Respirator Committee
Industrial Hygiene Committee

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MEDICAL DIVISION

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To: Respirator Coordinators

From: D. T. Lefferts, Building 1094

DISPOSABLE RESPIRATORS

Since returning to Chambers Works, I have reviewed many respirator approval requests. Many have been written, but a few have been handled by telephone. More often than not, the request centered on the 3M No. 8710 disposable respirator. I believe some general clarification is in order.

The 3M Company markets several NIOSH-approved disposable respirators as well as several respirators not having NIOSH-approval. The unapproved (not disapproved) respirators are for use for the comfort of the wearer.

These unapproved respirators are for such applications as:

- Protection from annoyance from grass seeds, pollen, soap powder, blood, bacteria, hair, wood slivers, etc.
- Protection from annoyance from foul vapors and gases encountered by morticians, stockyard workers, sewer and sanitation workers, etc.
- Protection from annoyance from "nuisance" or "inert" particulates at less than exposure limit concentrations.

The NIOSH-approved No. 8710 respirator is approved for fiberous particulates and for particulates which cause pneumoconiosis and for nuisance particulates. Some materials which are in these approval categories are:

- Silica
- Silicates (Talc, Kaolin, Bentonite, Diatomite, Tripoli, Fuller's Earth, Mica, Cement)
- Coal
- Graphite
- Asbestos
- Sucrose

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- Starch
- Titanium Dioxide
- Aluminum Oxide

The 3M No. 8710 is not approved for toxic materials, carcinogens or irritants.

For most dry particulates which do not fall in the approval for the No. 8710, the 3M No. 9900 can be used. The No. 9900 has approval for toxic dusts which have exposure limits of not less than 0.05 mg/m3.

In general, dusts which have not been judged to have the sole effect of causing pneumoconiosis are the prime challenges of the 3M No. 9900. Of course, the No. 9900 can be used for all applications of the No. 8710 as well.

If protection from mists is required, the 3M No. 9910 is the approved disposable respirator.

Neither the No. 8710, No. 9900 nor No. 9910 is approved for gases, vapors or fumes. This means, mists with significant vapor pressures (other than water) are not applicable. Examples of approved mists other than aqueous solutions are glycerine and polyglycols.

I am continuing to review the usage of disposable respirators as well as the developing data on their applicability and will keep you up to date on these.

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