

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
Texas City, Texas

S U B J E C T : R E S P I R A T O R Y P R O T E C T I O N P R O G R A M

POLICY: To establish guidelines to protect employees from exposure to atmospheric contamination by utilizing facilities and equipment that have all feasible safeguards incorporated into their design. When effective engineering controls are not feasible, or while they are being initiated, protection is attained by the use of personal respiratory protective equipment (respirators).

PROCEDURE HIGHLIGHTS:

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

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

Respirators shall be regularly cleaned, and sterilized.

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

Respirators used routinely shall be inspected during cleaning. Worn or deteriorated parts shall be replaced.

Respirators for emergency use, such as self-contained devices, shall be thoroughly inspected at least once a month and/or after each use.

Appropriate surveillance of work conditions and records indicating the degree of employee exposure or stress shall be maintained.

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

Persons who may be required to use respirators in their work will be reviewed annually to determine if they are physically able to use the equipment.

Respiratory equipment shall be selected based on ANSI Z-88.2, 1969 Guidelines and bear NIOSH/MESA/BM approval.

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UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
Texas City, Texas

SUBJECT: RESPIRATORY PROTECTION PROGRAM

I. GENERAL:

- A. Recordkeeping covering visual inspections, use, condition and needed maintenance of respiratory equipment shall be the responsibility of the Department Head of the department to which it is assigned.
- B. Portable air line and compressor supplied respiratory equipment shall be the responsibility of the Department Head of the area to which it is assigned.
- C. The Safety Department is responsible for securing, supplying, cleaning, sanitizing, and making necessary repairs to all personnel safety equipment.
- D. An annual report will be submitted to the Safety Department in the first quarter of each year covering the condition of the equipment, record of inspections, numbers, and types of safety equipment in each department or area by the Department Head responsible for the department or the area. Forms will be provided by the Safety Department.
- E. Records referred to in this procedure will be retained for a period of one year or until replaced.
- F. This procedure is basic for the plant and is to be used as a guide in establishing unit procedures.
- G. All employees, who in the normal performance of their work may be required to use respiratory equipment, will be certified annually by the Medical Department as to their physical ability to use respiratory equipment. Their knowledge of how to use the equipment as it pertains to the work performed must be demonstrated to the immediate supervisor's satisfaction. Records must be kept. Forms to accomplish the above will be provided by the Safety Department.

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UNION CARBIDE CORP.
CHEMICALS AND PETROLEUM
DIVISION

S U B J E C T : RESPIRATORY PROTECTION PROGRAM

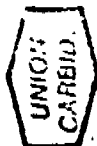
- H. Employees who may be required to use emergency respiratory equipment will receive smoke house training every two years. It shall be the responsibility of the immediate supervisor to see that this is accomplished. Records must be kept.
- I. Respiratory equipment which requires servicing in the shop will be returned to the Safety Department immediately after its use.
- J. The Safety Department must be notified to service that equipment which is assigned to a specific location immediately after its use.

II. TYPES OF RESPIRATORY EQUIPMENT

All respiratory equipment shall be selected on the basis of hazards and conditions to which employees are exposed and will conform to ANSI Z-88.2, 1969 Guidelines and shall have NIOSH/MESA/BM approval. The Safety Director shall be consulted to specify which type respiratory protection will be used.

- A. Self Contained Breathing Apparatus (SCBA) provides maximum protection in oxygen deficient and toxic gas atmospheres and is to be used for emergency/training purposes only
 - 1. MSA and Scott 30-Minute Demand or Pressure Demand and MSA 8-Minute Demand Units (Air):
 - a. These units are permanently located in designated places throughout the plant and are to be used by unit personnel during emergencies.
 - b. The same type equipment is kept on the fire trucks and the emergency truck for use by the fire and rescue squads.

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- c. The employee's immediate supervisor is responsible for the instruction and training in the proper use of the equipment and keeping necessary records.
 - d. The employee is responsible for reasonable care of the equipment and reporting of any malfunctions and repairs needed to their supervisor
2. MSA Combination Demand Breathing Apparatus (6-Minute Air)
- a. This equipment is to be used in combination with air line equipment.
 - b. It is intended to be used as an auxiliary air supply to escape to fresh air in the event the primary air supply is interrupted.
 - c. When the equipment is assigned to a specific department, the immediate supervisor of the employee who uses this unit is responsible for the instruction and training of the employee.
 - d. This equipment will be available for check out from the Safety & Fire Protection Department and will be returned for servicing after each use. The Safety Department will provide initial instructions to supervisors as to its use and limitation. Records of this training must be kept.
3. MSA Pressure Demand Air Work Mask (10-Minute Air)
- a. This unit is also to be used in combination with air line equipment as an emergency air supply.

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UNION CARBIDE CORPORATION
CHEMICAL AND PETROLEUM
TOWN OF PORTLAND, OREGON

SUBJECT: RESPIRATORY PROTECTION PROGRAM

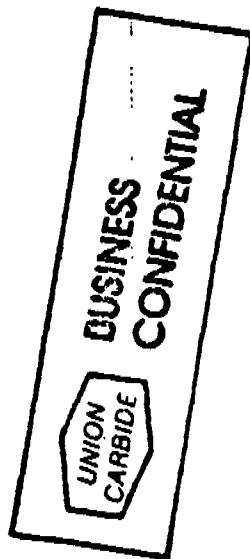
- b. The pressure demand feature of the unit provides positive pressure on the face piece at all times.
- c. When the equipment is assigned to a specific department, the immediate supervisor is responsible for the instruction and training. Records of this training must be kept.
- d. The Safety Department will provide initial instruction to supervisors of this equipment.

4. MSA HHH Inhalator

- a. This equipment is in limited service in the plant and is the only units which have medical oxygen available for administering to individuals in the field.
- b. These units are located at Bldgs. 57, 79, 96, 103, 139, and 145.
- c. Operating personnel at these locations are to be properly trained annually to use the equipment by the immediate supervisor. Records of this training must be kept.
- d. The Safety Department is responsible for the maintenance and repair of this equipment.

B. Air Purifying Apparatus - Caution - This equipment is not to be used in oxygen deficient atmospheres or where high concentration of gases might be suspected.

- 1. Chemical cartridge type masks are available at designated locations throughout the plant. Various type cartridges are available from the Safety Department and the storeroom.



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SUBJECT: RESPIRATORY PROTECTION PROGRAM

2. Both half and full face type masks are available as determined by protection required.
3. Most chemical cartridges are designed for low concentration ranges of 1% to 3% organic vapors, acid gases, dust and mists, and are effective from 20 to 45 minutes.
4. Selection of air purifying respirators for each use must conform to NIOSH/MESA/BM approved schedules.
5. The immediate supervisor is responsible for personnel training, fitting, and use of canister type masks.
6. Short duration canisters are to be discarded and replaced after the seal has been removed even though it was only used a few minutes.
7. The large four-hour (Vinyl Chloride) canister may be used for its service life or to the end of the shift, whichever occurs first.

C. Air Line Equipment - Portable buggies or permanently mounted fresh air systems.

1. Equipment for these systems will be supplied by the Safety & Fire Protection Department.
2. Maintenance and care of the buggies is the responsibility of the maintenance areas where they are located.
3. Respiratory equipment necessary on the portable buggy includes a 300 cu. ft. breathing air cylinder, low pressure alarm device, pressure regulator, air line hose manifold, air line hose, single stage regulator, and a full face piece.

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CHEMICALS AND PETROLEUM
SAFETY DEPARTMENT

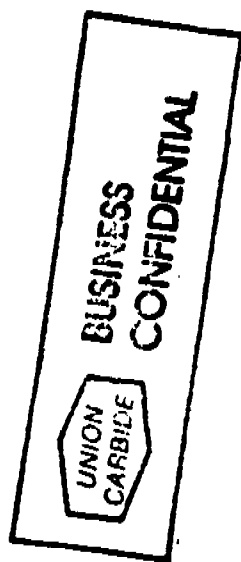
SUBJECT: RESPIRATORY PROTECTION PROGRAM

4. Permanently mounted systems will include all the above items connected to a bank of 300 cu. ft. cylinders. Maintenance and care of these systems is the responsibility of the Department Head of the Unit or Area where it is located.
5. It is the responsibility of the immediate supervisor to insure that the employee is familiar with and understands the use of the equipment.
6. It is the user's responsibility to inspect equipment before using, take care of, report discrepancies to their supervisor, and return used equipment to the Safety Department immediately after use for cleaning, sanitizing, and recycling.

III. INSPECTION OF EQUIPMENT

A. Self-Contained Breathing Air (SCBA)

1. Unit is in its designated place.
2. Hose and face piece has no damage or deterioration.
3. Alarm bell function (only 30 minute MSA & Scott self contained air units are equipped).
4. Cylinder pressure minimum of 1800 psi.
5. Unit and container kept clean and in "ready to use condition."
6. Minimum inspection is monthly and after each use. Record card is to be kept with the piece of equipment.



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B. Portable Buggies and Permanently Mounted Systems

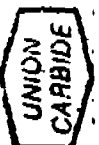
1. Prior to using equipment, the user shall inspect the face piece for damage and deterioration, the breathing tube for holes, the air hose for breaks or cuts, the bottle and belt regulators and the low pressure air supply alarm are operating properly, and an adequate supply of air is available.
2. A monthly recorded inspection shall be made by the Operating Department or Maintenance area to which it is assigned.

- C. Hydrostatic Testing of cylinders will be accomplished each five years and is the responsibility of the Safety and Fire Protection Department.**

IV. EQUIPMENT USERS

- A. All employees who may be required to use emergency equipment (SCBA) must demonstrate their ability to fit and adjust equipment, establish face seal, wear in normal air, and wear in a test atmosphere.**
- B. All employees who may be required to use respiratory equipment (air line) must demonstrate their ability to fit and adjust equipment, establish face seal, and wear in normal air.**
- C. Beards or long sideburns could be a means of preventing a seal between the wearer's skin and face mask of respiratory equipment. This safety equipment will only work properly when there is a positive seal. Therefore, beards**

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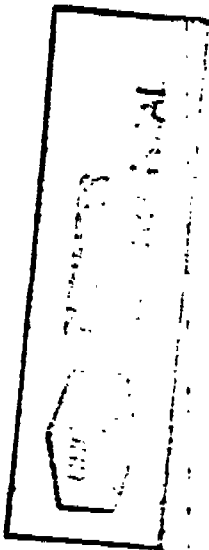
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UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
DOWNS CITY, TEXAS

SUBJECT: RESPIRATORY PROTECTION PROGRAM

or long sideburns that could interfere with the respirator sealing surface shall not be worn by an employee who in the course of performing his required duties, may, during an emergency, upset, or routine duties have to wear respiratory equipment.

- D. Respiratory equipment assigned to individuals shall be kept clean and sanitary by the individual to whom it is issued. Record of issuance shall be kept.
- E. Routinely used respiratory equipment not specifically assigned to an individual shall be cleaned and sanitized after each use by the Safety Department. Equipment will be thoroughly inspected. Worn and deteriorated parts will be replaced.
- F. All respiratory equipment will be stored in clean, convenient locations easily available for immediate use.



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