i. Dusty environments: Yes/No
- j. Any other hazardous exposures: Yes/No If "yes," describe these exposures: _____

Respirator Medical Evaluation Questionnaire

4. List any second jobs or side businesses you have: _____

5. List your previous occupations: _____

6. List your current and previous hobbies: _____

7. Have you been in the military services? Yes/No

If "yes," were you exposed to biological or chemical agents (either in training or combat): Yes/No

8. Have you ever worked on a HAZMAT team? Yes/No

9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications): Yes/No

If "yes," name the medications if you know them: _____

10. Will you be using any of the following items with your respirator(s)?

a. HEPA Filters: Yes/No

b. Canisters (for example, gas masks): Yes/No

c. Cartridges: Yes/No

11. How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you)?:

a. Escape only (no rescue): Yes/No

b. Emergency rescue only: Yes/No

c. Less than 5 hours per week: Yes/No

d. Less than 2 hours per day: Yes/No

e. 2 to 4 hours per day: Yes/No

f. Over 4 hours per day: Yes/No

12. During the period you are using the respirator(s), is your work effort:

a. Light (less than 200 kcal per hour): Yes/No If "yes," how long does this period last during the average shift: _____ hrs. _____ mins. Examples of a light work effort are sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling machines.

b. Moderate (200 to 350 kcal per hour): Yes/No If "yes," how long does this period last during the average shift: _____ hrs. _____ mins. Examples of moderate work effort are sitting while nailing or filling; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

c. Heavy (above 350 kcal per hour): Yes/No If "yes," how long does this period last during the average shift: _____ hrs. _____ mins. Examples of heavy work are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing while bricklaying or chipping castings; walking up an 8- degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

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13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator: Yes/No

If "yes," describe this protective clothing and/or equipment: _____

14. Will you be working under hot conditions (temperature exceeding 77 deg. F): Yes/No

15. Will you be working under humid conditions: Yes/No

16. Describe the work you'll be doing while you're using your respirator(s):

17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases):

18. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):

Name of the first toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

Name of the second toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

Name of the second toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

19. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security): _____

20. Comments: _____

APPENDIX D

User Seal Check Procedures (Mandatory)

User Seal Check Procedures (Mandatory)

The employee who uses a tight-fitting respirator is to perform a user seal check to ensure that an adequate seal is achieved each time the respirator is put on. Either the positive and negative pressure checks listed in this appendix, or the respirator manufacturers recommended user seal check method shall be used. User seal checks are not substitutes for qualitative or quantitative fit tests.

I. Facepiece Positive and/or Negative Pressure Checks

A. *Positive pressure check.* Close off the exhalation valve and exhale gently into the facepiece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece without any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

B. *Negative pressure check.* Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the facepiece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove. If the facepiece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

II. Manufacturer's Recommended User Seal Check Procedures

The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided that the employer demonstrates that the manufacturer's procedures are equally effective.

APPENDIX E
APR Training Certificate

Respiratory Protection Program Training Certificate

Name: _____

Department: _____ Date: _____

I have received Training on the Respiratory Protection Program. The Training included the following:

Classroom Training

- Respiratory Protection Program
- respiratory hazards encountered and their health effects, proper selection and use of respirators
- limitations of respirators
- respirator donning and user seal (fit) checks
- fit testing
- emergency use procedures
- maintenance and storage
- medical signs and symptoms limiting the effective use of respirators

Hands-on Training

- Respirator Inspection
- Respirator cleaning and sanitizing
- Fit Check
- Respirator Storage

Type of Respirator(s)

_____	_____
_____	_____
_____	_____

Employees Signature

Trainer's Signature