

Personal Protective Equipment

TABLE 38-C
RESPIRATOR APPROVAL CLASSIFICATIONS UNDER BUREAU OF MINES SCHEDULES

<i>Schedule 21A</i>	<i>Schedule 21B</i>
1. Respirators for mechanically generated dusts, including pneumoconiosis-producing dusts such as silica dust, and toxic dusts not significantly more toxic than lead 2. Respirators for fumes of various metals not significantly more toxic than lead 3. Respirators for mists of materials which do not produce harmful gases or vapors, such as silica mist and chromic acid mist 4. Respirators for various combinations of above	1. Respirators for dusts having a TLV of not less than 0.1 mg/m³ or 2.5 mppcf 2. Respirators for metal fumes having a TLV not less than 0.1 mg/m³ 3. Respirators for mists having a TLV not less than 0.1 mg/m³ or 2.4 mppcf 4. Respirators for dusts, mists and fumes having a TLV less than 0.1 mg/m³ where the exposure concentration is no more than 10 times the TLV (Protection factor of 10) 5. (Same as 4) except limited to exposure concentrations up to 100 times the TLV (Protection factor of 100) 6. (Same as 4) except limited to exposure concentrations up to 1000 times the TLV (Protection factor of 1000) 7. Respirators for various combinations of above 8. Respirators that are combinations of mechanical filter and other types

should not be kept too near the ice machine or ammonia piping

Masks should be stored away from moisture, heat, and direct sunlight, and should be regularly inspected

It is recommended that a safety belt and lifeline be used whenever the wearer of a gas mask enters a confined irrespirable atmosphere. A second man should be stationed outside to tend the lifeline and to act in an emergency. He, too, should be provided with a gas mask, safety belt, and lifeline so that he can go to the assistance of his coworker.

Chemical cartridge respirators

Chemical cartridge respirators consist of a half-mask facepiece connected directly to one or two small containers of chemicals (Fig 38-24). Chemicals used are similar to those

found in gas masks, but cartridge respirators are for use only in nonemergency situations, that is, for atmospheres which are harmful only after prolonged or repeated exposures.

At the present time, Bureau of Mines approval has been given *only* for type B (organic vapor) and type BE (dusts, fumes, and mists in combination with organic vapors). These types are approved for concentrations not in excess of 1000 parts of organic vapor per one million parts of air.

Particulate filter respirators

A particulate (mechanical) filter respirator can be designed to give satisfactory protection against any kind of particle (Fig 38-25). The major items to be considered are the resistance to breathing offered by the filtering element, the adaptation of the facepiece to faces of