

19—Personal Protective Equipment

first be blown from them by means of compressed air at not more than 10 to 20 psi of pressure, through a fixed nozzle directed towards an exhaust hood. The cleaners should wear dust-tight goggles. Dust filters should not be cleaned by brushing.

Then filters, screens, headbands, and cotton facelets should be removed. If the respirators are coated with paint or other foreign matter, they should be soaked for three hours in a cleaning solution of 1½ pounds of commercial alkaline base cleaner and 7 gal of water. Fresh paint can be wiped off with a clean rag moistened in alcohol. Thorough rinsing is always necessary before use.

Respirators having no visible accumulation of foreign matter should be scrubbed in warm, soapy water, rinsed, disinfected, then rinsed again and dried.

Knitted facelets should be washed in warm, soapy water, rinsed and dried before reuse. Dirty or oily elastic headbands should be washed in warm, soapy water and rinsed. The water should be warm to remove perspiration and hair oil from the elastic fabric.

Rubber parts should never be dried by direct application of heat or sunlight.

Employees should be instructed to wipe off oil, grease, and other harmful substances from headbands and other parts of the respirator as soon as they collect. They should be warned not to use solvents to clean plastic or rubber parts.

Most face and mouthpieces for respiratory protective devices are made from rubber or rubber-like compounds. Usually hand brushing or agitation in a washing machine, using detergent and warm water is sufficient to clean them.

Hypochlorite or quaternary ammonium compounds in the proper strength in aqueous solution can be used to disinfect the parts.

Ethylene oxide gas, handled under proper precautions, is sometimes used where large quantities of respirators must be disinfected.

All detergent should be rinsed from the device before disinfecting, except where combination detergent and quaternary ammonium compounds (that both clean and disinfect) are used.

After cleaning and disinfecting, the parts should be rinsed in clean water and dried quickly. It may also be desirable to rinse

parts treated with quaternary ammonium compounds since their disinfecting properties continue and, except for rare cases, it will not produce a skin irritation.

Hot water, steam, solvents, and ultraviolet light should not be used to clean and disinfect rubber parts because they have a deteriorating effect.

Petroleum jelly should not be used to prevent skin irritation from rubber facepieces, for it is harmful to rubber. Disinfection and the use of clean cotton facelets will eliminate the need for a salve.

Respirators should be turned in at the end of each shift to be cleaned and repaired if necessary. They should be disinfected at least once a week when retained by the same employees.

In some plants, maintenance service for respirators, as well as for other kinds of personal protective equipment, can be effectively provided by traveling service carts (Fig 19-39).

Where a number of respirators are in regular use, a central station is often set up for their care and maintenance, as well as for the care and maintenance of other items of personal protective equipment. Each employee is then provided with two respirators and either a locker or a hook at the central station.

Some plants have found that if two respirators are assigned to each man, equipment lasts more than twice as long. This plan is most desirable when cleaning cannot be done between shifts or before the next scheduled shift.

Under such a plan marked respirators are turned in daily or weekly, depending upon use, for cleaning, disinfection, inspection, and repair. The worker then uses the second respirator until the first can be serviced.

Another plan is to keep quantities of disinfected respirators on hand for groups. This plan works where individual needs vary, but in such a plan the user is not so easily charged with responsibility. If the same respirator is used by several persons, it is always well to clean and disinfect it after each use.

Respirators should be marked to indicate to whom they are assigned. The method of identification should be permanent enough so that the marking cannot be changed inadvertently or without effort.