Respirator Users Notice

NIOSH Toll-free Number: 1-800-356-4674
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Caution: Some Respirators May Not Protect Against Small Particles

On July 10, 1995, the respirator certification standards used by the National Institute for Occupational Safety and Health (NIOSH) were upgraded from those of Part 11 (Title 30 of the Code of Federal Regulations, Part 11) to those of Part 84 (Title 42 of the Code of Federal Regulations, Part 84).

Respirators certified under Part 11 can be sold and shipped as NIOSH-certified until July 10, 1998. The purpose of this Notice is to advise users of a recommended limitation on the use of DM and DFM respirators certified under Part 11. **No such limitation is recommended for new respirators certified under Part 84.**

NIOSH believes that DM and DFM respirators certified under Part 11 do not guarantee protection against very small particles. NIOSH makes the following recommendations concerning respirators used against particulates:

- Use DM and DFM respirators only when the particle size is large (that is, when the mass median aerodynamic diameter is known to be 2 μm or greater).

- When the particle size is unknown or is smaller than 2 μm, use high efficiency (HEPA) respirators or any of the new respirators certified under Part 84. 

It is not possible to determine particulate size or respirator needs visually. Measuring particulate size is difficult, requires sophisticated instruments, and is typically done by trained industrial hygienists. Such measurements are not necessary with either HEPA respirators or with the new Part 84 particulate respirators, because they provide the maximum protection regardless of size.

Respirator Identification

The filters on all Part 11 particulate respirators contain certification numbers of the form TC-21C-XXX or TC-23C-XXX. Users can identify the three types of Part 11 particulate respirators as follows:

- DM respirators are labeled as "Permissible respirator for dusts and mists or approved for respiratory protection against dusts and mists having a time-weighted average not less than 0.05 milligram per cubic meter or 2 million particles per cubic foot."
- DFM respirators are labeled as "Permissible respirator for dust, fumes, and mists or approved for respiratory protection against dusts, fumes, and mists having a time-weighted average not less than 0.05 milligram per cubic meter or dusts and mists having a time-weighted average not less than 2 million particles per cubic foot."

- High efficiency respirators (sometimes called HEPA respirators) are labeled as "Permissible respirator for dusts, fumes, mists, and radionuclides or approved for respiratory protection against dusts, fumes, and mists having a time-weighted average less than 0.05 milligram per cubic meter and radionuclides." The filter (or in a disposable respirator, the exhalation valve) in a HEPA respirator is always color-coded magenta (reddish-purple).

Part 84 particulate respirators will have the notation N100, N99, N95, R100, R99, R95, P100, P99, or P95 on the filter label. The certification number TC-84A-XXX will appear on the packaging of Part 84 respirators.

Direct questions regarding respirator protection programs to your respirator program administrator, health and safety representative, or to NIOSH at 1-800-356-4674.

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In this document:

I think care should be taken not to have the reader mislead. It is true inaccurate concerning particle size, however the restriction concerning N (Nonoil) R (resistant to oil) or R (oilproof) must also be stated. Otherwise one could state this document said it was ok to use N or R series when the particle size is unknown & protection would be provided.

John Alexander