

Section 7  
Brieser  
Construction  
SH&E  
Manual

June 4

2015

This Respiratory Protection procedure provides standards for the selection based on the hazards to which the employee is exposed, proper use and limitations, cleaning and disinfecting, storage, inspection, appropriate surveillance of work area conditions, regular inspection, and evaluation.

Respiratory  
Protection  
Program

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>2</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

## **RESPIRATORY PROTECTION PROGRAM**

### **Brieser Construction**

#### **Purpose**

This written Respiratory Protection Program for *Brieser Construction* has been established in accordance with the respiratory protection requirements of OSHA standard 29 CFR 1910.134.

OSHA requires implementation of feasible engineering controls and/or work practice controls as the primary means of maintaining exposures within permissible limits. This Respiratory Protection procedure provides standards for the selection based on the hazards to which the employee is exposed, proper use and limitations, cleaning and disinfecting, storage, inspection, appropriate surveillance of work area conditions, regular inspection, and evaluation. These elements will be used to protect the life and health of employees when working in oxygen deficient or contaminated atmospheres.

This program covers all *Brieser Construction* employees using any type of respiratory protection, including but not limited to; filtering facepieces (dust masks), such as used for concrete cutting or welding operations; air-purifying cartridge respirators, such as used for petroleum vapors - organic vapors; and supplied-air respirators (self-contained breathing apparatus-SCBA) such as may be used for immediately dangerous to life and health environments (IDLH).

Employees shall review a copy of the program. Copies of this program may be obtained from the corporate office and within each Superintendent/Foreman's/Foreman's manual. The Manager of Safety or Designee has full authority to make the necessary decisions to ensure the success of this program. This authority includes decisions for the selection and purchasing of the respiratory equipment, and determination of proper respiratory procedures. Periodic spot checks will be made to ensure compliance with established guidelines, procedures, and applicable regulations. It is the responsibility of the Manager of Safety or Designee to implement the requirements of this program and ensure that Superintendent/Foreman and employees follow policies.

#### **General**

In the Respiratory Protection program, hazard assessment and selection of proper respiratory PPE is conducted in the same manner as for other types of PPE. In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used. References: OSHA Standards *Respiratory Protection* (29 CFR 1910.134)

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>3</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

## Definitions

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

***Assigned protection factor (APF)*** means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified by this section.

***Atmosphere-supplying respirator*** means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

***Canister or cartridge*** means a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

***Demand respirator*** means an atmosphere-supplying respirator that admits breathing air to the facepiece only when a negative pressure is created inside the facepiece by inhalation.

***Emergency situation*** means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.

***Employee exposure*** means exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

***End-of-service-life indicator (ESLI)*** means a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

***Escape-only respirator*** means a respirator intended to be used only for emergency exit.

***Filter or air purifying element*** means a component used in respirators to remove solid or liquid aerosols from the inspired air.

***Filtering facepiece (dust mask)*** means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

***Fit factor*** means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

***Fit test*** means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>4</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

**Helmet** means a rigid respiratory inlet covering that also provides head protection against impact and penetration.

**High efficiency particulate air (HEPA) filter** means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

**Hood** means a respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.

**Immediately dangerous to life or health (IDLH)** means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

**Interior structural firefighting** means the physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage. (See 29 CFR 1910.155)

**Loose-fitting facepiece** means a respiratory inlet covering that is designed to form a partial seal with the face.

**Maximum use concentration (MUC)** means the maximum atmospheric concentration of a hazardous substance from which an employee can be expected to be protected when wearing a respirator, and is determined by the assigned protection factor of the respirator or class of respirators and the exposure limit of the hazardous substance. The MUC can be determined mathematically by multiplying the assigned protection factor specified for a respirator by the required OSHA permissible exposure limit, short-term exposure limit, or ceiling limit. When no OSHA exposure limit is available for a hazardous substance, an employer must determine an MUC on the basis of relevant available information and informed professional judgment.

**Negative pressure respirator (tight fitting)** means a respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

**Oxygen deficient atmosphere** means an atmosphere with an oxygen content below 19.5% by volume.

**Physician or other licensed health care professional (PLHCP)** means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e) of this section.

**Positive pressure respirator** means a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		6-4-15	TBD
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		03	5
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

**Powered air-purifying respirator (PAPR)** means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

**Pressure demand respirator** means a positive pressure atmosphere-supplying respirator that admits breathing air to the facepiece when the positive pressure is reduced inside the facepiece by inhalation.

**Qualitative fit test (QLFT)** means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

**Quantitative fit test (QNFT)** means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

**Respiratory inlet covering** means that portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

**Self-contained breathing apparatus (SCBA)** means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

**Service life** means the period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

**Supplied-air respirator (SAR) or airline respirator** means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

**This section** means this respiratory protection standard.

**Tight-fitting facepiece** means a respiratory inlet covering that forms a complete seal with the face.

**User seal check** means an action conducted by the respirator user to determine if the respirator is properly seated to the face.

**Dusts:** Particles released during work operations such as grinding and sawing.

**Fit Testing:** The process of making sure that an employee's respirator fits properly and will provide the necessary protection without any leaks.

**Fumes:** Vaporized, condensed metals such as lead that may be present during a welding operation.

**Gases:** Examples include nitrogen, methane and carbon monoxide.

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>6</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

**Mists:** Particles of liquid released during operations such as spray painting.

**NIOSH:** National Institute for Occupational Safety & Health; an agency that establishes minimum performance standards for respirators and test and approves respirators for various uses

**Vapors:** Gaseous forms of a liquid such as paint solvents.

## **Responsibilities**

*The Program Administrator: Brieser Safety Manager*

These people are responsible for:

- Issuing and administering this program and making sure that the program satisfies the requirements of applicable federal, state or local respiratory protect requirements
- Providing initial and periodic training to employees on respiratory protection, including the selection, use, cleaning, inspecting and storage of respirators
- Maintaining the training records of all employees included in the training sessions
- Conducting hazard assessments where respiratory hazards may be present
- Assisting the respiratory protection program to ensure its continued effectiveness
- Coordinating annual medical examinations as necessary and maintaining associated records
- Purchasing respiratory protection equipment
- Assuring that all respirators purchased are NIOSH-certified

*Superintendent/Foreman, Whose Employees Are Required To Wear Respiratory Protection*

These people are responsible for:

- Knowing the hazards in their areas that require respiratory protection
- Knowing the types of respirators that need to be used
- Enforcing the wearing of respirators when needed
- Making sure employees are knowledgeable about the respiratory requirements for the areas in which they work
- Providing training on hazardous chemicals and gases to employees who are new to the jobsite or demonstrate a lack of knowledge.
- Reporting unknown or new exposure situations or deficiencies of respiratory equipment to the Manager of Safety or Designee

*Employees Who Are Required To Wear Respiratory Protection*

These people are responsible for:

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>7</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

- Wearing appropriate respiratory protection
- Properly maintaining their respiratory protection equipment and keeping it clean and in an operable condition
- Reporting any problems associated with the use of respirators and new conditions that may require investigation
- Conducting self fit tests of their respirators each time a respirator is worn
- Know the change out schedule for the particular filter being used with their respirator

### **Voluntary Use of Respirators is Prohibited**

OSHA requires that voluntary use of respirators, when not required by the company, must be controlled as strictly as under required circumstances. To prevent violations of the Respiratory Protection Standard, employees of *Brieser Construction* are not allowed voluntary use of their own or company supplied respirators of any type. ***Exception:*** Employees whose only use of respirators involves the voluntary use of filtering (non-sealing) face pieces (dust masks). When a dust mask is used in a voluntary manner then at a minimum Brieser Construction must give Appendix D to this standard, entitled "Information for Employees Using Respirators When Not Required under the Standard."

It is the policy of *Brieser Construction* that all respirators, training, and medical surveillance will be provided to the employee at no cost.

### **Program Evaluation**

Evaluations of the workplace are necessary to ensure that the written respiratory protection program is being properly implemented, and includes consulting with employees to ensure that they are using the respirators properly. Evaluations shall be conducted as necessary to ensure that the provisions of the current written program are being effectively implemented.

Program evaluation will include discussions with employees required to wear respirators in order to assess their views on the program's effectiveness and to identify any problems. Any problems that are identified during this assessment shall be corrected. Factors to be assessed include, but are not limited to:

- Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);
- Appropriate respirator selection for the hazards to which the employee is exposed;
- Proper respirator use under the workplace conditions the employee encounters; and
- Proper respirator maintenance.

### **Training and Information**

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>8</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

Effective training for employees who are required to use respirators is essential. The training must be comprehensive, understandable, and recur annually and more often if necessary. Training will be provided prior to requiring the employee to use a respirator in the workplace. The training shall ensure that each employee can demonstrate knowledge of at least the following:

- Why the respirator is necessary and how improper fit, usage, and maintenance can compromise the protective effect of the respirator
- Limitations and capabilities of the respirator
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions
- How to inspect, put on and remove, use, and check the seals of the respirator
- What the procedures are for maintenance and storage of the respirator
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators
- The general requirements of this program

*Retraining shall be conducted annually, and when:*

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

Training is divided into the following sections:

*Classroom Instruction*

- ✓ Overview of the Company Respiratory Protection Program & OSHA Standard
- ✓ Respiratory Protection Safety Procedures
- ✓ Respirator Selection
- ✓ Respirator Operation and Use
- ✓ Why the respirator is necessary
- ✓ How improper fit, usage, or maintenance can compromise the protective effect
- ✓ Limitations and capabilities of the respirator
- ✓ How to use the respirator effectively in emergency situations, including respirator malfunctions
- ✓ How to inspect, put on and remove, use, and check the seals of the respirator
- ✓ What the procedures are for maintenance and storage of the respirator
- ✓ How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators
- ✓ Change out schedule and procedure for air purifying respirators

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>9</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

### *Hands-on respirator Training*

- ✓ Respirator Inspection
- ✓ Respirator cleaning and sanitizing
- ✓ Record Keeping
- ✓ Respirator Storage
- ✓ Respirator Fit Check & Test
- ✓ Emergencies

### **Basic Respiratory Protection Safety Procedures**

- Only authorized and trained employees may use respirators. Those employees may use only the respirator that they have been trained on and properly fitted to use.
- Only physically qualified employees may be trained and authorized to use respirators. A pre-authorization and annual certification by a qualified physician will be required and maintained. Any changes in an employee's health or physical characteristics will be reported to Brieser Construction management and will be evaluated by a qualified physician.
- Only the proper prescribed respirator may be used for the job or work environment. Air cleansing respirators may be worn in work environments when oxygen levels are between 19.5 percent to 23.5 percent and when the appropriate air cleansing canister, as determined by the Manufacturer and approved by NIOSH or MSHA, for the known hazardous substance is used. SCBAs will be worn in oxygen deficient and oxygen rich environments (below 19.5 percent or above 23.5 percent oxygen).
- Employees working in environments where a sudden release of a hazardous substance is likely to occur will wear an appropriate respirator for that hazardous substance.
- Only SCBAs will be used in oxygen deficient environments, in environments with an unknown hazardous substance or unknown quantity of a known hazardous substance, or in any environment that is determined "Immediately Dangerous to Life or Health" (IDLH).
- Employees with individual respirators will be responsible for the sanitation, proper storage and security of their respirator. Respirators damaged by normal wear will be repaired or replaced by the company when returned.
- The last employee using a respirator that is available for general use will be responsible for proper storage and sanitation. All respirators will be inspected after each use and on a monthly basis.
- All respirators will be located in a clean, convenient and sanitary location.
- In the event that employees must enter a confined space, work in an environment with hazardous substances dangerous to life or health (a SCBA is required in this environment), and/or conduct a HAZMAT entry, a "buddy system" will be used. A "Safety Watchman"

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>10</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

with constant voice, visual or signal line communication must be used. Employees will follow the established Emergency Response Program and/or Confined Space Entry Program when applicable.

- Management will establish and maintain surveillance of jobs and work place conditions and degree of employee exposure or stress to maintain the proper procedures and to provide the necessary respiratory protective equipment.

### **Respirator User Policies**

Adherence to the following guidelines will help ensure the proper and safe use of respiratory equipment:

- Wear only the respirator you have been instructed to use. For example, do not wear a self-containing breathing apparatus if you have been assigned and fitted for a half-mask respirator.
- Wear the correct respirator for the particular hazard. For example, some situations, such as chemical spills or other emergencies, may require a higher level of protection than your respirator can handle. Also, the proper cartridge must be matched to the hazard (a cartridge designed for dusts and mists will not provide protection for chemical vapors).
- Check the respirator for a good fit before each use. Positive and negative fit checks should be conducted.
- Check the respirator for deterioration before and after use. Do not use a defective respirator.
- Recognize indications that cartridges and canisters are at their end of service. If in doubt, change the cartridges or canisters before using the respirator.
- Practice moving and working while wearing the respirator so that you can get used to it.
- Clean the respirator after each use, thoroughly dry it and place the cleaned respirator in a sealable plastic bag.
- Store respirators carefully in a protected location away from excessive heat, light, and chemicals.

### **Selection of Respirators**

Due to the fact that *Brieser Construction* sites are so varied, the site Superintendent/Foreman, in conjunction with the client's representative, will identify what site operations may expose the employee to airborne contaminants. If airborne contaminants exist in the breathing zone, the Site Superintendent/Foreman will provide the appropriate respirator to all exposed employees. Air monitoring will be performed by the client, *Brieser Construction*, and any other qualified person with air monitoring instrumentation on-site. The results of any site air monitoring will be provided to the site employees.

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		6-4-15	TBD
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		03	11
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

A major concern for construction workers is exposure to Respirable crystalline silica dust during construction activities. Silicosis, a scarring and hardening of lung tissue can result when particles of crystalline silica are inhaled and become embedded in the lung. The disease can be progressively debilitating and fatal. Employees of *Brieser Construction* have the potential of being exposed to silica when using rock containing silica or concrete and masonry products that contain silica sand, when performing such tasks as chipping, hammering, drilling, crushing, or hauling rock; performing abrasive blasting; and sawing, hammering, drilling, or sweeping concrete or masonry. Even materials containing small amounts of crystalline silica may be hazardous if they are used in ways that produce high dust concentrations. Therefore, it is extremely important for employees to use adequate respiratory protection when source controls cannot keep silica exposures below published exposure levels.

*Brieser Construction* has identified the general job/working conditions that may expose employees to silica and other respiratory hazards (See Section 26 Industrial Hygiene). Respirators have been chosen by evaluating the type of hazards employees are exposed to.

Again, due to the variation in construction sites and activities, additional working conditions may be identified at specific sites. If air contaminants exist in a breathing zone, the Site Superintendent/Foreman will provide appropriate respirators to all exposed employees. Any employee who fails to wear a respirator when required or to follow the procedures outlined in this program will face disciplinary action in accordance with those listed in the *Brieser Construction* Safety, Health & Environmental Manual Section 3.

Particulate filter respirators, commonly referred to as dust-filter respirators, properly fitted, may be used for short, intermittent, or occasional dust exposures such as cleanup, dumping of dust collectors, or unloading shipments of sand at a receiving point, when it is not feasible to control the dust by enclosure, exhaust ventilation, or other means. Respirators used shall be approved for protection against the specific type of dust encountered.

**Assigned Protection Factors (APFs)** *Brieser Construction* will use the assigned protection factors listed in Table 1 to select a respirator that meets or exceeds the required level of employee protection.

Table 1. -- Assigned Protection Factors<sup>5</sup>

Type of respirator <sup>1, 2</sup>	Quarter mask	Half mask	Full facepiece	Helmet/hood	Loose-fitting facepiece
1. Air-Purifying Respirator	5	<sup>3</sup> 10	50	.....	.....
2. Powered Air-Purifying Respirator (PAPR)	.....	50	1,000	<sup>4</sup> 25/1,000	25
3. Supplied-Air Respirator (SAR) or Airline Respirator					
• Demand mode	.....	10	50	.....	.....
• Continuous flow mode					

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>12</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

• Pressure-demand or other positive-pressure mode	.....	50	1,000	<sup>4</sup> 25/1,000	25
	.....	50	1,000	.....	.....
<b>4. Self-Contained Breathing Apparatus (SCBA)</b>					
• Demand mode	.....	10	50	50	.....
• Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	.....	.....	10,000	10,000	.....

**Notes:**

<sup>1</sup>Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration.

<sup>2</sup>The assigned protection factors in Table 1 are only effective when the employer implements a continuing, effective respirator program as required by this section (29 CFR 1910.134), including training, fit testing, maintenance, and use requirements.

<sup>3</sup>This APF category includes filtering facepieces, and half masks with elastomeric facepieces.

<sup>4</sup>The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can best be demonstrated by performing a WPF or SWPF study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting facepiece respirators, and receive an APF of 25.

<sup>5</sup>These APFs do not apply to respirators used solely for escape. For escape respirators used in association with specific substances covered by 29 CFR 1910 subpart Z, employers must refer to the appropriate substance-specific standards in that subpart. Escape respirators for other IDLH atmospheres are specified by 29 CFR 1910.134 (d)(2)(ii).

*Filter Classifications* - These classifications are marked on the filter or filter package

N-Series: Not Oil Resistant

- Approved for non-oil particulate contaminants
- Examples: dust, fumes, mists not containing oil

R-Series: Oil Resistant

- Approved for all particulate contaminants, including those containing oil
- Examples: dusts, mists, fumes
- Time restriction of 8 hours when oils are present

P-Series: Oil Proof

- Approved for all particulate contaminants including those containing oil
- Examples: dust, fumes, mists
- See Manufacturer's time use restrictions on packaging

*Respirators for IDLH atmospheres*

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>13</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

- The following respirators should be used in IDLH atmospheres:
  - A full-face piece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or
  - A combination full-face piece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
- Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

*Respirators for atmospheres that are not IDLH*

The respirators selected shall be adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations. The respirator selected shall be appropriate for the chemical state and physical form of the contaminant.

*Identification of Filters & Cartridges*

All filters and cartridges shall be labeled and color-coded with the NIOSH approval label. The label should not be removed and should remain legible.

*Respirator Filter & Canister Replacement*

An important part of the Respiratory Protection Program includes identifying the useful life of canisters and filters used on air-purifying respirators. Each filter and canister shall be equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant; or if there is no ESLI appropriate for conditions, a change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life. Affected employees will be provided with new respirators every day or more often if they become visibly contaminated or dirty. Each employee is responsible for maintaining and inspecting their own respirator.

*Filter & Cartridge Change Schedule (If no ESLI)*

A stock of spare respirators shall be maintained by the Site Superintendent/Foreman to allow immediate change when required.

The service life of a cartridge depends upon many factors, including environmental conditions, breathing rate, cartridge filtering capacity, and the amount of contaminants in the air. The Brieser Safety Manager will acquire the help of a Certified Industrial Hygienist if needed in order to fully assess workers exposure to hazardous environments in order to identify and apply a cartridge change schedule or implement more stringent controls such as the use of air supplying respirators. Brieser Construction will apply a safety factor to the service life estimate to assure that the change schedule is a conservative estimate.

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>14</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

You may not rely on odor thresholds and other warning properties as the primary basis for determining the service life of gas and vapor cartridges and canisters.

## Medical Evaluation

Using a respirator may place a physiological burden on employees, which can vary with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. *Brieser Construction* will provide a medical evaluation at no cost to the employee to determine the employee's ability to use a respirator. This evaluation will be conducted before the employee is fit tested or required to use a respirator in the workplace.

## Medical evaluation procedures

A medical evaluation can be done by giving an employee a medical examination or by allowing the employee to fill out a Respiratory Medical Evaluation Questionnaire. A Primary Licensed Health Care Provider must then evaluate the questionnaire. The medical evaluation will take place during normal working hours and will be kept confidential.

The medical questionnaire and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire shall be administered in a manner that ensures that the employee understands its content. The company shall provide the employee with an opportunity to discuss the questionnaire and examination results with the Primary Licensed Health Care Provider.

## Supplemental information

The following information must be provided to the Licensed Health Care Provider before he/she makes a recommendation concerning an employee's ability to use a respirator:

- The type and weight of the respirator to be used by the employee
- The duration and frequency of respirator use (including use for rescue and escape)
- The expected physical work effort
- Additional protective clothing and equipment to be worn
- Temperature and humidity extremes that may be encountered
- Any supplemental information provided previously to the Physician regarding an employee need not be provided for a subsequent medical evaluation if the information and the Physician remain the same
- The company will provide the evaluating provider with a copy of the written respiratory protection program and a copy of the OSHA Standard 1910.134

## Medical determination

In determining the employee's ability to use a respirator, *Brieser Construction* shall obtain a written recommendation regarding the employee's ability to use the respirator from the Primary Licensed Health Care Provider.

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>15</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

The written recommendation shall provide only the following information:

- Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator
- The need, if any, for follow-up medical evaluations
- A statement that the Physician has provided the employee with a copy of the Physician's written recommendation
- If the respirator is a negative pressure respirator and the Physician finds a medical condition that may place the employee's health at increased risk if the respirator is used, the Company shall provide a APR if the Physician's medical evaluation finds that the employee can use such a respirator; if a subsequent medical evaluation finds that the employee is medically able to use a negative pressure respirator, then the Company is no longer required to provide a APR

### **Follow-up medical examination**

The company shall ensure that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions in Part B of the questionnaire or whose initial medical examination demonstrates the need for a follow-up medical examination. The follow-up medical examination shall include any medical tests, consultations, or diagnostic procedures that the Physician deems necessary to make a final determination.

### **Additional Medical Evaluations**

At a minimum, *Brieser Construction* will provide additional medical evaluations that comply with the requirements of this section if:

- An employee reports medical signs or symptoms that are related to ability to use a respirator
- A physician, Superintendent/Foreman, or one of the program administrators informs the company that an employee needs to be reevaluated
- Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation
- A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.

### **Respirator Fit Testing**

Before an employee is required to use any respirator with a negative or positive pressure tight-fitting face piece, the employee must be fit tested with the same make, model, style, and size of respirator that will be used. *Brieser Construction* will ensure that an employee using a tight-fitting

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>16</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

face piece respirator is fit tested prior to initial use of the respirator, whenever a different respirator face piece (size, style, model or make) is used, and at least annually thereafter.

The company has established a record of the qualitative and quantitative fit tests administered to employees including:

- The name or identification of the employee tested
- Type of fit test performed
- Specific make, model, style, and size of respirator tested
- Date of test
- The pass/fail results for Qualitative Fit Tests or the fit factor and strip chart recording or other recording of the test results for Quantitative Fit Tests

Additional fit tests will be conducted whenever the employee, the company, the physician, the Superintendent/Foreman, or the program administrators make visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight. If after passing a fit test, the employee notifies any of the people listed above that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator face piece and to be re-tested.

### **Types of Fit Tests**

The fit test shall be administered using an OSHA-accepted Qualitative Fit Test (QLFT) or Quantitative Fit Test (QNFT) protocol. The OSHA-accepted QLFT and QNFT protocols and procedures are contained in Appendix A of OSHA Standard 1910.134.

- QLFT may only be used to fit test negative pressure air-purifying respirators that must achieve a fit factor of 100 or less.
- If the fit factor, as determined through an OSHA-accepted QNFT protocol, is equal to or greater than 100 for tight-fitting half face pieces, or equal to or greater than 500 for tight-fitting full face pieces, the QNFT has been passed with that respirator. (NOTE: If a particular OSHA standard requires the use of a full facepiece air purifying respirator capable of providing protection in concentrations up to 50 times the PEL, the respirator must be Quantitatively Fit Tested).
- Fit testing of tight-fitting atmosphere-supplying respirators and tight-fitting powered air-purifying respirators shall be accomplished by performing quantitative or qualitative fit testing in the negative pressure mode, regardless of the mode of operation (negative or positive pressure) that is used for respiratory protection.
- Qualitative fit testing of these respirators shall be accomplished by temporarily converting the respirator user's actual face piece into a negative pressure respirator with appropriate filters, or by using an identical negative pressure air-purifying respirator face piece with

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>17</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

the same sealing surfaces as a surrogate for the atmosphere-supplying or powered air-purifying respirator face piece.

- Quantitative fit testing of these respirators shall be accomplished by modifying the face piece to allow sampling inside the face piece in the breathing zone of the user, midway between the nose and mouth. This requirement shall be accomplished by installing a permanent sampling probe onto a surrogate face piece, or by using a sampling adapter designed to temporarily provide a means of sampling air from inside the face piece.
- Any modifications to the respirator face piece for fit testing shall be completely removed, and the face piece restored to NIOSH approved configuration, before that face piece can be used in the workplace.
- Fit test records shall be retained for respirator users until the next fit test is administered. Written materials required to be retained shall be made available upon request to affected employees.

### **Respirator Operation and Use**

Respirator users will be required to follow the respiratory protection safety procedures established in this program. The Operations and Use Manuals supplied by the manufacturer for each type of respirator will be maintained by the Program Administrators and be made available to all qualified users.

Each time an employee dons a respirator; a positive and a negative fit check should be performed to ensure a proper fit. These can be completed as follows:

#### *Positive pressure check*

Close the exhalation valve(s) and exhale gently into the face piece. This should build a slight positive pressure inside the face piece without any air leaking out at the seal.

#### *Negative pressure check*

Close the inhalation valve(s) and inhale gently. The face piece should collapse against the employee's face. Hold breath for 10 seconds. The face piece should stay collapsed with no air leaks.

The Site Superintendent/Foreman will conduct surveillance of the work area conditions and the degree of employee exposure or stress. When there is a change in work area conditions or the degree of employee exposure or stress that may affect respirator effectiveness, *Brieser Construction* will reevaluate the continued effectiveness of the respirator.

For continued protection of respirator users, the following general use rules apply:

- Users shall not remove respirators while in a hazardous environment

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>18</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

- Respirators are to be stored in sealed containers out of harmful atmospheres
- Store respirators away from heat and moisture
- Store respirators such that the sealing area does not become distorted or warped
- Store respirator such that the face piece is protected

### **Facial Hair Policy**

Testing and research has shown that excessive facial hair prevents a good seal from forming between the skin and respirator sealing surface. It is the policy of *Brieser Construction* that employees required to use a respirator must be clean-shaven and have no hair in the facial areas where a specific respirator must seal. A properly trimmed and groomed mustache is acceptable. However, beards, extended sideburns and goatees are unacceptable. This policy does not apply to employees who use a helmet or hood type respirator where a tight face seal is not required.

In addition, any other condition that interferes with the face-to-face piece seal or valve function will not be allowed. If an employee wears corrective glasses or goggles or other personal protective equipment, the Company shall ensure that such equipment is worn in a manner that does not interfere with the seal of the face piece to the face of the user.

### **Continuing Effectiveness of Respirators**

The company shall ensure that employees leave an area requiring respirator use under the following situations:

- To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use
- If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece
- To replace the respirator or the filter, cartridge, or canister elements.

If an employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece, *Brieser Construction* will replace or repair the respirator before allowing the employee to return to the work area.

### **Procedures for IDLH atmospheres**

It is the policy of *Brieser Construction* that if an IDLH breathing zone environment exists or may exist, then the work operation should be stopped and engineering controls put in-place to reduce the contaminants to a safe level. SAR and SCBA usage is not encouraged and therefore if a potentially IDLH site condition cannot be reduced to safe levels or eliminated, then the work should be stopped and the Manager of Safety or Designee should be contacted before work resumes.

For all IDLH atmospheres, the following emergency guidelines should be followed:

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>19</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

- One employee or, when needed, more than one employee is located outside the IDLH atmosphere
- Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere
- The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue
- The Safety Manager is notified before the employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue
- The Safety Manager, once notified, provides necessary assistance appropriate to the situation

Employee(s) located outside the IDLH atmospheres 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 either appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry; or equivalent means for rescue where retrieval equipment is not required.

Supplied Air Respirators (SAR) provides positive-pressure breathing air from a remote air cylinder via a hose to the face-piece. SARs allow longer working times at reduced stress levels. They also serve as a long duration work device and as an escape device. A SAR permits the wearer to work and move freely, within the limits of the approved hose length. At the present time, *Brieser Construction* employees will immediately leave any IDLH atmosphere, and will not be required to wear SARs.

As general information, the limitations of SARs are as follows:

- Air supply must be independent of ambient air
- Maximum hose length is 300 feet
- Hose may become entangled or cut by equipment or machinery
- Maximum inlet pressure is 125 psig, with normal operating pressures between 60-80 psig
- Breathing air must be at least ASTM Grade “D”

### **Cleaning and Disinfecting**

*Brieser Construction* will provide each respirator user with a respirator that is clean, sanitary, and in good working order. Cleaning and Storage of respirators is the responsibility of each employee assigned a respirator. Respirators should be cleaned and disinfected using the following procedures:

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>20</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

1. Before leaving the work area, each user must “wipe-down” the respirator with a wet cloth to remove any contaminates which may have settled on the equipment.

2. Respirator facepieces should be washed with detergent in warm water temperature not to exceed 120<sup>0</sup>F and scrub using a soft brush. If possible, detergents containing a bactericide should be used. Organic solvents should not be used, as they deteriorate the rubber facepiece. If bactericide detergent is not available, the detergent wash should be followed with a disinfecting rinse. Two types of disinfectant may be made from readily available household solutions. A hypochlorite solution (50 ppm) can be made by adding 5 tablespoons (50ml) of chlorine bleach to 2.5 gallons of water. An aqueous solution of iodine (50 ppm) can be made by adding 2 /12 teaspoons (6.25 ml) tincture of iodine to 2.5 gallons of water. A two minute immersion of the respirator into either solution would be sufficient for disinfecting. It should be noted that a Zephiran Chloride solution can be used along with gauze pads as a convenient spot disinfectant.

3. Respiratory equipment shall be thoroughly rinsed in warm clean water (120<sup>0</sup> F maximum) to remove all traces of detergent, cleaner, sanitizer, and disinfectant. It is very important that all proper rinsing takes place in order to prevent dermatitis.

4. Respiratory equipment shall be allowed to air dry on a clean surface or hung from a horizontal wire.

*Respirators shall be cleaned and disinfected when:*

- Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition
- Respirators issued to more than one employee shall be cleaned and disinfected before being worn by different individuals
- Respirators maintained for emergency use shall be cleaned and disinfected after each use
- Respirators used in fit testing and training shall be cleaned and disinfected after each use.

### **Respirator Inspection**

All respirators will be inspected after each use and at least monthly. Should any defects be noted, the respirator will be taken to the Program Administrator. Damaged Respirators will be either repaired or replaced.

*Respirators shall be inspected as follows:*

- All respirators used in routine situations shall be inspected before each use and during cleaning
- All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with the manufacturer's recommendations, and shall be checked for proper function before and after each use

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>21</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

- Emergency escape-only respirators shall be inspected before being carried into the workplace for use

*Respirator inspections should include:*

The primary defects to look for in the inspection of respirators and corrective actions to take are itemized below:

1) Single Use Disposable Respirators (Filtering Face pieces)

- a) Holes
- b) Proper Elasticity of Straps
- c) Condition of the metal nose clip

2) Air purifying respirators (quarter-mask, half-mask, and full facepiece)

Rubber facepiece - Check for:

- Excessive dirt (clean all dirt from facepiece)
- Cracks, tears, or holes (obtain new facepiece)
- Distortion (allow facepiece to “sit” free from any constraints and see if distortion disappears; if not, obtain a new facepiece), and
- Cracked, scratched, or loose fitting lenses (contact respirator manufacturer to see if replacement is possible; otherwise obtain a new facepiece)

Headstraps - Check for:

- Breaks or tears (replace headstraps)
- Loss of elasticity (replace headstraps)
- Broken or malfunctioning buckles or attachments (obtain new buckles), and
- Allow the facepiece to slip (replace headstrap)

Inhalation valve, exhalation valve - Check for:

- Detergent residue, dust particles, or dirt on valve or valve seat (clean residue with soap and water)
- Cracks, tears, or distortion in the valve material or valve seat (contact manufacturer for instructions), and
- Missing or defective valve cover (obtain valve cover from manufacturer)
- Make sure the gaskets are properly seated

Filter element(s) - Check for:

- Proper filter for the hazard
- Approval designation
- Missing or worn gaskets (contact manufacturer for replacement)
- Worn threads - both filter threads and facepiece threads (replace filter or facepiece, whichever is applicable)
- Cracks or dents in filter should be replaced by manufacturer

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>22</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

### 3) Atmosphere Supplying Respirators

Check facepiece headstraps, valves, and breathing tube, as for air-purifying respirators.

Hood helmet, blouse, or full suit, if applicable - Check for:

- Headgear suspension (adjust properly for you)
- Cracks or breaks in faceshield (replace faceshield), and
- Protective screen to see that it is intact and fits correctly over the faceshield, abrasive blasting hood, and blouses (obtain new screen)

### 4) Air supply system - Check for:

- Breathing air quality
- Breaks or kinks in air supply hoses and end fitting attachments (replace hose and/or fitting)
- Tightness of connections
- Proper setting of regulators and valves (consult manufacture's recommendations)
- Correct operation of air-purifying elements and carbon monoxide or high-temperature alarms

#### *Additional requirements for Emergency Use Respirators*

- Certify the respirator by documenting the date the inspection was performed, the name (or signature) of the person who made the inspection, the findings, required remedial action, and a serial number or other means of identifying the inspected respirator.
- Provide this information on a tag or label that is attached to the storage compartment for the respirator, is kept with the respirator, or is included in inspection reports stored as paper or electronic files. This information shall be maintained until replaced following a subsequent certification.

### **Respirator Storage**

Respirators are to be stored as follows:

- All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the face piece and exhalation valve.
- Emergency Respirators shall be kept accessible to the work area; stored in compartments or in covers that are clearly marked as containing emergency respirators; and stored in accordance with any applicable manufacturer instructions.

### **Repair of Respirators**

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>23</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

Respirators that fail an inspection or are otherwise found to be defective will be removed from service to be discarded, repaired or adjusted in accordance with the following procedures:

- Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator;
- Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed; and
- Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

### **Breathing Air Quality and Use**

Should it become necessary for an employee to wear an SCBA or SAR in an emergency situation, *Brieser Construction* will ensure that compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration accords with the following specifications:

- Compressed and liquid oxygen shall meet the United States Pharmacopoeia requirements for medical or breathing oxygen; and
- Compressed breathing air shall meet at least the requirements 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; and
  - Lack of noticeable odor
- Compressed oxygen will not be used in atmosphere-supplying respirators that have previously used compressed air
- Oxygen concentrations greater than 23.5% are used only in equipment designed for oxygen service or distribution
- Cylinders used to supply breathing air to respirators meet the following requirements:
  - cylinders are tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 173 and part 178)
  - cylinders of purchased breathing air have a certificate of analysis from the supplier that the breathing air meets the requirements for Grade D breathing air
  - moisture content in breathing air cylinders does not exceed a dew point of -50 deg.F (-45.6 deg.C) at 1 atmosphere pressure

<b>BRIESER CONSTRUCTION GENERAL CONTRACTORS</b>		DATE:	PROCEDURE:
		<b>6-4-15</b>	<b>TBD</b>
<b>CORPORATE SAFETY, HEALTH &amp; ENVIRONMENTAL MANUAL</b>		Revision:	PAGE:
		<b>03</b>	<b>24</b>
STANDARD OPERATING PROCEDURE:	<b>Respiratory Protection Policy</b>		
CROSS REFERENCE:	<b>29 CFR 1910.134 Respiratory Protection</b>		

- Breathing air couplings are incompatible with outlets for nonrespirable worksite air or other gas systems. No asphyxiating substance shall be introduced into breathing air lines.
- breathing gas containers shall be marked in accordance with the NIOSH respirator certification standard, 42 CFR part 84.

### **Monitoring**

The Program Administrators and Superintendent/Foreman will monitor respirator usage at *Brieser Construction* work sites. These people will conduct random inspections to assure that respirators are being used; that the respirator in use is appropriate for the work conditions; and that respirators are being worn properly and are in good working condition.

### **Program Evaluation**

This respirator program shall be evaluated at least annually to determine the overall effectiveness of the program in assuring the proper selection and use of respiratory protective equipment. Special attention will be given to proper record keeping, which includes training, fit testing, and medical records.

### **Record Keeping**

The Personnel Manager or Designee will retain written information regarding medical evaluations, fit testing, and the respirator program. This information will facilitate employee involvement in the respirator program, assist *Brieser Construction* in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA. Records pertaining to the respiratory written program will be retained at the corporate office and made available in accordance with 29 CFR 1910.1020.

**Brieser Construction**  
**24101 S. Municipal Drive**  
**Channahon, IL 60410**  
**815-521-0900 Fax: 815-521-0999**

This form is for all sites:

(Mandatory) Information for Employees Using Respirators When not required Under the Standard

Respirators are an effective method of protection against designated hazard 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 workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the workers. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by the 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, 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 particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

*I hereby certify that I have read and understand the information presented on this form.*

**EMPLOYEE'S NAME**

**EMPLOYEE'S SIGNATURE**

\_\_\_\_\_

*Print*

\_\_\_\_\_

*Sign and Date*

<b>ROUTING</b>	<b>PERSONEL MANAGER</b>	Add to Training Database
----------------	-----------------------------	--------------------------



## AIR PURIFYING RESPIRATOR FACEPIECE QUALITATIVE FIT TESTING RECORD

<b>Company Name:</b>	Brieser Construction Company	<b>Company Representatives Name:</b>	
<b>Address:</b>	24101 S. Municipal Drive Channahon, IL 60410	<b>Telephone Number:</b>	
		<b>Fax Number:</b>	
<b>Date:</b>			

### INSTRUCTED ON ( PLEASE CHECK ✓ )

<b>Donning Respirator:</b>	<b>Negative Pressure Check:</b>
<b>Doffing Respirator:</b>	<b>Positive Pressure Check:</b>
<b>Cleaning Respirator:</b>	<b>Irritant Smoke Test:</b>
<b>Inspecting Respirator:</b>	<b>Banana Oil/Amyl Acetate:</b>
<b>Storing Respirator:</b>	<b>Bitrex Taste Test:</b>

EMPLOYEE'S NAME	BRAND	MODEL #	MATERIAL	TYPE (HF or FF)	SIZE	TEST MEDIA	PASS/FAIL

<b>Trained/Fit Tested By:</b>		<b>Employee's Name (Print):</b>	
<b>Signature:</b>		<b>Employee's Signature:</b>	

<b>ROUTING</b>	<b>PERSONEL MANAGER</b>	Add to Training Database
	<b>SCAN</b>	SAFETY/RESPIRATORY RECORDS/FIT TESTS/MMDDYY

**BRIESER CONSTRUCTION  
SAFETY & HEALTH MANUAL  
SECTION 7  
RESPIRATORY PROTECTION  
SUB-SECTION  
TRAINING  
SAFETY MEETING SIGN-UP SHEET**



**ATTENDANCE ROSTER  
BRIESER CONSTRUCTION**

<b>EMPLOYEE NAME (Print or Type)</b>	<b>EMPLOYEE SIGNATURE</b>	<b>TRADE</b>	<b>JOB TITLE</b>
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			

## Respiratory Protection Learning Exercise

### Brieser Construction

Score  %

<b>Employees Name:</b>		<b>Date:</b>	
<b>Company:</b>		<b>Instructor:</b>	
		<b>Job Title:</b>	

*Answer each of the following questions “True” or “False” by circling the appropriate letter.*

- |          |          |  |
|----------|----------|--|
| <b>T</b> | <b>F</b> | 1. You are responsible for your respiratory protection.  |
| <b>T</b> | <b>F</b> | 2. The lungs can tell the difference between clean air and contaminated air.                                       |
| <b>T</b> | <b>F</b> | 3. The two major types of respiratory hazards are oxygen deficiency and contamination.                             |
| <b>T</b> | <b>F</b> | 4. Engineering controls can provide 100% protection against respiratory hazards.                                   |
| <b>T</b> | <b>F</b> | 5. Air-purifying respirators protect against oxygen deficiency.  |
| <b>T</b> | <b>F</b> | 6. Filters and chemical cartridges can be combined to protect against multiple respiratory atmospheres.            |
| <b>T</b> | <b>F</b> | 7. Air-supplied respirators supply uncontaminated breathing air from the surrounding atmosphere.                   |
| <b>T</b> | <b>F</b> | 8. Demand-airflow respirators supply air only when the user inhales.   |
| <b>T</b> | <b>F</b> | 9. SCBA respirators can be used in IDLH atmospheres.   |
| <b>T</b> | <b>F</b> | 10. Tested and approved respirators can be identified by the letters “NIOSH/MSHA” on the facepiece.                |
| <b>T</b> | <b>F</b> | 11. Any respirator will fit correctly if you tighten the straps enough.  |
| <b>T</b> | <b>F</b> | 12. Beards, hair and glasses can interfere with a good facepiece seal.   |
| <b>T</b> | <b>F</b> | 13. Fit tests must be performed by a physician.  |
| <b>T</b> | <b>F</b> | 14. Respirators should be inspected before and after each use.   |
| <b>T</b> | <b>F</b> | 15. The company safety director is responsible for inspecting your respirator                                      |
| <b>T</b> | <b>F</b> | 16. Solvents should never be used to clean plastic or rubber parts of a respirator.                                |
| <b>T</b> | <b>F</b> | 17. Respirators should be stored away from sunlight, heat, extreme cold, excessive moisture or damaging chemicals. |
| <b>T</b> | <b>F</b> | 18. SCBAs for emergency use should be stored inside the danger area.   |

**Respiratory Protection Learning Exercise**  
**Brieser Construction**  
*Answer Sheet*

- T 1. You are responsible for your respiratory protection.
- F 2. The lungs can tell the difference between clean air and contaminated air.  
**Lungs take in air whether it's contaminated or not.**
- T 3. The two major types of respiratory hazards are oxygen deficiency and contamination.
- F 4. Engineering controls can provide 100% protection against respiratory hazards. **In many situations, engineering controls aren't sufficient to remove all contaminants. In these situations, administrative controls and respirators may be needed.**
- F 5. Air-purifying respirators protect against oxygen deficiency. **Air-purifying respirators only purify air; they do not supply it. In oxygen-deficient atmospheres, air-supplied respirators must be used.**
- T 6. Filters and chemical cartridges can be combined to protect against multiple respiratory atmospheres.
- F 7. Air-supplied respirators supply uncontaminated breathing air from the surrounding atmosphere. **Air-supplied respirators provide uncontaminated air from a source other than the surrounding atmosphere.**
- T 8. Demand-airflow respirators supply air only when the user inhales.
- T 9. SCBA respirators can be used in IDLH atmospheres.
- F 10. Tested and approved respirators can be identified by the letters "NIOSH/MSHA" on the facepiece. **Tested and approved respirators can be identification number preceded by the prefix "TC" (for "Tested and Certified")**
- F 11. Any respirator will fit correctly if you tighten the straps enough. **Straps should not be overtightened. If a good fit cannot be obtained, a different brand or size of respirator must be used.**
- T 12. Beards, hair and glasses can interfere with a good facepiece seal.
- F 13. Fit test must be performed by a physician. **Fit test can be performed by a qualified employee or supervisor. Fit checks can be performed by trained users.**
- T 14. Respirators should be inspected before and after each use.
- F 15. The company safety director is responsible for inspecting your respirator
- T 16. Solvents should never be used to clean plastic or rubber parts of a respirator.
- T 17. Respirators should be stored away from sunlight, heat, extreme cold, excessive moisture or damaging chemicals.
- F 18. SCBAs for emergency use should be stored inside the danger area.  
**SCBAs for emergency use should be stored outside the danger area.**