

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 1 of 22

POLICY

Midland Engineering Co., Inc. makes every attempt to provide for a safe and hazard free workplace. If any situation should occur in which respiratory protection is required this plan will be immediately implemented. Failure to comply with this or any safety policy of Midland Engineering Co., Inc., or the willful tampering or destruction of any safety equipment provided for your protection, will be grounds for disciplinary action and/or termination.

SUMMARY

The Respiratory Protection Program outlines protection procedures so that personnel can have a complete understanding of Midland Engineering Co., Inc.'s, and of their own responsibilities as participants of the program. The proper selection and use of safety equipment, respiratory hazards, record-keeping requirements, fit testing, and information and training according to 29 CFR 1910.134 are covered in this program. In those instances where engineering controls are not feasible respiratory protection will be provided at no cost to employees of Midland Engineering Co., Inc.

DEFINITIONS

Air Purifying Respirator - A device to protect the wearer from inhalation of harmful contaminants by cleansing the atmosphere through mechanical and/or a chemical filtering media.

Exhalation Valve - A device that allows exhaled air to leave the respirator and prevents outside air from entering through the valve.

Immediately Dangerous to Life and Health (IDLH) - Conditions that pose an immediate threat to life or health, or conditions that pose an immediate threat of severe exposure to contaminants which are likely to have adverse cumulative or delayed effects on health.

Inhalation Valve - A device that allows air to enter the face piece of a respirator and prevents exhaled air from leaving the face piece through the intake opening.

Negative Pressure Respirator - A respirator that in the event of a leak would leak contaminated air into the face piece.

Oxygen Deficiency - An atmosphere having less than the percentage of oxygen found in normal air. Normally air contains 21% to 19% oxygen.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
			Revision Date:	Initial Version
Chapter 31-Respiratory Protection			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 2 of 22

Permissible Exposure Limit - The permitted dermal or inhalation exposure to any material as designated by OSHA.

Positive Pressure Respirator (PAPR) - A respirator that supplies air at a positive pressure and in the event of a leak, would leak clean air out of the face piece.

SCBA - Self Contained Breathing Apparatus

Supplied Air Respirator - A device that protects the wearer from inhalation of harmful contaminants.

Threshold Limit Value (TLV) - An airborne concentration of a substance to which nearly all personnel can be repeatedly exposed, day after day, without adverse health effects.

Time Weighted Average (TWA) - The average concentration for a normal 8 hour workday and 40 hour workweek to which nearly all personnel may be repeatedly exposed, day after day, without adverse health effects.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
			Revision Date:	Initial Version
Chapter 31-Respiratory Protection			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 3 of 22

RESPONSIBILITIES

Employees

- Use the appropriate respirator as designated.
- Maintain face condition so as to allow for a good face piece seal.
- Inspect personal respirator before each use.
- Do not wear contact lenses when using any respirator.
- Do not wear eyeglasses when using a full-face respirator.
- Perform positive and negative fit checks prior to use.
- Responsible for assuring that their respirator is kept clean, sanitary and in good working condition.

Management

- The Safety Director/Manager shall be the Respiratory Program administrator and must be knowledgeable of the complexity of the program, able to conduct evaluations and have the proper training.
- Select appropriate respirators and cartridges for use at the facility or job site.
- Provide information, training, and instruction to employees on the selection, use, maintenance, and care of respirators.
- Inspect emergency and non-emergency respirators.
- Fit test employees annually who use respirators.
- Provide cleaning and disinfecting capabilities for respirators.
- Perform evaluations to determine the continued effectiveness of the respirator program.
- Perform workplace and personnel monitoring.
- Ensure employees leave the area to wash, change cartridges, or if they detect break-through or resistance
- Fit test employees who use respirators on a quarterly basis.
- Inspect required respiratory protection work area to ensure personnel are wearing protection.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 4 of 22

SELECTION OF RESPIRATORS

The effectiveness of personal respiratory protection rests with the proper matching of the protective system to the hazard. Respirators are designed to protect against specific conditions. Using the wrong type of respirator for the conditions in which you are working is the same as not using any protection at all. It is important that you understand this because serious injuries can occur when you think you are protected when you are not. The company will select the proper respiratory protection based on the hazards to which the worker is exposed. The company will make all selections and only MSHA/NIOSH certified respirators would be selected and used. The supervisors and managers will conduct periodic inspections of the work area to ensure adequate ventilation and hazard free working conditions exist.

RESPIRATOR TYPES

The following respirators will be supplied to employees depending on the appropriate hazard identified:

Dust Masks - Single use disposable dust mask respirators provide protection against non-toxic airborne matter (i.e. dusts, mists)

Chemical Cartridge Respirators - Negative pressure air purifying respirators provide protection against airborne particulate matter. (i.e. organic vapors, alkaline gases, acid gases, pesticides, mists and fumes, radioactive particulate and combinations of the above materials) They include ½ mask with twin cartridges, full-face mask with twin cartridges, and disposable ½ mask units.

Powered Air Purifying Respirators (PAPR) - Positive pressure air purifying respirators supply air to the respirator by positive pressure protecting against particulate and/or gases and vapors. (Full-face mask)

Air Supplied Respirators - Provide protection against oxygen deficient or enriched environments and in situations where high or unknown concentrations of toxic gas, vapors or particulate are present. (SCBA, airline, loose fitting suits, and hoods)

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 5 of 22

RESPIRATOR DETERMINATION

The selection of respirators for specific jobs or work areas will be based on the following:

- Type of use intended for the respirator
- Toxicological characteristics of the contaminant and the potential for exposure
- Possibility of skin exposure
- Potential of eye irritation from contaminant
- Warning properties of contaminant
- Sorbet characteristics
- IDLH concentrations
- Employee characteristics
- Industrial exhaust which may contain elements other than hot air
- Any painting or adhesive application in a space of inadequate ventilation
- When working with asbestos, silica, or lead
- Or any other identified or suspected hazard at a work site whose primary point of contact is the respiratory system

RESPIRATOR SELECTION GUIDE

The following chart will be used by the safety coordinator as a guide for recommending a respirator for a particular task depending on the potential hazard:

Respirator Type:

½ face respirator (air purifying)
 Full face respirator (air purifying)
 Positive pressure air purifying respirator (PAPR)
 Continuous flow
 Pressure demand
 SCBA

Allowable Usage:

10x the PEL or less
 50x the PEL or less
 50x-100x the PEL or less
 100x the PEL or less
 1000x the PEL or less
 > 1000x the PEL

The life expectancy of a respirator cartridge depends on the quantity and size of particles in the atmosphere. Therefore, when there is a change in breathing resistance (i.e. hard to inhale) stop the work activities, leave the respirator zone, and change the cartridge. You should not be able to smell any odors in the work atmosphere when the respirator fits and the cartridge is functioning properly. If you begin to smell odors, stop the work activities, leave the respirator zone, and change the cartridge. If you have any questions ask your supervisor or managers. (Note: Some chemicals are odorless, therefore, use the breathing resistance factor as a guide for changing cartridges.)

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 6 of 22

IMMEDIATELY DANGEROUS TO LIFE AND HEALTH (IDLH)

Where exposure cannot be identified or reasonably estimated, the atmosphere shall be considered immediately dangerous to life or health (IDLH). All oxygen-deficient atmospheres (less than 19.5% O₂ by volume) shall be considered IDLH. Supplied-air breathing apparatus, such as self-contained respirator with full face piece operated in pressure demand mode (SCBA), or TYPE-C supplied-air respirator with full face piece operated in pressure demand mode with an emergency backup SCBA or escape bottle operated in a pressure demand mode must be used in atmospheres Immediately Dangerous to Life and Health (IDLH). The user must be able to readily escape conditions. Standby persons must maintain communication with the employee in the IDLH environment. Standby person must have proper training and equipment and familiar with notification procedures and when to take necessary action. Rescue services must be on-site for immediately dangerous to life and health (IDLH) conditions while work is being performed.

CLEANING & DISINFECTING A RESPIRATOR

A great deal of responsibility and care is assigned to the use and maintenance of respirators as personal protection equipment so that you can be assured that the mask will perform its function every time you use it. Each employee using a respirator must clean and disinfect the unit and change the filter cartridges after each use or as appropriate. The following are basic steps used to clean and disinfect the rubber material of a respirator:

- Wash with warm soap and water
- Rinse in a disinfecting solution
- Rinse thoroughly in clean water
- Air dry

Any respirator not issued to an individual employee (i.e. emergency respirator) should be returned to the safety coordinator for cleaning and disinfecting immediately after use. If you have any questions or problems ask your supervisor or manager.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 7 of 22

LOCATION & PROPER STORAGE OF RESPIRATORS

If you are assigned a task, which requires the use of a respirator, you can obtain one by simply asking your supervisor or manager to provide you with one. If the mask does not fit properly, request the supervisor or manager to supply you with another mask.

- Respirators must be stored in a convenient, clean, and sanitary location
- Respirators should be stored so as to prevent any damage or deterioration to the valves and rubber material.
- Respirators should be protected from dust, sunlight, temperature extremes, moisture, and chemicals.
- Emergency use respirators should be kept in emergency storage cabinets.

The respirators can be reused many times and still maintain their filtering effectiveness. Once you have finished your work task examine the respirator for cuts and tears, and disinfect and clean. The respirator will then be resealed in a plastic bag and stored for future use. If you stop using the respirator and wish to continue your task in a short period of time, simply remove it from your face and place it in the plastic bag. The filter cartridges will continue to absorb vapors whether you are wearing the mask or not. That is why it is very important that you reseat the mask in the plastic bag if you wish to wear it again for protection against potential hazards.

INSPECTION OF RESPIRATORS

The respirators are cleaned and inspected on a regular basis. All masks are stored in sealed plastic bags to keep them clean and to ensure the quality of the filter cartridges. Any respirator inspection includes the following:

- Checking tightness of connections and the condition of the face piece, headbands, straps, valves, connecting tubes and hoses, and cartridges/canisters.
- Checking for pliability and signs of deterioration of rubber parts.
- Replacement or repair of worn or defective parts.

A thorough inspection will occur each time respirators are used routinely. All respirators, emergency respirators, including SCBA, will be inspected monthly and after use by the safety coordinator.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 8 of 22

MEDICAL SURVEILLANCE

It will be determined medically that an employee is physically able to wear a respirator before that individual is assigned a job requiring the use of a respirator. Medical evaluations must be confidential and conducted during normal working hours. This is to provide an experience that is convenient, understandable, and gives our employees the chance to discuss results with PLHCP. In addition, once a determination is made as to physical ability to wear a respirator and perform the work task, a review of the employee's health status will be made on an annual basis. The treating physician will determine what medical factors are pertinent, which tests will be performed, such as a pulmonary function test, and ultimately whether or not an employee may wear a respirator. The following information will be obtained from the employee:

- History of respiratory disease, such as, asthma, emphysema, or chronic lung disease.
- Work History, such as, previous exposure to asbestos, silica, cotton dust, beryllium, etc.
- Any other medical information, such as, physical deformities, use of medication, and/or increased heart rate.

The following factors will be evaluated to determine a person's ability to wear a respirator:

Pulmonary/Lungs - Respirator wearers should be examined for any evidence of respiratory problems. The individual may be able to perform work adequately with continuous flow air supplied respirators. Breathing difficulty may not prohibit the wearer of a respirator if the employee is reasonably comfortable using the device, and a proper medical clearance has been obtained.

Pulmonary Function Test - These tests are known as FVC, Forced Vital Capacity, on DLSB, singular-breathing diffusion. There are seven tests, which take about one hour. The employee breaths into a mouthpiece attached to a computer that test for forced vital capacity, tidal breathing, maximum volume ventilation, functional residual capacity, diffusion test, post-dilator study-forced vital capacity, and dilator-maximum voluntary ventilation. These tests are graphed and will show possible asthma, emphysema, and obstruction.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 9 of 22

Cardiovascular (Heart & Blood Flow) - The use of air purifying, demand type, or pressure demand supplied air devices may pose serious problems for employees with cardiovascular disease. These employees may be able to use continuous flow respirators with proper medical clearance. Consideration should be given to job assignments.

Psychological Limitations - Not clearly defined, some psychological limitations may prevent employees from wearing a respirator, such as paranoia to enclosed places. Consult a physician for advice in these situations.

Facial Limitations - Anything that can affect the correct tight-seal of a respirator to an employee's face must be prohibited and limitations could include facial hair, facial deformities, dentures, glasses, etc.

SURVEILLANCE OF WORK CONDITIONS

The supervisors or managers will conduct personnel and work site inspections on a routine basis to help determine the adequacy of protective equipment. Where respirators are currently in use and where exposure levels have not been documented, conservative estimates of employee potential exposure and equipment requirements will be made. In some situations, industrial hygiene monitoring will be conducted to evaluate the level of potential contaminants. The surveillance of work conditions will consist of the following:

- Identification of the substance that may cause employee exposure.
- Whether feasible engineering controls are or can be provided to reduce or eliminate exposure.
- The estimated average and potential maximum exposure concentration on a time weighted average (TWA) basis that can be reasonably expected for normal operation. This estimate will be based on an 8 hour daily exposure and include the sum of exposure during routine operation, handling, and preparation of substances used. This estimate will be made using the best information available and will include results of industrial hygiene monitoring. The estimate will be made for each job classification.
- The estimated peak exposures that can be expected from any short-term exposure. As an example during clean up and maintenance operations.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 10 of 22

- The location in the operation, type of respirator required, and other personal protective equipment.
- Frequency of periodic monitoring to be conducted. The periodic reviews of airborne contaminants are made to ensure employee protection and meet regulatory compliance. This review includes air sampling, process and work practice, raw materials, intermediates, product review, engineering controls, and emergency procedures.

EMERGENCY RESPIRATORY PROTECTION

Emergency escape conditions have the potential for unexpected and rapid release of dangerous concentrations of gases or vapors. There are three conditions for which respirators are used in emergency situations:

- Employees self rescue when process excursions, spills, etc., create a sudden potentially hazardous environment.
- For the rescue of personnel trapped or overcome in a hazardous environment.
- To shut down or repair an operation that is creating a hazardous environment.

RESPIRATORY PROTECTION PROGRAM REVIEW

The safety coordinator will perform annual evaluations of the respiratory protection program to ensure the continued effectiveness of the program. This evaluation will address at a minimum:

- Employee motivation and subjective evaluation.
- Actual usage of respirators.
- Written program versus actual program.
- Modifications necessary to the program due to changes in operation, technology advances, or regulatory revisions.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
			Page:	Page 11 of 22
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety		

INFORMATION-INSTRUCTION-TRAINING

Initial training and then on an annual basis, Midland Engineering Co., Inc. will provide training to all applicable personnel required to wear a respirator as part of their job. Training must be completed before required use is applicable. Respirator training will consist of the following elements:

- An explanation of the nature of the hazards that may be present.
- An explanation as to why respirators are required.
- A discussion of the use of respirators and the proper selection processes, including supplied air respirators.
- A discussion of the capabilities and limitations of the respirator to be used.
- A discussion of the use of respirators in emergency situations.
- A discussion of the care, inspection, and maintenance procedures for the respirator.
- A discussion of medical signs & symptoms of effective use.
- Familiarization with areas and times respirators must be worn at the facility or work site.
- Each individual will be given the opportunity to handle and wear the respirator in normal air for a familiarization period.
- Each individual will be fitted with a respirator.
- Each individual will be taught two methods for testing the seal of the respirator.

Records of the annual training will be retained at the corporate office for a period of five years. Fit testing records will be retained until a more current record is available. On a quarterly basis, the respirator wearer must demonstrate to their supervisor/manager the ability to properly put on a respirator, select the correct cartridge/canister, and dispose of a used cartridge/canister. Any employee who fails to demonstrate compliance with those items listed above to their supervisor/manager will be retrained.

RECORDS MAINTENANCE

All records that are generated from the respiratory protection program are located at the corporate office. Any records generated at a particular site will be kept on file with the site supervisor. The following records will be maintained:

- Industrial hygiene monitoring (if available)
- Medical surveillance and job assessment data
- Respirator information and training acknowledgment form
- Fit test records
- Emergency equipment inspection/maintenance tags
- Respirator monthly inspection form

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
			Page:	Page 12 of 22
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety		

Respiratory Protection Assessment Form

Job Site & Address: _____

Phone Number: _____ Job Description: _____

Recommended Respiratory Protection (circle those that apply):

Self Contained	Supplied Air	Chemical Cartridge
Dust Mask	Powered Air	Pre-Filter
Dust/Mist Filter	HEPA Filter	Dust/Mist/Fume Filter
Other: _____		

Atmospheric Monitoring Results (if known please attach): _____

Other Special Respiratory Protection Requirements: _____

Identified Respiratory Protection Zones or Areas at the Site: _____

Respiratory Protection Storage Area: _____

Has the employee had instruction and training? Yes No
 Has the employee had fit testing? Yes No

Investigator Signature: _____ Date: _____

Note: The respirators recommended on this page are the minimal required protection. Greater protection may be necessary if monitoring data should suggest otherwise, or if warranted by the particular conditions at the time.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
			Revision Date:	Initial Version
Chapter 31-Respiratory Protection			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 13 of 22

Air Supplied Respirators

Breathing air used by employees will be at least Grade D air at a minimum. Grade D air must:

- Be at least 19.5% oxygen but no more than 23.5%
- Have < 5mg/m³ of hydrocarbons
- Have < 20 ppm CO
- Have < 1000 ppm CO₂
- Have no unusual odor

Breathing air used by employees may be supplied to respirators from cylinders or air compressors or through air filtering devices designed to purify plant air.

All breathing air cylinders will be tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (401 CFR Part 178).

Breathing air containers will be marked accordingly.

All airline couplings shall be incompatible with outlets for other gas systems.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
Preparation: Safety Mgr Authority: President Issuing Dept: Safety			Next Review Date:	
			Page:	Page 14 of 22

Respirator Fit Testing

Anyone assigned a job in which a respirator may be worn will be fit tested to determine whether a particular size and brand of respirator provides a satisfactory seal against the face. Employees are required to pass qualitative fit test (QLFT) before initial use, if a different respirator is used, and annually. This determination will be made using a qualitative fit test method.

- The individual to be fit tested is asked to don the respirator and wear it for a familiarization period prior to the actual fitting. When the familiarization period is over the individual will be fitted.
- A sufficient quantity of the qualitative test solution will be generated near the respirator wearer. The individual will then perform a series of head, face, body movements, and acknowledge whether any irritation is perceived.
- When an individual is successfully fitted with a respirator, the brand, size, and type of respirator will be recorded. The date the fitting was conducted; the signature of the individual who conducted the fitting, and the signature of the individual fitted will also be recorded.
- The employee will then be apprised of the necessary information so that he/she may obtain the correct respirator.

Field Positive-Negative Fit Test

As part of the fit test portion of respirator training and a field fit check, the individual is taught to perform two field fit check methods to determine if the respirator is fitting each time it is donned. These two methods are:

Negative Pressure Test - Performed by closing off the inlet valves to the respirator, inhaling gently, and briefly holding the breath. Collapse of the face piece indicates a good fit.

Positive Pressure Test - Performed by closing off the exhalation valve, and exhaling gently. If a slight positive pressure builds up in the face piece (respirator puffs outward), a good fit is indicated.

Note: In order to be fit tested, the individual must pass a physical exam as described in the medical surveillance section of this program. The employee must be fit tested in each type of respirator to be worn on the job (i.e. ½ face and full face). This does not apply to disposable respirators (dust mask) or positive pressure respirators.

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 15 of 22

Respirator Specification & Fit Test Record

Employee Name: _____ Date: _____

Job Description: _____

Recommended Respiratory Protection: _____

Respirator Size: _____ Respirator Manufacturer: _____

NIOSH Approval Number: _____

Fit Test Performed: _____

Any Limitations? Yes No If Yes, explain: _____

Respirator Maintenance:

Cleaning: __Daily __Weekly other _____

Disposal: __Daily __Weekly other _____

Cleaning By __Individual other _____

Employee Signature: _____

Individual Who Conducted Fit Test: _____

Approved By: _____

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 16 of 22

Respirator Monthly Inspection Form

Department: _____

Employee Name: _____ Date: _____

Type of Respirator: _____

Respirator Inspection Checklist

<u>Component</u>	<u>Satisfactory</u>	<u>Non-Satisfactory</u>	<u>Explanation</u>
Face Piece	_____	_____	_____
Valves	_____	_____	_____
Cartridge	_____	_____	_____
Straps	_____	_____	_____
Rubber	_____	_____	_____
Storage	_____	_____	_____
Other _____	_____	_____	_____
Other _____	_____	_____	_____
Other _____	_____	_____	_____

Parts Replaced: _____

Parts on Order: _____

Employee Signature: _____

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 17 of 22

Respiratory Protection Program Quiz & Acknowledgment of Training

Name: _____ Date: _____

1. A respirator is a device to protect the wearer from inhalation of harmful contaminants. True False
2. Oxygen deficiency is an atmosphere having less than 21% to 19% of oxygen found in normal air. True False
3. Supplied air respirator is a device to protect the wearer from inhalation of harmful contaminants by delivering contamination free breathing air to the wearer. True False
4. Always perform a positive and negative fit check before each use. True False
5. The respirator user is responsible for assuring that their respirator is kept clean, sanitary, and in good working condition. True False
6. Employees using a respirator must clean and disinfect the unit and change the filter cartridges after each use or as appropriate. True False
7. Basic respirator cleaning steps include:
 - a. Wash with warm soap and water
 - b. Rinse in a disinfecting solution
 - c. Rinse thoroughly in clean water
 - d. All of the above
8. Storage of a respirator includes:
 - A. Respirators must be stored in a convenient, clean, and sanitary location
 - B. Respirators should be stored so as to prevent any damage or deterioration to the valves and rubber material.
 - C. Respirators should be protected from dust, sunlight, temperature extremes, moisture, and chemicals.
 - D. All of the above
9. Respirator inspection includes the following:
 - A. Checking tightness of connections and the condition of the respirator that can include the face piece, headbands and straps, valves, connecting tubes and hoses, and cartridges/canisters.
 - B. Checking for pliability and signs of deterioration of rubber parts.
 - C. Replacement or repair of worn or defective parts.
 - D. All of the above

I acknowledge that I have received instruction, information, and training on the company Respiratory Protection Program. I understand the importance of the proper use, maintenance, storage, and cleaning of respirators provided to me. I have been instructed on the Positive-Negative Fit Test procedure and will complete the test before starting my assigned job task. If I do not understand any instructions I will ask questions.

Participant Signature: _____ Date: _____

Instructor Signature: _____ Date: _____

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date:	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 18 of 22

Voluntary Respirator Use Acknowledgement Form

Name: _____ Date: _____

In accordance with Appendix D, of 29 CFR 1910.134 the following information is provided for employees using respirators when not required under the standard.

This information is mandatory.

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

You should do the following:

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

Received by: _____

Date: _____

Supervisor Signature _____

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
			Page:	Page 19 of 22
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety		

MEDICAL EVALUATION QUESTIONNAIRE

Can you read (circle one): Yes/No

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

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: _____

2. Your name: _____

3. Your age (to nearest year): _____

4. Sex (circle one): Male/Female

5. Your height: _____ ft. _____ in.

6. Your weight: _____ lbs.

7. Your job title: _____

8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code): _____

9. The best time to phone you at this number: _____

10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes/No

11. Check the type of respirator you will use (you can check more than one category):

a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).

b. _____ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (circle one): Yes/No

If "yes," what type(s): _____

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 20 of 22

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do you **currently** smoke tobacco, or have you smoked tobacco in the last month: Yes/No

2. Have you **ever had** any of the following conditions?
 - a. Seizures (fits): Yes/No
 - b. Diabetes (sugar disease): Yes/No
 - c. Allergic reactions that interfere with your breathing: Yes/No
 - d. Claustrophobia (fear of closed-in places): Yes/No
 - e. Trouble smelling odors: Yes/No

3. Have you **ever had** any of the following pulmonary or lung problems?
 - a. Asbestosis: Yes/No
 - b. Asthma: Yes/No
 - c. Chronic bronchitis: Yes/No
 - d. Emphysema: Yes/No
 - e. Pneumonia: Yes/No
 - f. Tuberculosis: Yes/No
 - g. Silicosis: Yes/No
 - h. Pneumothorax (collapsed lung): Yes/No
 - i. Lung cancer: Yes/No
 - j. Broken ribs: Yes/No
 - k. Any chest injuries or surgeries: Yes/No
 - l. Any other lung problem that you've been told about: Yes/No

4. Do you **currently** have any of the following symptoms of pulmonary or lung illness?
 - a. Shortness of breath: Yes/No
 - b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
 - c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
 - d. Have to stop for breath when walking at your own pace on level ground: Yes/No
 - e. Shortness of breath when washing or dressing yourself: Yes/No
 - f. Shortness of breath that interferes with your job: Yes/No
 - g. Coughing that produces phlegm (thick sputum): Yes/No
 - h. Coughing that wakes you early in the morning: Yes/No
 - i. Coughing that occurs mostly when you are lying down: Yes/No
 - j. Coughing up blood in the last month: Yes/No
 - k. Wheezing: Yes/No
 - l. Wheezing that interferes with your job: Yes/No
 - m. Chest pain when you breathe deeply: Yes/No
 - n. Any other symptoms that you think may be related to lung problems: Yes/No

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
Chapter 31-Respiratory Protection			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 21 of 22

5. Have you **ever had** any of the following cardiovascular or heart problems?

- a. Heart attack: Yes/No
- b. Stroke: Yes/No
- c. Angina: Yes/No
- d. Heart failure: Yes/No
- e. Swelling in your legs or feet (not caused by walking): Yes/No
- f. Heart arrhythmia (heart beating irregularly): Yes/No
- g. High blood pressure: Yes/No
- h. Any other heart problem that you've been told about: Yes/No

6. Have you **ever had** any of the following cardiovascular or heart symptoms?

- a. Frequent pain or tightness in your chest: Yes/No
- b. Pain or tightness in your chest during physical activity: Yes/No
- c. Pain or tightness in your chest that interferes with your job: Yes/No
- d. In the past two years, have you noticed your heart skipping or missing a beat: Yes/No
- e. Heartburn or indigestion that is not related to eating: Yes/ No
- f. Any other symptoms that you think may be related to heart or circulation problems: Yes/No

7. Do you **currently** take medication for any of the following problems?

- a. Breathing or lung problems: Yes/No
- b. Heart trouble: Yes/No
- c. Blood pressure: Yes/No
- d. Seizures (fits): Yes/No

8. If you've used a respirator, have you **ever had** any of the following problems? (If you've never used a respirator, check the following space and go to question 9:)

- a. Eye irritation: Yes/No
- b. Skin allergies or rashes: Yes/No
- c. Anxiety: Yes/No
- d. General weakness or fatigue: Yes/No
- e. Any other problem that interferes with your use of a respirator: Yes/No

9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes/No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you **ever lost** vision in either eye (temporarily or permanently): Yes/No

11. Do you **currently** have any of the following vision problems?

- a. Wear contact lenses: Yes/No
- b. Wear glasses: Yes/No
- c. Color blind: Yes/No
- e. Any other eye or vision problem: Yes/No

Midland Engineering Co., Inc. Safety Management System			Doc No:	RESP
			Initial Issue Date	12/14/15
			Revision Date:	Initial Version
Chapter 31-Respiratory Protection			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 22 of 22

12. Have you **ever had** an injury to your ears, including a broken ear drum: Yes/No

13. Do you **currently** have any of the following hearing problems?

- a. Difficulty hearing: Yes/No
- b. Wear a hearing aid: Yes/No
- c. Any other hearing or ear problem: Yes/No

14. Have you **ever had** a back injury: Yes/No

15. Do you **currently** have any of the following musculoskeletal problems?

- a. Weakness in any of your arms, hands, legs, or feet: Yes/No
- b. Back pain: Yes/No
- c. Difficulty fully moving your arms and legs: Yes/No
- d. Pain or stiffness when you lean forward or backward at the waist: Yes/No
- e. Difficulty fully moving your head up or down: Yes/No
- f. Difficulty fully moving your head side to side: Yes/No
- g. Difficulty bending at your knees: Yes/No
- h. Difficulty squatting to the ground: Yes/No
- i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes/No
- j. Any other muscle or skeletal problem that interferes with using a respirator: Yes/No