

APPENDIX G

STANDARD OPERATING PROCEDURES

Selection of the proper type of respirator is vital, but it is only part of the complete respirator program. Unless a standard operating procedure is set up, a correctly chosen respirator may be used incorrectly. The OSHA regulations 1910.134b require written standard operating procedures whenever respirators are used. Examples are given below.

STANDARD OPERATING PROCEDURES FOR USE OF RESPIRATORS IN THE MULLER AREA

The first respirator selection example in Chapter Six concerned a muller operator in a foundry. If we assume that this is a small foundry with only one operator, we can write a simple procedure as follows.

Respirator Selection

On the basis of the 5-mg/m³ dust concentration and a permissible exposure limit of 1.5 mg/cm of silica dust, we have chosen the brand X disposable respirator, approved for use in silica dust, to be worn whenever the muller is operated. Properly used, this respirator provides a protection factor of 5.

User Instructions in Training

The muller operator who wears this respirator is trained in its use when hired and yearly thereafter. During training, he is taught to wear the respirator and a fit test using talc dust is performed to see whether the respirator leaks. If it does leak, another brand of disposable respirator is obtained. After the fit test, the employee continues to wear the respirator during the rest of the instruction and training class. He is told that he may have a new respirator whenever he wants and that he must use a new one whenever breathing becomes difficult and at the start of each shift. He is also told that silica dust may be harmful to health some years after ex-

posure and that it is important that he use the respirators provided. It is further explained that it is impossible to install a ventilation system to take care of the dust problem in this area.

Respirator Sanitation Program

As the respirators are discarded after each day's use, there is no need for a sanitation program.

Respirator Use Surveillance

It is the foreman's responsibility to see that safety devices provided are used. He checks the muller operator's use of the respirator daily.

Work Area Surveillance

If operating conditions change, dust concentration in the muller area will be remeasured to ensure that the respiratory protection provided is still adequate.

STANDARD OPERATING PROCEDURES FOR USE OF SELF-CONTAINED BREATHING APPARATUS DURING DEGREASER PIT MAINTENANCE

In the fourth example in Chapter Six, maintenance personnel occasionally had to enter a degreaser pit while it was cool to clean it and perform necessary maintenance. The written operating procedure might be as follows.

Respirator Selection

Extremely high trichlor concentrations may be encountered during degreaser cleaning. The pit is to be ventilated, but use of pressure demand supplied-air respirators with escape packs is required.

39. API TOXICOLOGICAL REVIEWS, AMERICAN PETROLEUM INSTITUTE, NEW YORK.
40. GLEASON, M.N., GOSSELIN, R.E., HODGE, H.C., AND SMITH, R.P.,
BULLETIN OF SUPPLEMENTARY MATERIAL FOR CLINICAL TOXICOLOGY OF
COMMERCIAL PRODUCTS, UNIVERSITY OF ROCHESTER, 1969-1975.
41. MAY, J., ODOR THRESHOLDS OF SOLVENTS FOR ASSESSMENT OF SOLVENT
ODORS IN THE AIR, STAUB, VOL 26, 34-38 (SEPT, 1966) (ENGLISH TRANS.)
42. (SEE NELSON)
43. SUMMER, W., ODORS POLLUTION OF AIR, CRC PRESS, CLEVELAND, 1971.

User Instruction and Training

Maintenance men required to wear this equipment are trained in its use within 30 days of their employment. The training consists of wearing the equipment in fresh air and being taught how to regulate air flow and how to react in emergencies and if the main air supply fails. They are shown the alarm bell in the degreaser pit which rings if the air compressor fails. They are told that at that time they have 10 minutes air supply from their escape packs.

The equipment is used in a training exercise four times a year and is cleaned approximately twice a year. The exercise consists of entering the pit after it has been ventilated and inspecting the equipment in the bottom of it. Escape bottles of compressed air that have been opened are replaced through an arrangement with the distributor.

Cleaning, Maintenance, and Storage

After use, the respirators are cleaned by the maintenance staff using the manufacturer's sanitiz-

ing solutions. They are dried and stored in special cases in the maintenance department.

Respirator Air Supply

Air for normal use of these masks is supplied by an oilless portable compressor placed at the edge of the pit.

Respirator Use Surveillance

The Safety Director is responsible for seeing that training is carried out as specified and he must oversee the training.

Emergency Respirator Inspection

The respirators are inspected monthly for deterioration and to see that the escape bottles are fully charged. This is the Safety Director's responsibility.