(Your Company)

PURPOSE OF MANUAL

The purpose of this manual is to assist **(Your Company)** in the development of a company specific Respiratory Protection Program.

The material in this manual was collected and assembled from a wide variety of safety resources. The recommendations, standards and/or safe work practices are not necessarily all-inclusive. This manual should be used as a guide only. The standards contained herein are overviews and not in a complete form. For more detailed information or clarification **(Your Company)** should refer to the applicable **OSHA**, Manufacturer or Industry Standards and recommendations.

For this manual to be effective, it should be modified by **(Your Company)** to address the site- specific safety concerns, tasks and projects of the company.

NOTICE

This manual is designed for all workers providing services for **(Your Company).**

The term **(Your Company)** refers to the company in control of the working conditions of the **"employee".**

The term **"Supervisor"** includes any person directing the actions of the **"employee"** while providing services for **(Your Company).**

RESPIRATORY PROTECTION PROGRAM

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Who Does This Apply?

Use the checklist provided below to determine if OSHA covers your company**(s)** Respiratory Protection standard at §1910.134. If your company is covered by this standard, you need a respiratory protection program consisting of written standard operating procedures.

_____ Your workplace has any of the following hazards that cannot be controlled through Engineering means alone:

- Lack of oxygen
- Presence of harmful dust
- Fogs
- Smokes
- Mists
- Fumes
- Gases
- Vapors
- Sprays

And

_____ Your company has one or more employee who works with a respirator at any time; and

_____ Your company currently has no written respiratory program lying out standard operating procedures to govern the selection and use of respirators in your workplace.

If you checked off all three of the above statements, then you are subject to the requirements of the Respiratory Protection Standard and must have a written respiratory program. In addition, you are subject to the written hazard assessment provision under the General Requirements part of Personal Protective Equipment (PPE) Subpart of **OSHA** regulations, in §1910.132. See the Personal Protective Equipment (PPE) section in this manual for further information on that requirement.

If you checked only the first two statements, but your company already has developed a written respiratory protection program, then you should use this section to:

a. Review the adequacy of your current written program's contents, and

b. Determine the compliance of your respiratory protection program overall.

If you checked off only the first of the above statements, but you never have employees work in those hazardous atmospheres and/or you only hire subcontract workers to work in such atmospheres, then you do not need a written Respirator Program for your workplace.

What Is It?

Some of the most common workplace hazards to the lungs are the lack of oxygen and the presence of harmful dust, fogs, smokes, mists, fumes, gases, vapors, or sprays including substances that may cause cancer, lung impairment, other diseases, or death. Respirators are necessary to prevent the entry of harmful substances into the lungs during breathing. Some respirators also provide a separate supply of breathable air so work can be performed where there is inadequate oxygen, or where greater protection is needed.

The prevention of atmospheric contamination at the work-site generally should be accomplished as far as feasible by engineering control measures, such as enclosing or confining the contaminant-producing operation, exhausting the contaminant, or substituting with less toxic materials. However**,** when effective engineering controls are not enough to contain the hazard completely, while those controls are being installed, or during cleanup operations, appropriate respirators must be used.

Where respirators are necessary for health protection, specific procedures are necessary to overcome any potential deficiencies and to insure the effectiveness of the equipment. **OSHA's** Respiratory Protection Program at §1910.134 regulates the selection and use of respirators in the workplace, because the use of respirators is complex, and different hazards require different respirators. If your company is covered by this standard, you need a respiratory protection program consisting of written standard operating procedures to govern the selection and use of respirators in your workplace.

The written respiratory protection program should contain all information needed to maintain an effective respirator program to meet the users' individual requirements. It should be written so as to be useful to:

- Those directly involved in the respirator program,
- The program administrator,
- Those fitting the respirators and training the workers,
- Respirator maintenance workers, and
- The supervisors responsible for overseeing respirator use on the job.

It is not necessary that the respirator program operating procedures be written for the wearer, although in a very small program it may be desirable to direct their content to the wearer. Only analysis of the individual program will show to what extent information for the wearer should be included.

Any respirator program should stress thorough training of all participants, chiefly the users who need to wear the respirators. Employees must be aware that the equipment does not eliminate the hazard. If the equipment fails, overexposure will occur. To reduce the possibility of failure, equipment must fit properly and be maintained in a clean and serviceable condition.

Elements of a Respirator Program

An effective respirator program should include at least the following written standard operating procedures as elements to govern the selection and use of respirators in your workplace:

- **Purpose**

  A statement of the program's purpose.

- **Respirator selection**

  Respirators must be selected for the hazards to which the workers are exposed, from those approved by the Mine Safety and health Administration and the National Institute for Occupational Safety and Health under the provisions of 30 CFR part 11.

- **Training and use**

  Detailed instructions for training workers in the proper use procedures of the respirator(s), including respirator fitting, respirator limitations, and all other necessary elements for which they will need the knowledge to perform duties associated with it.

- **Detailed maintenance procedures for inspection, cleaning, disaffection, and storage**

  Respirators used routinely shall be inspected during cleaning. Worn or deteriorated parts shall be replaced. Respirators for emergency use such as self-contained devices shall be thoroughly inspected at least once a month and after each use. Respirators shall be regularly cleaned and disinfected. Those used by more than one worker shall be thoroughly cleaned and disinfected after each use. They shall be stored in a convenient, clean, and sanitary location.

  Work area surveillance

  Appropriate surveillance of work area conditions and degree of Employee exposure or stress shall be maintained.

- **Program evaluation**

  Procedures for evaluating the respirator program's effectiveness via regular Inspection and evaluation.

  Physical fitness determination for users

  Guidelines for medical surveillance of workers. Including pre-employment physical examinations to eliminate those physically or psychologically unfit to wear respirators, and periodic physical examinations to review the overall effectiveness of the respirator program on the basis of physiological factors. The respirator user's medical status should be reviewed periodically (for instance, annually).

- **Air quality standards**

Technically, you need not put this as a separate section of the written program, but the air quality standards are an important requirement which you may wish to have in writing. Information is provided here on them.

The exact format of written standard operating procedures may vary widely The large company that has many workers wearing respirators and, perhaps, several respiratory hazards to consider, may formulate separate procedures for selection and use of respirators for each hazard. For a small company, which have only a few workers to protect from only one or very few hazards, a much-simplified document may serve; but it must cover the same subjects. In general, the complexity of the procedures increases as respirator use increases.

The procedures also become more extensive as the toxicity of the respiratory hazard(s) increases, demanding better and more reliable protection. It is better to be overly detailed in developing written operating procedures than not detailed enough.

Further information is given here on the complex issues of all the program elements except the Purpose and Program Evaluation sections, which are relatively straightforward.

Respirator Selection

Choosing the right equipment is complex and involves several steps: determining what the hazard is and its extent, choosing equipment that is certified for the function, and assuring that the device is performing the intended function. The proper selection of respirators must be made according to the guidance of American National Standards Institute (ANSI) publication, "Practices for Respiratory Protection," ANSI Z88.2-1969 (A later edition of this standard, Z88.2-1980, has been issued by ANSI.)

Chemical and physical properties of the contaminant, as well as the toxicity and concentration of the hazardous material and the amount of oxygen present, must be considered in selecting the proper respirators. The nature and extent of the hazard, work rate, area to be covered, mobility, work requirements and conditions, as well as the limitations and characteristics of the available respirators also are selection factors.

There are two basic classes of respirators: air purifying and atmosphere supplying. Air-purifying respirators use filters or sorbents to remove harmful substances from the air. They range from simple disposable masks to sophisticated powered air-purifying respirators. Air-purifying respirators do not supply oxygen and may not be used in oxygen-deficient atmospheres or in ones that are immediately dangerous to life or health (IDLH). Atmosphere-supplying respirators are designed to provide breathable air from a clean air source other than the surrounding contaminated work atmosphere. They range from supplied-air respirators and self-contained breathing apparatus (SCBAs) to complete air-supplied units.

The time needed to perform a given task, including the time necessary to enter and leave a contaminated area, is one factor that determines the type of respiratory protection needed. For example, an SCBA, gas mask, or air-purifying chemical-cartridge respirator provides respiratory protection for relatively short periods whereas a type of atmosphere-supplying respirator that supplies breathable air from an air compressor through an airline can provide protection for extended periods of time. Particulate filter air- purifying respirators can provide protection for long periods without the need of filter replacement only if the total concentration of atmospheric particulate is low. Where there are higher concentrations of contaminants an atmosphere-supplying respirator such as the positive pressure supplied-air respirator (SAR) offers the advantage of better protection and longer duration.

The use of SAR’s also avoids the need to be concerned about the sensory warning properties of the airborne toxic materials, a factor that must be considered when using air-purifying respirators. These respirators also cause less discomfort than air-purifying respirators because the wearer need not overcome filter resistance when inhaling.

Air-purifying respirators present minimal interference with the wearer's movement, whereas atmosphere- supplying respirators may restrict movement and present potential hazards. For example, SAR’s with their trailing hoses, can limit the area the wearer can cover and may present a potential hazard where the trailing hose can meet machinery.

Similarly, a SCBA -- (a respirator that includes a back-mounted, compressed-air cylinder), presents both a size and weight penalty. This may restrict climbing and movement in tight places, and carrying the added weight of the air cylinder presents an additional burden.
Another factor to consider when using respirators is the air-supply rates. The wearer's work rate determines the volume of air breathed per minute. The volume of air supplied to meet the breathing requirement is of great significance when using atmosphere-supplying respirators such as self-contained and air-line respirators that use cylinders because this volume determines their operating life. The useful service life of these respirators under even moderate working conditions may be significantly less than under conditions of rest.

The peak airflow rate is also important in the use of a constant-flow SAR. The air-supply rate should always be greater than the maximum amount of air being inhaled to maintain the respiratory enclosure under positive pressure.

Higher breathing resistance of air-purifying respirators under conditions of heavy work may result in distressed breathing. A person working in an area of high temperature or humidity is under stress. Using one having a minimal weight and minimal breathing resistance when these can be fitted properly to the wearer should minimize additional stress resulting from the use of a respirator.
Some type of warning on the remaining service life is available for all SCBAs and for some chemical canister respirators. This may be a pressure gauge or timer with an audible alarm for SCBAs or a color end-of service-life indicator on the cartridge or canister. The user should understand the operation and limitations of each type of warning device. Most other gas masks and chemical-cartridge respirators have no indicator for remaining service life. It is important, therefore, that new canisters and cartridges be used at the beginning of each work shift.

(This table presents a simplified version of characteristics and factors used for respirator selection. It does not specify the contaminant concentrations or particle size.)

	Hazard	Respirator
1.	**Oxygen Deficiency**	
	Immediately dangerous to life or health*	Any positive-pressure SCBA. Combination positive-pressure SAR with auxiliary self-contained air supply.
	Not immediately dangerous to life or health	Any positive-pressure SCBA or supplied-air respirator.
2.	**Gas and vapor contaminants**	
	Immediately dangerous to life or health*	Positive-pressure SCBA. Combination positive pressure SAR with auxiliary self-contained air supply.
	Not immediately dangerous to life or health	Any positive-pressure SAR. Gas mask. Chemical cartridge respirator.
3.	**Particulate contaminants**	Any positive-pressure SAR including abrasive blasting respirator. Powered air- purifying respirator equipped with high- efficiency filters. Any air-purifying respirator with a specific particulate filter.

4.	**Gaseous and particulate contaminants**	
	Immediately dangerous to life or health*	Positive-pressure SCBA, Combination positive-pressure SAR with auxiliary self-contained air supply**.**
	Not immediately dangerous to life or health	Any positive-pressure supplied-air respirator. Gas mask. Chemical-cartridge respirator.
5	**Escape from contaminated atmosphere that may be immediately dangerous to life or health*.**	Any positive-pressure SCBA. Gas mask. Combination positive-pressure SAR with escape SCBA.
6.	**Fire fighting**	Any positive-pressure SCBA

***Note:** "Immediately dangerous to life or health" is any condition that poses either an immediate threat to life or health or an immediate threat of severe exposure to contaminants, such as radioactive materials, which are likely to have adverse delayed effects on health.

Training and Use

Both supervisors and workers must be taught the proper selection, use, and maintenance of respirators. All employees required to use respiratory protective equipment must be instructed in the proper use of the equipment and its limitations.

Written procedures shall be prepared covering safe use of respirators in dangerous atmospheres that might be encountered in normal operations or in emergencies.

Personnel shall be familiar with these procedures and the available respirators. Those employees who will be required to use respiratory protective equipment in atmospheres immediately dangerous to life or health should be trained in rescue procedures and have special requirements for attendants.
Communications (visual, voice, or signal line) shall be maintained between all individuals present.

The training, conducted by a competent person, must include instructions of fitting and on how to check the face-piece-to-face seal. The employee must be given an opportunity to handle the respirator, wear it in normal air for a period of time to become familiar with it and to practice adjusting it, and then wear it in a test atmosphere.

Training should include an explanation of the following:

- Nature of the respiratory hazard and what may happen if the respirator is not used properly,
- Engineering and administrative controls being used and the need for the respirator as added protection,
- Reason(s) for selection of a particular type of respirator,
- Limitations of the selected respirator,
- Methods of donning the respirator and checking its fit and operation,

- Proper wear of the respirator,
- Respirator maintenance and storage, and
- Proper method for handling emergency situations.

Users should know that improper respirator use or maintenance may cause overexposure. They should know that continued use of poorly fitted and maintained respirators can also cause chronic disease or death from overexposure to air contaminants.

Fit Testing

Full face-pieces, half masks, quarter masks and even the different brands of the same type of respirator marketed, have different fit characteristics. No one respirator will fit everyone. Employers will find it advantageous to purchase several brands of each type in various sizes to assure proper fit for all workers who must wear one.

Corrective glasses worn by employees also present a problem when fitting respirators. Special mountings are available to hold corrective lenses inside full face-pieces.

If corrective lenses are needed, the face-piece and lenses must be fitted by a qualified individual to provide good vision, comfort, and proper sealing.

The user must receive fitting instructions including demonstrations and practice in how to wear the respirator, how to adjust it, and how to determine if it fits properly.

Although respirators are designed for maximum efficiency, they cannot provide protection without a tight seal between the face-piece and wearer. Consequently, beards and other facial hair can substantially reduce the effectiveness of a respirator.

The absence of dentures can seriously affect the fit of a face-piece. To assure proper respiratory protection, a face-piece must be checked each time the respirator is worn. This can be accomplished by performing either a positive-pressure or negative-pressure check. Detailed instructions for performing these tests can be found in the ANSI standard on respirator use.

The effectiveness of the fit of the face-piece can be tested two ways - qualitatively and quantitatively.

Qualitative fit testing involves the introduction of a harmless odorous or irritating substance into the breathing zone around the respirator being worn. If no odor or irritation is detected, a proper fit is indicated.

Quantitative fit testing offers the most accurate, detailed information on respirator fit. It involves the introduction of a harmless aerosol to the wearer while he or she is in a test chamber. While the wearer performs exercises that could induce face-piece leakage, the air inside and outside the face-piece is then measured for the presence of the harmless aerosol to determine any leakage into the respirator.

Respirator Use Under Special Conditions

The following are special problems which may be encountered in the wearing and use of respiratory protective equipment.

- Facial Hair
- Contact Lenses
- Communications
- In Low and High Temperatures
- Eye Glasses
- Facial Deformities
- In Dangerous Atmospheres
- Physiological Response of Respirator Use

Inspection, Cleaning, Maintenance and Storage

All respirators must be inspected for wear and deterioration of their components before and after each use. Special attention should be given to rubber or plastic parts which can deteriorate. The face-piece, especially the face seal surface, headband, valves, connecting tube, fittings, and canister must be in good condition. A respirator inspection must include a check of the tightness of the connections.

SCBAs must be inspected at least monthly. Air and oxygen cylinders must be fully charged according to the manufacturer's instructions. Regulator and warning devices must be checked to assure their proper function. Chemical cartridges and gas mask canisters should be replaced as necessary to provide complete protection. The manufacturer's recommendations should be followed. Mechanical filters must be replaced as necessary to avoid high resistance to breathing.

Repairs must be made only by experienced persons using parts specifically designed for the respirator. The manufacturer's instructions should be consulted for any repair, and no attempt should be made to repair or replace components or make adjustments or repairs beyond the manufacturer's recommendations.

A respirator that has been used must be cleaned and disinfected before it is reissued. Emergency-use rescue equipment must be cleaned and disinfected immediately after each use. Records must be kept of inspection dates and findings.

Respirators must be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. Protection against any mechanical damage should also be provided. Respirators should be stored so that face-pieces and exhalation valves will rest in a normal position to prevent the rubber or plastic from reforming into an abnormal shape.

Respirators may be washed in a detergent solution and then sanitized by immersion in a sanitizing solution. Cleaner-sanitizers that effectively clean the respirator and contain a bactericidal agent are commercially available. The bactericidal agent frequently used is a quaternary ammonium compound. Strong cleaning and sanitizing agents and many solvents can damage rubber or elastomeric respirator parts. Such materials must be used with caution or after consultation with the respirator manufacturer.

Work Area Surveillance

Surveillance must be maintained of the conditions in the work area and of the degree of worker exposure or stress (combinations of work rate, environmental conditions, and physiological burdens of wearing a respirator). Changes in operating procedures, temperature, air movement, humidity, and work practices may influence the concentration of a substance in the work area atmosphere. These factors necessitate periodic monitoring of the air contaminant concentration. Testing should continue to assure that the contaminant exposure has not risen above the maximum protective capability of the respirators being used.

Employees using SCBAs or SARs with auxiliary SCBAs in confined spaces, where the environment is or may be immediately dangerous to life or health, must wear safety harnesses and lifelines. A second person equipped with complete protective gear must be standing by ready to help if the first worker gets into trouble. Communications (visual, voice, or signal line) must be maintained with all persons present. Precautions must be taken so that in the event of an accident one person will be unaffected and have the proper rescue equipment to be able to assist the others in an emergency situation.

Physical Fitness Determination for Users

The regulation states that no one should be assigned a task requiring use of respirators unless found physically able to do the work while wearing the respirator. In addition, some regulatory standards for specific substances and occupations may also contain requirements for medical examinations. Both types of standards declare that a physician should determine what health and physical conditions are pertinent, and that respirator wearers' medical status should be reviewed periodically.

Pre-placement medical examinations should screen out those who are physically or psychologically unfit to wear respirators.

As another part of this examination, medical tests pertinent to the respiratory hazards that workers may encounter should be made to get baseline data against which to assess physiological changes in respirator wearers. In addition, the workers' previous medical and employment history should also be considered.

The types of information which should be obtained from the worker include:

History of respiratory disease:

Identifies workers with a history of asthma, emphysema, or chronic lung disease. These people may be at risk when wearing a respirator.

Work history:

Identifies workers who have been exposed to asbestos, silica, cotton dust, beryllium, etc., within the past ten years, or workers who have worked in occupations or industries where such exposure was probable. If past exposures are identified, medical tests can be obtained for comparison. Some of the specific items of information which might be obtained include:

- Previous occupations;
- Problems associated with breathing during normal work activities; and
- Past problems with respirator use.

Any other medical information:

Which might offer evidence of the worker's ability or inability to wear and use respirators, such as:

- Psychological problems or symptoms including claustrophobia;
- Any known physical deformities or abnormalities, including those which may interfere with respirator use;
- Past and current usage of medication; and
- Tolerance to increased heart rate, which can be produced by heat stress.

Periodic routine medical examinations should be made to determine whether respirator wearers have been exposed to harmful levels of respiratory hazards. Examination frequency should be tailored to particular situations and in accordance with specific substance standards. Tests to determine whether harmful amounts of hazardous substances have been taken into the body should be used.

These may include urine, blood, or feces analysis and other techniques to determine the intake and excretion of toxic substances. The findings of these tests, when correlated with other exposure data, such as air sampling data for wearers of such equipment, can serve as an indication of program effectiveness. Positive evidence of exposure should be followed up with appropriate surveillance of work area conditions to determine if there is any relationship to inadequate respiratory protection or a need for additional engineering controls.

Air Quality Standards

Compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration must be of high purity Oxygen must meet the requirements of the United States Pharmacopoeia for medical or breathable oxygen.

Breathable air must meet at least the requirement for Grade D breathable air described in Compressed Gas Association (CGA) Commodity Specification G-7.1-1966. (A later edition of this specification, G-7.1- 1973, has been issued by CGA.) Compressed oxygen must not be used in open circuit SCBAs or SARs that have previously used compressed air. Oxygen must never be used with air-line respirators.

Breathable air may be supplied to respirators from cylinders or air compressors. For testing cylinders, see Shipping Container Specifications of the Department of Transportation (49 CFR Part 178).

Containers of breathable gas must be clearly marked. Further details on the sources of compressed air and its safe use will be found in the Compressed Gas Association's pamphlet G-7-1968.

The compressor for supplying air must be equipped with the necessary safety devices and alarms. Compressors must be constructed and situated to avoid any entry of contaminated air into the system and must be equipped with suitable in-line, air-purifying sorbent beds and filters installed to assure air quality. The system must also have a receiver of sufficient capacity to enable the wearer to escape from a contaminated atmosphere in the event of compressor failure and alarms to indicate compressor failure and overheating. If an oil-lubricated compressor is used, it must have a high-temperature, or carbon monoxide alarm, or both. If only the high-temperature alarm is used, the air from the compressor must be tested frequently for carbon monoxide.

Air-line couplings must be incompatible with outlets for other gas systems to prevent accidental servicing of air-line respirators with non-respirable gases or oxygen.

Area Involvement in the Process

The plant or company department of industrial hygiene, health physics, safety engineering or fire prevention should administer the respirator program in liaison with the plant medical department, if there is one. In small plants that have no such departments, the respirator program should be administered by an upper-level superintendent, foreman, or qualified person responsible to the principle manager. Overall responsibility should rest with one person. The administrator must have sufficient knowledge of the subject to supervise the program properly.

Before you or the designated person begins to write the program, you need to gather and lay out information regarding: employees who use respirators, types of respirators in use at your company, departments in which respirators are used, and work operations for which respirators are used. Ask for help from department heads or area supervisors in determining this information.

The final written respirator program should contain all information needed to maintain an effective respirator program to meet the user's individual requirements. It should be written so as to be useful to those directly involved in the respirator program, the program administrator, those fitting the respirators and training the workers, respirator maintenance workers, and the supervisors responsible for overseeing respirator use on the job. It is not necessary that the operating procedures be written for the wearer, although in a very small program it may be desirable to direct their content to the wearer. Only analysis of the individual program will show to what extent information for the wearer should be included.

The exact format of written standard operating procedures may vary widely. The large user who has many workers wearing respirators and, perhaps, several respiratory hazards to consider, may formulate separate procedures for selection and use of respirators for each hazard. For a small user, who has only a few workers to protect from only one or very few hazards, a much simplified document may serve; but it must cover the same subjects. In general, the complexity of the procedures increases as respirator use increases.
The procedures also become more extensive as the toxicity of the respiratory hazard(s) increases, demanding better and more reliable protection. It is better to be overly detailed in developing written operating procedures than not detailed enough.

When the respirator program is ready, train affected employees on its existence and purpose, as well as on proper selection, use, and care as necessary. Even if they have previously received training, train them whenever new conditions or procedures arise that provides new information regarding respirators in your workplace.

Checklist to Complete a Respirator Program

Use the following checklist as you are developing your written respirator program.

Before you start writing or revising your written program:

- Read and understand this section.
- Which employees in what jobs and areas are covered.
- Determine if feasible engineering controls or work practices can eliminate the need for respirators and your need for a program.

When writing the program:

- Overall responsibility for the program should rest with one person.
- Make sure the program contains at least the following elements:

_____Purpose

_____Respirator selection

_____Training and use

_____Inspection, cleaning, maintenance and storage

_____Work area surveillance

_____Program evaluation

_____Physical fitness determination for users

_____Air quality standards

Sample Respirator Program

The following is a sample respirator program adapted from the NIOSH *Guide to Industrial Respiratory Protection* and the Office of Superfund Region V Respirator Protection Program.

Company Name: Contact

Person:

(Your Company) Respirator Program Purpose

This respirator program lays out standard operating procedures to ensure the protection of all employees from respiratory hazards, through proper selection and use of respirators. Respirators are to be used only where engineering control of respirator hazards is not feasible, while engineering controls are being installed, or in emergencies. This program is in accordance with the requirements of **OSHA** 29 CFR 1910.134. The company contact person is (name). He/she is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of this program. This authority includes hiring personnel and purchasing equipment necessary to implement and operate the program. The contact person will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions.

Respirator Selection

Respirators will be selected on the basis of hazards to which the worker is exposed. All selections will be made by the contact person. Only MSHA/NIOSH certified respirators will be selected and used. Where practicable, the respirators will be assigned to individual workers for their exclusive use.

The contact person will develop detailed written standard operating procedures governing the selection and use of respirators using the NIOSH Respirator Decision Logic as a guideline. Outside consultation, manufacturer's assistance, and other recognized authorities will be consulted if there is any doubt regarding proper selection and use. These detailed procedures will be included as appendices to this respirator program. Only the Contact person may amend these procedures.

See Appendix 1 for detailed selection and use criteria.

Training and Use

The user will be instructed and trained in the proper use of respirators and their limitations. Both supervisors and workers will be so instructed by the Contact person. Training should provide the employee an opportunity to handle the respirator, have it fitted properly, test its face-piece-to-face seal, wear it in normal air for a long familiarity period, and finally to wear it in a test atmosphere. Every respirator wearer will receive fitting instructions, including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly.

Respirators should not be worn when conditions prevent a good face seal. Such conditions may be a growth of beard, sideburns, a skull cap that projects under the face-piece, or temple pieces on glasses. No employees of **(Your Company)**, who are required to wear respirators, may wear beards. Also the absence of one or both dentures can seriously affect the fit of a face-piece.

The worker's diligence in observing these factors will be evaluated by periodic checks. To assure proper protection, the face-piece fit will be checked by the wearer each time the wearer puts on the respirator.
This will be done by following the manufacturer's face-piece-fitting instructions.

See Appendix 1 for detailed selection and use criteria and see Appendix B for detailed use and care criteria for air purifying respirators. **(Your Company)** has such detailed instructions and specifications for all types of respirators used at the facility.

Inspection, Cleaning, Maintenance, and Storage

Respirators will be regularly cleaned and disinfected. Those issued for the exclusive use of one worker will be cleaned after each day's use, or more often if necessary. Those used by more than one worker will be thoroughly cleaned and disinfected after each use. The Contact person will establish a respirator cleaning and maintenance facility and develop detailed written cleaning instructions.

The central respirator cleaning and maintenance facility will store respirators in a clean and sanitary location.

Respirators used routinely will be inspected during cleaning. Worn or deteriorated parts will be replaced. Respirators for emergency use such as self-contained devices will be thoroughly inspected at least once a month and after each use. Inspection for SCBA breathing gas pressure will be performed weekly'

See Appendix 2 for detailed use and care criteria for air purifying respirators. See Appendix 3 for inspection criteria for self-contained breathing apparatus (SCBA). **(Your Company)** has such detailed instructions and specifications for all types of respirators used at the facility.

Work Area Surveillance

Appropriate surveillance of work area conditions and degree of employee exposure or stress will be maintained. During safety audits and at other opportunities the Contact person will make inspections of areas where respirators are used to ensure compliance with the respiratory protection programs.

Program Evaluation

There will be a regular inspection and evaluation to determine the continued effectiveness of the program. The Contact person will make frequent inspections of all areas where respirators are used to ensure compliance with the respiratory protection programs.

Physical Fitness Determination for Users

Persons will not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. The designated physician will determine what health and physical conditions are pertinent. The respirator user's medical status will be reviewed annually.

Air Quality Standards

Air quality standards as required by the regulation will be maintained.

Appendix 1 - SELECTION AND USE

1. The selection of a specific respirator must be made by individuals knowledgeable about the limitations associated with each class of respirators and familiar with the actual workplace environment, including the job task(s) to be performed. The correct use of a respirator is just as important as the selection process if adequate worker protection is to be achieved.

    A. Criteria for Selecting Respirators

To use this decision logic, the user must first assemble the necessary toxicological, safety, and other relevant information for each contaminant, including the following:

- General use conditions, including determination of contaminant(s);
- Physical, chemical, and toxicological properties of the contaminant(s); - Odor threshold data; if applicable.
- NIOSH recommended exposure limit, (REL), ACGIH threshold limit values, (TLVs), **OSHA** permissible exposure limit (PEL) or other applicable exposure limit (Exposure limits are usually Time Weighted Averages (TWA) unless a ceiling limit exists for the compound.)
- Immediately dangerous to life or health (IDLH) concentration;
- Eye irritation potential; and
- Any service life information available (for cartridges and canisters).

When conflicting or inadequate data are found, experts should be consulted before decisions are made that could affect the proper use of the selection procedure. In addition, the adequacy of the respirator selected is dependent on the validity of the exposure limit used.

The information obtained on general use conditions for respirators should include a description of the actual job task, including the duration and frequency, location and physical demands. Some general use conditions may preclude the use of specific types of respirators in certain circumstances because the individual must be medically and psychologically suitable to wear a given respirator for a given task, particularly if the respirator is a self-contained breathing apparatus (SCBA).

Information obtained on the service life of the cartridge/canister under conditions of intended use should be evaluated regardless of the odor warning properties of the chemicals. These evaluations should be based on all gases and vapors present at the temperature and relative humidity extremes (high and low) in the workplace. Cartridge replacement schedules will be based on the type of operation and will generally be a t the end of each shift of work or more often as indicated by odor break through, or high breathing resistance. Cartridge replacement may be at more frequent intervals.

    A. Restrictions and Requirements for All Respirator Usage

The following requirements and restrictions must be considered to ensure that the respirator selected will provide adequate protection under the conditions of intended use:

- Respirator users must receive annual training in basic maintenance, inspection, leaning, and evaluation of the respirator; use of the respirator in accordance with the manufacturer's instructions; fit testing; and environmental monitoring. Minimum respiratory protection requirements can be found in the **OSHA** Safety and Health Standards, 29 CFR 1910.134, and in the expanded standards sections for specific contaminants. Respiratory protection information is also found in the NIOSH Pocket Guide to Chemical Hazards and in other publications.

- Qualitative or quantitative fit tests should be provided as appropriate to ensure that the respirator fits the individual. Periodic evaluation of the effectiveness of each respirator during use in the workplace should be conducted to ensure that each wearer is being provided with adequate respiratory protection. When quantitative fit testing (QNFT) is used, the fit factor screening level should be chosen with caution and with the recognition of the uncertainty of its effectiveness since no studies have demonstrated what fit factor values provide adequate accept/reject criteria for quantitative fit screening.

- Negative pressure respirators should not be used when facial scars or deformities interfere with the face seal.

- No respirator (including positive pressure respirators) should be used when facial hair interferes with the facial seal.

- The respirators should be properly maintained, correctly used, and conscientiously worn.

- The usage limitations of air-purifying elements, particularly gas and vapor cartridges, should not be exceeded.

- In order to select air purifying respirators the following criteria must be met in almost all situations:

- Compound must be identified and quantified. Compound must have adequate warning properties. There must be at least 19.5% oxygen present.

- The respirators must be approved by the Mine Safety and Health Administration and the National Institute for Occupational Safety and Health +(MSHA/NIOSH).

- Full face respirators are the only respirators approved for Office of Superfund personnel.

- Workers must leave the contaminated area immediately upon suspicion of respirator failure.

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Respiratory Protection Program

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- Full face respirators are the only respirators approved for Office of Superfund personnel.

- Workers must leave the contaminated area immediately upon suspicion of respiratory failure.

- Workers are not exposed to single unvarying concentrations of hazardous substances. Individual exposures may vary throughout a site or facility, a work shift, and between days. The highest anticipated concentration should be used to compute the required protection factor for each respirator wearer. Respirator selection will be made based on the compound with the most toxic and/or carcinogenic property or potential.

- Respirator wearers should be aware of the variability in human response to the warning properties of hazardous substances.

- Published assigned protection factors (APFs) of various respirators are based for the most part on laboratory studies. However, a few APFs have been validated by data obtained from studies of workplace protection factors (WPFs). For the present, the APFs should be regarded as approximate as they are not based on WPFs.

- Respirator Decision Logic Sequence

After all criteria have been identified and evaluated and after the requirements and restrictions of the respiratory protection program have been met, the following sequence of questions can be used to identify the class of respirators that should provide adequate respiratory protection:

1. Is the respirator intended for use during firefighting?

    a. If yes, only a self-contained breathing apparatus (SCBA) with a full face- piece operated in pressure demand or other positive pressure mode is recommended.

    b. If no, proceed to Step 2.

2. Is the respirator intended for use in an oxygen-deficient atmosphere, i.e., less than 19.5% *oxygen* at sea level?

    a. If yes, a self-contained breathing apparatus (SCBA) with a full face-piece operated in a pressure demand or other positive pressure mode, or a supplied air respirator (SAR) with full face-piece operated in a pressure demand or other positive pressure mode in combination with an auxiliary SCBA in pressure demand or other positive pressure mode. The auxiliary SCBA must be of sufficient duration to permit escape to safety if the air supply is interrupted.

    b. If no, proceed to Step 3.

3. Is the respirator intended for use during emergency situations?

    a. If yes, two types of respirators are recommended: a SCBA with a full face- piece operated in pressure

demand or other positive pressure mode or a SAR with a full face-piece operated in pressure demand or other positive pressure mode in combination with an auxiliary SCBA operated in pressure demand or other positive pressure mode. The Auxiliary SCBA must be of sufficient duration to permit escape to safety if the air supply is interrupted.

b. If no, proceed to Step 4

4. Is the contaminant regulated by the Department of Labor as an occupational carcinogen or identified by NIOSH or ACGIH as a carcinogen or as a potential human carcinogen in the workplace, and is the contaminant detectable in the atmosphere?

   a. If yes, the respirator selected, either supplied air, or air purifying, will depend on the properties of the contaminant: confirmed, or suspected human carcinogen, assigned numeric exposure limit, no exposure limit assignment, and the concentration of the contaminant at the work location. (Respirator selections for carcinogenic contaminants should be referred to the Superfund Contact person.)

   b. If no, proceed to Step 5.

5. Is the exposure concentration of the contaminant, as determined by acceptable industrial hygiene methods, less than the NIOSH REL or other applicable exposure limit?

   (Whenever a worker is given a respirator to use on a voluntary basis when ambient levels are below applicable limits, **OSHA** requires the implementation of a complete respiratory protection program, which includes medical evaluation, training, fit testing, periodic environmental monitoring, and all other requirements in 29 CFR 1910.134.)

   a. If yes, a respirator would not be required except for an escape situation. Proceed to Step 7. (Because of the mix of compounds (in most cases, not quantified) found at hazardous waste sites, Respiratory Protection is generally required at any concentration above background.)

   b. If no, proceed to Step 6.

6. Are conditions such that a worker who is required to wear a respirator can escape from the work area and not suffer loss of life or immediate or delayed irreversible health effects if the respirator fails, i.e., are the conditions not Immediately dangerous to life or health (IDLH)?

   a. If yes, conditions are not considered to be IDLH. Proceed to Step 7.

   b. If no, conditions are considered to be IDLH. Two types of respirators are recommended: a SCBA with a full face-piece operated in pressure demand or other positive pressure mode or an SAR with a full face-piece operated in pressure demand or other positive pressure mode in combination with an auxiliary SCBA operated in pressure demand or other positive pressure mode. The auxiliary SCBA must be of sufficient duration to permit escape to safety if the air supply is interrupted.

7. Is the contaminant an eye irritant, or can the contaminant cause eye damage at the exposure concentration?

   a. If yes, a respirator equipped with a full face-piece, is required. Full face respirators are the only respirators approved for Office of Superfund personnel. (See restrictions and requirements

above.) Proceed to Step 8.

8. If the physical state of the contaminant is a particulate (solid or liquid) during periods of respirator use, proceed to Step 9; if it is a gas or vapor, proceed to Step 10, if it is a combination of gas or vapor and particulate, proceed to Step 11.

9. A filter medium that will provide protection against exposure to the particulate in question is required. Office of Superfund personnel must wear High Efficiency Particulate Air (HEPA) filters as protection against all toxic particulate matter, regardless of the REL/TLV/PEL. In some instances, other filters may be approved for nuisance dusts only.

   Maximum use concentration of the respirators used as protection against toxic particulate matter is based on the REL/TLV/PEL of the substance multiplied by the assigned protection factor (APF). Some toxic substances have specific **OSHA** respirator selection requirements based on their concentrations.

10. Gas/Vapor Respirators

    Are the warning properties for the gas/vapor contaminant adequate at or below the NIOSH REL/ TLV/PEL or their applicable exposure limit?

    a. If yes, proceed to Step 11.

    b. If no, an air-purifying respirator equipped with an effective end-of-service- life indicator (ESLI), a supplied-air respirator, or a self-contained breathing apparatus is recommended.

11. A combination air-purifying chemical cartridge/canister and HEPA filter respirator is required that has a sorbent suitable for the chemical properties of the anticipated gas/vapor contaminant(s) and for the anticipated exposure levels.

    Note: Because of the mix of unquantified compounds generally found at hazardous waste sites, respirator selection is frequently made on gross concentration readings made with organic vapor direct reading monitoring instruments.

Because the standard criteria for selecting air-purifying respirators (identifying, quantifying, and adequate warning properties) is not satisfied with the portable monitoring instruments used, very conservative (highly protective) respiratory protection is selected under these conditions. (See level of protection based on dial reading response in EPA's Standard Operating Safety Guides.)

Appendix 2

AIR PURIFYING RESPIRATORS - INSTRUCTIONS FOR USE AND CARE BY PROPERLY TRAINED AND QUALIFIED PERSONNEL.

WARNING

1. This device does NOT supply oxygen.
2. Use only in adequately ventilated areas containing at least 19.5 percent oxygen.
3. Do not use when concentrations of contaminants are unknown or immediately dangerous to life or health.
4. Leave area immediately if:
    a. Breathing becomes difficult.
    b. Dizziness or other distress occurs.
    c. You taste or smell contaminant.
5. Use strictly in accordance with instructions, labels and limitations pertaining to this device.
6. This device may not provide a satisfactory face seal with certain physical characteristics (such as beards or gross sideburns) as outlined in ANSI Z88.2 1980, resulting in leakage in
    a. connection with the face-piece.
7. Never alter or modify this device.

PREPARATIONS FOR USE: INSPECTION

There are five inspection points, listed below, that should be checked before donning the respirator. Under no circumstances should a respirator that fails inspection be used. The respirator should be repaired or replaced.

1.	Headbands:	Check to see that the headbands still have their elasticity. Inspect for cracks or tears and make sure all buckles are in place and working properly.
2.	Face-piece:	Check face-piece for dirt, cracks, tears or holes. Inspect the shape of the face piece for possible distortion that may occur from improper storage and make sure the rubber is flexible, not stiff.
3.	Inhalation and exhalation valves	Check for cracks, tears, distortion, dirt or build-up of material between and valve seat.
4.	Cartridge holders:	Check to make sure gaskets are in place and check for cracks and damage to threads.
5.	Cartridges:	Make sure cartridges and filters are clean. Never try to clean filter or cartridge and/or filters by washing it or using compressed air. Inspect cartridges for dents, scratches or other damage particularly the metal sealing bead around the bottom.
INSTALLING		Thread cartridges into receptacles carefully. Hand tighten to prevent

CARTRIDGES: damage to threads and to insure a good seal against the gaskets.

DONNING THE RESPIRATOR

Pull out headband straps, especially the "FRONT" or forehead strap, so that their ends are at the buckles, then grip face-piece between thumb and fingers. Insert chin well into the lower part of face-piece and pull headbands back over head. To obtain a firm and comfortable fit against the face at all points, adjust headbands as follows:

A. See that straps lie flat against head.

B. Tighten lower or "Neck" straps.

C. Tighten the "Side" straps. (Do not touch forehead or "Front" strap.).

D. Place both hands on headband pad and push it towards the neck.

E. Repeat operations (B) and (C).

F. Tighten forehead or "FRONT" strap a few notches if necessary.

TEST FOR TIGHTNESS - THE RESPIRATOR MUST BE SUBJECTED TO THE FOLLOWING TIGHTNESS TEST BEFORE EACH USE.

Test respirator for leakage using a positive pressure method. Lightly place palm over exhalation valve cover. Gently exhale. A slight positive pressure should build up inside the respirator. If any leakage is detected around the facial seal, readjust head harness straps and repeat test until there is no leakage. If other facial seal leakage is detected, the condition must be investigated and corrected before another test is made. A negative pressure test may also be performed on certain types of respirators. Lightly place palms over cartridges of filter holders. Gently inhale and face-piece should collapse against the face.

The respirator must pass the tightness tests before the respirator is used. The respirator will not furnish protection unless all inhaled air is drawn through suitable cartridges or filters.

REPLACING CARTRIDGES AND FILTERS

The following conditions are indications that the cartridges or filters have served their useful life and should be replaced.

CARTRIDGES: Odor or taste of gases or vapors; eye, nose, or throat irritation.

FILTERS: Excessive breathing resistance upon inhalation.

To replace cartridges, proceed as follows:

A. Remove the expended cartridges and discard.

B. Remove the replacement cartridges from storage bags and insert into the threaded receptacles making sure gaskets are in place in cartridge holders.

C. Carefully hand tighten the cartridges to prevent damage to threads and to insure a good seal against the gaskets.

CLEANING AND SANITIZING

The face-piece (with the cartridges removed) should be cleaned and santiized after, every use with MSA Cleaner-Sanitizer, Part No. 34337 or other suitable cleaner/sanitizer.

1. Make a solution with the contents of one package added to water, following the instructions on the cleaner-sanitizer carton.

2. Immerse soiled equipment in the solution and scrub gently with soft brush until clean. Take care to clean the exhalation valve in the face-piece and other parts that exhaled air contacts.

3. Rinse in plain warm water (about 120°F) and then air dry.

CAUTION: Cleaning and Sanitizing at the recommended 120°F, temperature will avoid possible overheating and distortion of parts of the respirator assembly, which would necessitate replacement.

MAINTENANCE

This respirator must be kept in good condition to function properly. When any part shows evidence of excessive wear or failure, it should be replaced immediately with the proper part. Extra parts should be readily available. This respirator, when not in use, should be stored in a clean dry location. Do not distort rubber face-piece during storage.

CAUTION: Follow the preceding instructions carefully. They were prepared for your protection. Do not enter into any atmosphere with this respirator unless you KNOW that:

A. Cartridges are the proper type for the contaminant or contaminants present.

B. Amount of oxygen is sufficient to support life (that is, at least 19.5 percent oxygen by volume at sea level). If oxygen concentrations sufficient to support life is questionable, use Self-Contained Breathing Apparatus only.

C. Respirator does not leak (see test for tightness).

D. Cartridges do not need replacing. Discard used or exhausted cartridges.

LIMITATIONS

Following is a partial list of gaseous materials for which chemical cartridge respirators should not be used for respiratory protection regardless of concentration or time of exposure; this far-from-complete list is offered only as a guide to proper evaluations of the many contaminants found in industry. Contact your safety equipment supplier for further information on other specific materials.

Acrolein
Aniline
Arsine
Bromine
Carbon monoxide
Dimethylaniline
Dimethyl sulfate
Hydrogen cyanide
Hydrogen fluoride
Hydrogen selenide
Hydrogen sulfide
Methanol
Methyl bromide
Methyl chloride
Methylene chloride
Nickel carbonyl
Nitro compounds
Nitrobenzene
Nitrogen oxides
Nitromethane
Nitro-glycerine
Ozone
Phosgene
Phosphine
Phosphorous tri-chloride
Stibine
Sulfur chloride
Toluene diisocyanate
Vinyl chloride

Appendix 3

SELF CONTAINED BREATHING APPARATUS - SCBA

This apparatus will be used only by trained and qualified personnel. Inspections will take place monthly.

CHECKLIST FOR INSPECTION OF PRESSURE DEMAND - SCBAs:

PRIOR TO BEGINNING INSPECTION: Regulator must be connected to air cylinder via high pressure hose. Check for the presence and condition of small "O" ring in high pressure hose connector.

a. Check to assure that high pressure hose connector is tight on cylinder fitting.

b. Bypass valve closed.

c. Mainline valve closed.

d. No cover or obstruction on regulator outlet.

I. BACK & HARNESS ASSEMBLY

a. STRAPS

i. Visually inspect for complete set.

ii. Visually inspect for frayed or damaged straps that may break during use.

b. BUCKLES

i. Visually inspect for mating ends.

ii. Check locking function.

c. BACK PLATE & CYLINDER LOCK

i. Visually inspect back plate for cracks and for missing rivets or screws.

ii. Visually inspect cylinder hold down strap and physically check strap tightener and lock to assure that it is fully engaged.

2. CYLINDER & CYLINDER VALVE ASSEMBLY

a. CYLINDER

i. Physically check cylinder to assure that it is tightly fastened to back plate.

ii. Check Hydrostatic Test Date to assure it is current. (Hydrostatic test dates are located on neck of air cylinders near cylinder valve). Composite fiber-glass wrapped cylinders must be tested every three years.)

i. Visually inspect cylinder for large dents or gouges.

b. HEAD & VALVE ASSEMBLY

i. Visually inspect cylinder valve. (NIOSH no longer requires locks on cylinder valves. Some old cylinder valves may still have latches.)

ii. Visually inspect cylinder gauge for condition of face, needle, and lens.

iii. Open *cylinder calves* and listen or feel for leakage around packing. (If leakage is noted, do not use until repaired.)

3. REGULATOR & HIGH PRESSURE HOSE

a. HIGH PRESSURE HOSE & CONNECTOR

i. Listen or feel for leakage in hose or at hose to cylinder connector. (Bubble in outer hose covering may be caused by seepage of air through hose when stored
ii. under pressure. This does not necessarily mean a faulty hose.)

b. REGULATOR & LOW PRESSURE HOSE

i. Cover outlet of regulator with palm of hand. Open mainline valve and read regulator gauge. (Must read at least 1800 PSI and not more than rated cylinder pressure.)

ii. Close cylinder valve and slowly move hand from regulator outlet to allow slow flow of air. Gauge should begin to show immediate loss of pressure as air flows. Low pressure alarm should sound between 650 and 550 PSI. Remove hand completely from outlet and close mainline valve.

iii. Place mouth onto or over regulator outlet and blow. A positive pressure should be created and maintained for 5-10 seconds without any loss of air. Next suck a slight negative on regulator and hold for 5-10 seconds. Vacuum should remain constant. This tests the integrity of the diaphragm. Any loss of pressure or vacuum during this test indicates a leak in the apparatus.

iv. Open cylinder valve.

v. Place hand over regulator outlet and open mainline valve. Remove hand from outlet and replace in rapid movement. Repeat twice. Air should escape when hand is removed each time, indicating a positive pressure in chamber. Close mainline valve and remove hand from outlet.

vi. Ascertain that no obstruction is in or over the regulator outlet. Open and close bypass value momentarily to assure flow of air through bypass system.

IV FACE-PIECE & CORRUGATED BREATHING TUBE

a. FACE-PIECE

i. Visually inspect head harness for damaged serrations and deteriorated rubber. Visually inspect rubber face-piece body for signs of deterioration or extreme distortion.

ii. Visually inspect lens for proper seal in rubber face-piece, retaining clamp properly in place, and cracks or large scratches.

iii. Visually inspect exhalation valve for visible deterioration or (build-up of) foreign materials.

b. BREATHING TUBE & CONNECTOR

i. Stretch breathing tube and visually inspect for deterioration and holes.

ii. Visually inspect connector to assure good condition of threads and for presence and proper condition of "O" ring rubber gasket seal.

Note: Final test of face-piece would involve a negative pressure test for overall seal and check of exhalation valve. If doing monthly inspection, mask may now be placed against face and following tests performed. If preparing for use, don backpack, then don face-piece and use following procedure.

a. NEGATIVE-PRESSURE TEST ON FACE-PIECE

i. With face-piece held tightly to face or face-piece properly donned, stretch breathing tube to open corrugations and place thumb or hand over end of connector. Inhale. Negative pressure should be created inside mask, causing it to pull tightly to face. If negative pressure leaks down, the face-piece assembly is not adequate and should not be worn.

V. STORAGE OF UNITS

a. Cylinder refilled as necessary and unit cleaned and inspected.

b. Cylinder valve closed.

c. High pressure hose connector tight on cylinder.

d. Pressure bled off of high pressure hose and regulator.

e. Bypass valve closed.

f. Mainline valve closed.

g. All straps completely loosened and laid straight.

h. Face-piece properly stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, and damaging chemicals.

NOTE: Any discrepancy found should be cause to set unit aside until repair can be done by certified repair person.

Employee Handout Sheets Respirator

Program

These sheets can be copied and handed out to employees to train them on the written Respirator Program.

Some of the most common workplace hazards to the lungs are the lack of oxygen and the presence of harmful dust, fogs, smokes, mists, fumes, gases, vapors, or sprays including substances that may cause cancer, lung impairment, other diseases, or death. Respirators are necessary and in use at **(Your Company)** to prevent the entry of harmful substances into the lungs during breathing. Some respirators also provide a separate supply of breathable air so work can be performed where there is inadequate oxygen, or where greater protection is needed.

The prevention of atmospheric contamination at the work site is accomplished as far as possible by engineering control measures, such as enclosing or confining the contaminant-producing operation, exhausting the contaminant, or substituting with less toxic materials. However, when effective engineering controls are not enough to contain the hazard completely, while those controls are being installed, or during cleanup operations, appropriate respirators must be used.

Where respirators are necessary for health protection, specific procedures are necessary to overcome any potential deficiencies and to assure the effectiveness of the equipment. **OSHA's** Respirator Program at §1910.134 regulates the selection and use of respirators in the workplace, because the use of respirators is complex, and different hazards require different respirators.

Our company is covered by this standard, and the respirator program you received with this handout details how we select, use, and care for respirators at **(Your Company)**. In addition, as a respirator user, you receive training on respirator selection, care, and use procedures relevant to the work you perform with respirators.

This respirator program covers the following elements:

- Purpose
- Respirator selection
- Training and use
- Inspection, cleaning, maintenance and storage
- Work area surveillance
- Program evaluation
- Physical fitness determination for users
- Air quality standards

The respirator program is evaluated periodically and updated to reflect changes in respirators usage at the **(Your Company)**. You will be trained upon any relevant changes as well.

Always wear your respirator as required, according to the rules laid out in this program, for your safety and protection.

Employee Sign-Off Sheet Respirator Program

I acknowledge I have been given a copy of the Respirator Program, I have read and understood it, and I accept the program as a working document which I will support and follow in my daily work at **(Your Company).**

Employee Signature: _____

Date: ____/____/____

Supervisor's Signature: _____

Company Name: _____

Safety & Security Manager's Signature: _____

(Use the form above and/or below to document employee training/information)

I acknowledge I have been trained on and been informed how to get access to a copy of the Respirator Program. I have understood this training. I will support and follow this program in my daily work at **(Your Company)**.

Employee Signature _____

Date ____/____/____

Supervisor's Signature _____

Company Name _____

Safety & Security Manager's Signature _____

Regulation: 1910.134(b)

Respirator Program

(b) *Requirements for a minimal acceptable program.*

a. Written standard operating procedures governing the selection and use of respirators shall be established.

b. Respirators shall be selected on the basis of hazards to which the worker is exposed.

c. The user shall be instructed and trained in the proper use of respirators and their limitations.

d. [Reserved]

e. Respirators shall be regularly cleaned and disinfected. Those used by more than one worker shall be thoroughly cleaned and disinfected after each use.

f. Respirators shall be stored in a convenient, clean, and sanitary location.

g. Respirators used routinely shall be inspected during cleaning. Worn or deteriorated parts shall be replaced. Respirators for emergency use such as self-contained devices shall be thoroughly inspected at least once a month and of tar each use.

h. Appropriate surveillance of work area conditions and degree of employee exposure or stress shall be maintained.

i. There shall be regular inspection and evaluation to determine the continued effectiveness of the program.

j. Persons should not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. The local physician shall determine what health and physical conditions are pertinent. The respirator user's medical status should be reviewed periodically (for instance, annually).

k. Respirators shall be selected from among those jointly approved by the Mine Safety and Health Administration and the National Institute for Occupational Safety and Health under the provisions of 30 CFR part 11.