



PLAINTIFF'S EXHIBIT

FD-1081

Inter Office

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Personnel and Organization Staff

June 10, 1980

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Subject: Employee Respirator Training Program

For sometime now there has been interest in developing a respirator training program for employees to meet OSHA requirements for use throughout the Company. The attached document represents the progress made to date on this project, and is only a suggested working draft to serve as the basis for discussion of this activity.

On Friday, June 20 at 9:00 a.m. in the Conference Room, Suite 900, Parklane Towers West, there will be a meeting to determine the future direction of this program. At that time the following items will be discussed:

- . Advisability of project
- . Costs: videotape or slide-tape cassette
- . Sharing of costs between corporate budget and divisions
- . Training issues
 - status of current training activities
 - supervisor training needs
 - training materials needed

I hope it will be possible for you to attend this meeting. If you have any questions or comments, please call me at 32-27492.

Beverly G. Ware

Attachment

8004 1201

SCF-FORD-2023

Proposed Content For Employee Respirator Training
(Air Purifying Respirators)

Slide:
Respirator
Training
Program

Introduction:

The program you are about to see will explain the Company respirator program that has been developed to meet OSHA regulations and previously established guidelines. The Company as well as employees have responsibilities to assure that respirators are used properly.

Wearing of
respirators
in several
settings

Purpose of Respirators:

A respirator is an enclosure that covers the nose and mouth or the entire face or head. Respirators are devices designed to provide you the wearer with protection against inhalation of airborne material or contaminants in the atmosphere which may be harmful to your health. Protection is achieved by removing the contaminant from the air before it is inhaled or by mechanically supplying contaminant-free air to the respirator.

Illustrate
the types
of conditions

A contaminant may be a gas, such as chlorine; a vapor such as solvent vapor; a dust such as silica; a fume such as welding fume; smoke such as oil smoke; fibers such as asbestos; oil mist or paint overspray. Sometimes respirators are provided because of nuisance odors.

Appropriate
illustration
(Slide:
Respirator use)

Respirator use:

Appropriate
example
(spillage)

Respirators are always used in emergency situations such as spills or fires. They are often employed as an interim measure until such time as engineering controls and work practices can be implemented to limit exposure to an existing hazard that is present.

Appropriate
example
(maintenance)

They are also worn when maintenance or repairs are being undertaken. Under these conditions the possibility of an accident happening does exist. The wearing of protective equipment prevents exposure to potentially harmful substances.

Appropriate
example
(paint sprayer)

Respirators may be required under certain conditions of work or in specific processes where engineering controls are not feasible.

Show respirator
illustrate 2
types

Respirator Types:

There are two general types of respirators, air purifying and atmosphere-supplying, also known as air supplied.

Slide for
emphasis

Air purifying respirators do not supply oxygen. They are specific for certain contaminants and for certain concentrations and therefore must not be used in an atmosphere in which there is a lack of oxygen. When an oxygen deficiency is suspected, existing procedures for testing the amount of oxygen in the

atmosphere and the selection of appropriate respiratory equipment should be carried out. Air supplied respirators are often used under this condition.

Slides/
Respirators being
worn

show types

Air supplied respirators provide air from a source independent of the surrounding atmosphere. One type is a self-contained breathing apparatus. Others are of an airline design featuring compressed air delivered through a high pressure hose or hand or motor operated air blower.

show survey	<u>Respirator Selection</u> The use and selection of a specific respirator is based on the information gained from a comprehensive industrial hygiene survey. This survey may include sampling of the atmosphere and monitoring of the exposure or estimating risks to health during an emergency (i.e., a fire). From this survey, the risk to employee health is determined in order to assure the selection of the proper respirator. Recommendations for respirator use are given to the plant based on survey results and consistent with Federal and State occupational health regulations. Each plant selects the approved respirators from a list provided by Industrial Hygiene. All respirators used in the Company are approved by the National Institute for Occupational Safety and Health (NIOSH) and by the Mine Safety and Health Administration (MSHA).
show types	There are two main functions of air-purifying respirators; particulate-removing and vapor and gas-removing. It is possible to have a respirator in which the two functions are combined.
show breathing	Most air-purifying respirators are negative pressure respirators, that means air is not supplied. As the wearer inhales, a partial vacuum is created within the respirator which causes air to pass through the filters to fill this void. Using this type of respirator requires effort to overcome the resistance of the filters. Some air purifying respirators use a blower to pass contaminated air through an element to remove contaminants and then to supply the purified air to a respiratory inlet which may be a facepiece, helmet or hood. The advantage of this equipment is that there is a constant air flow. There are two basic purposes for air purification:
show respiratory inlet	
show filters	1. Particulate-removal - these respirators prevent dust, smoke, fume, fibers and mists from entering the facepiece by trapping them into the filter.
show cartridges	2. Vapor and gas-removal - these respirators use chemical cartridges or canisters to trap gas and vapor.
show variety	<u>Particulate-Removing Respirators</u> There is a wide variety of these respirators. All of them use a filter as the element to remove airborne particles, such as dust, fibers, smoke, fume, mists, or aerosol mixtures.
show masks	One type of respirator used in several Company locations is the disposable mask which is used for removal of dusts and fibers.

Show
Example

Another type of particulate-removing respirator is one with a disposable filter. This kind of respirator must be selected to match the particular situation in which the respirator is to be used.

Show
Variety

Vapor and gas-removing Respirators
These respirators use a cartridge or canister as the element to trap vapors or gases. They contain an absorbing material which has an affinity for the contaminant, thus collecting the contaminant as it passes through the cartridge or canister. Activated charcoal is commonly used. Canister respirators may be chin, front, or back mounted.

Show
Chart

Since vapor and gas-removing cartridges and canisters are designed for protection against specific problems, a color code for the various types has been established. The color identifies the contaminant the cartridge canister is designed to protect against. Knowing the colors and always reading the label are important measures for correct respirator use.

Know your
color
Read your
label

	<u>Atmospheric contaminants to be protected against</u>	<u>Color assigned</u>
Show Color Canisters, Cartridge	Acid gases.....	White
	Chlorine gas.....	White with $\frac{1}{2}$ inch yellow strip completely around the canister near the bottom
	Organic vapors.....	Black
	Ammonia gas.....	Green
	Acid gases & organic vapors	Yellow
	Particulates (dusts, fumes, mists, fogs, or smokes) in combination with any of the above gases or vapors.....	Canister color for contaminant, as designated above with $\frac{1}{2}$ inch gray stripe completely around the canister near the top.
	All of the above atmospheric contaminants.....	Red with $\frac{1}{2}$ inch gray stripe com- pletely around the canister near top.

Demonstrate
Situation

Vapor and gas-removing cartridge or canister respirators have limited capacities. They should not be used for dusts, fibers or mists. If the wearer detects an odor or taste, or feels eye or throat irritation, he must leave the area immediately and change the cartridge or canister.

Combination Respirators

There are respirators that will protect against particulates and vapors and gases at the same time. These look like the cartridge or canister type alone. A typical example is the cartridge worn by paint sprayers. Protection is achieved by the independent components of the respirator, one for gas, and one for particulates, together. The color code for cartridges and canisters applies to these respirators.

Show
Combination
Types
Paint Sprayer

Remember, these respirators may not be used in atmospheres where there is a lack of oxygen. Full-face air purifying respirators are available and used when indicated. Other protection such as safety goggles, helmets, gloves and overalls may be required.

Full Face Piece
Fully Equipped
Employee

Fitting

Show
Assignment

Employees who must use a respirator usually will be assigned their own respirator. Your plant physician will approve the wearing of a respirator in all cases.

Show
Conditions

Air-purifying respirators are tightly fitted to the face to assure a good seal to the face. With this type of respirator, where a pressure difference exists inside the facepiece, a tight fit is essential to assure that contaminants don't come in through the cracks. A poor fit to the skin can be caused by:

- . frames on glasses
- . moustaches
- . beards
- . side burns
- . individual facial structure

There are two kinds of tests that are required and necessary for proper respirator fit:

- . qualitative fit
- . quantitative fit

Qualitative face fit tests

Usually, these tests are fast and they rely on the wearer's ability to judge the fit.

Demonstration

Qualitative fit tests include two basic approaches. The first, a positive-negative pressure test, should be used every time the respirator is put on. This test involves covering the exhalation valve with the hand and blowing into the respirator. The respirator should develop a pressure inside the mask which only slowly leaks out if the fit is proper. Next, the cartridge or cartridges are covered and the wearer breathes in. A vacuum should be created inside the mask if the fit is proper and the respirator should collapse around the face.

Show
Demonstration

The second approach involves the use of banana oil. When the respirator is properly worn, the wearer will not be able to smell the banana oil.

There are specific procedures for these and other qualitative tests available through Industrial Hygiene Services.

Show
Example

These approaches cannot be used with single use, disposable respirators.

Show Test

Quantitative fit tests

All quantitative tests involve placing the wearer in an atmosphere containing an easily monitored gas, vapor or aerosol and taking samples of air inside the respirator to compare the outside contaminant concentration with that in the respirator.

This kind of test will be conducted in those cases where OSHA Standards require its use, or occupational or employee exposure warrants such testing.

Employees who have not worn respirators in the past, or who have a change in respirator used, will be required to have a training session, fitting and time to get accustomed to the wearing of the respirator prior to use in the contaminated area.

Respirator Care

slide:
Respirator Care
cleaning
inspection
storage

Respirators need care. Wearing a defective device does not give you the protection you need. Respirator maintenance is essential to ensure the proper functioning of your equipment. An adequate maintenance program consists of correct cleaning, daily inspection, and safe storage.

slide: cleaning

For respirators that are assigned, cleaning must be done daily at the end of the shift. The general procedure for cleaning is to remove the cartridge canister and wash the facepiece in mild soapy water and rinse thoroughly. Air dry in a clean noncontaminated place.

slide: inspection

The most important act you perform in maintaining a functioning respirator is the daily inspection. You should inspect it carefully every day by checking for...

show checking

- . tears or rips in the facepiece
- . broken or missing straps
- . properly functioning exhalation valve
(exhalation seats properly)
- . no missing parts
- . correct cartridge, canister or filter
- . any deterioration of respirator, such as worn parts, cracks, damage

show giving
to repair

Take any respirator needing repair to the place or person that has been assigned to repair this equipment in your area.

slide: storage

show storing

Your respirator must be stored under conditions which will protect it from contamination. Be sure that it is placed in a closed container such as a plastic bag to keep it clean. It should be kept away from direct sunlight or heat and be stored out of the contaminated area.

show disposable
respirator

In the case of disposable respirators, you will be instructed on how long these can be worn. They must be thrown away at the end of this time.

show procedure
for malfunction

If there should be a malfunction of your respirator due to clogging, or if breathing becomes difficult, or you smell an odor, leave the contaminated area to inspect your facepiece for the problem, and arrange for repair and a replacement.

Show
Emergency
Procedure

In cases of an emergency such as a spill or leak which releases a large amount of contaminant, leave the area immediately. You may return to the area wearing a respirator appropriate for emergency use to effect emergency procedures necessary, such as shutdowns or spill cleanups.

Slide of
Things to
Remember

Your respirator can help you only if you use it correctly and maintain it properly. In order to do this, you must:

- . USE YOUR RESPIRATOR ONLY FOR THE CONDITION IT WAS DESIGNED
- . CHECK THE FIT EACH TIME YOU WEAR YOUR RESPIRATOR
- . DO NOT WEAR A DAMAGED RESPIRATOR
- . DO NOT ATTEMPT TO REPAIR A RESPIRATOR
- . CLEAN RESPIRATOR DAILY
- . THOROUGHLY INSPECT RESPIRATOR DAILY
- . KEEP YOUR RESPIRATOR IN A PROTECTIVE CONTAINER
- . CHANGE FILTERS AND CARTRIDGES WHEN INDICATED