PLAINTIFF'S EXHIBIT

UC-P-32

RESPIRATORY PROTECTION

UNION CARBIDE

INTERNAL CORRESPONDENCE

UNION CARBIDE CORPORATION OLD RIDGEBURY ROAD, DANBURY, CT 06817

SAFETY DEPARTMENT RECEIVED JAN 14 1982 BROWNSVILLE, TEXAS

To (Name) Division Location Area: SEE ATTACHED DISTRIBUTION

Date: December 24, 1981

Originating Dept.: HS&EA

Area: Section P-2

Copy to:
E. G. Brown
W. S. Everett
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P. W. McDaniel
R. D. Ondocsin
L. W. Youngblood

Subject:

1. ~~Tom Tiffany~~
2. ~~Bill Brown~~
3. Sean

The attached has come to my attention and it is being forwarded to you for your information and to use as you need it.

The copy is poor but it is the only copy available.

R W Cope/vrd

R. W. Cope

RWC/vrd
Attachment

NORTON COMPANY SAFETY PRODUCTS DIVISION
2000 PLAINFIELD PIKE CRANSTON RI 02920
PHONE (401) 943-4400 TELEX 927588

September 21, 1981

Mr. Randy Geiger
W.R. Grace & Company
P.O. Box 609
Libby, Montana 59923

Dear Mr. Geiger:

Pursuant to our telephone conversation of this afternoon, I am sending to you a copy of the NIOSH letter that prompted the position taken by Norton Company regarding the use of negative pressure respirators in atmospheres containing asbestos.

Also attached is a copy of the letter intended for end users, such as yourself, outlining the rationale for the position taken by Norton Company regarding the use of negative pressure respirators in asbestos containing atmospheres.

Finally, find attached the correction notice for the #7170 package label that we discussed. This notice will appear in each package until package label #40-700208 Rev. D is placed into use.

If you have need of further explanation, please contact me at your convenience.

Sincerely,

Thomas B. Pickle
Product Manager

Tm
DWRieber
JHBeckstead

DE 007710

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE

August 25, 1980

NOTICE TO ALL RESPIRATOR MANUFACTURERS

The purpose of the this letter is to express the concerns of the National Institute for Occupational Safety and Health (NIOSH) regarding the use of air-purifying respirators against asbestos and other carcinogenic substances and to announce a course of action to address these concerns.

First, the present requirements of 30 CFR, Part 11 preclude MSHA/NIOSH from voiding approval of dust, fume, and mist respirators for use against asbestos and other carcinogenic substances without following appropriate administrative procedures. Section 11.130(f) of Subpart K mentions respirators with replaceable filters, designed as respiratory protection against asbestos-containing dusts and mists. Section 11.130(h) mentions single-use dust respirators designed as respiratory protection against pneumoconiosis and fibrosis-producing dusts, or dusts and mists, including but not limited to aluminum, asbestos, coal, flour, iron ore, and free silica.

However, we are deeply concerned about the use of dust, fume, and mist respirators, and other air-purifying respirators, against carcinogenic substances. Our concerns are based on two major issues: 1) the ability of the filter media to effectively remove the carcinogenic substance during the entire period of use, and 2) the questionable face fit of at least some dust, fume, and mist respirators, particularly the single-use type. Excessive leakage of a substance such as asbestos into the respirator due to either ineffective filtration or leakage around a poor seal is unacceptable and presents a potentially serious hazard to the wearer. The possibility of the development of lung cancer or mesothelioma, in the case of asbestos exposure, cannot be ignored when both filtration efficiency and adequate face seal are questionable.

On the issue of asbestos, the Institute wishes to state that although asbestos can produce fibrosis, this effect pales in significance in comparison to the known human and animal carcinogenicity of this fibrous material. It is not our position that single-use dust respirators will provide adequate protection against the cancer causing potential of asbestos. In light of the present knowledge concerning the carcinogenicity of asbestos, the listing of asbestos as an example of a "fibrosis-producing dust" in Section 11.130(h) can only be viewed as misleading. In the document entitled "Workplace Exposure to Asbestos: Review and Recommendations," the Institute concluded that "there is no asbestos exposure level below which clinical effects do not occur; significant disease can occur following very short (1 day to three months) exposure periods; worker exposures to asbestos must be controlled to the maximum extent possible; and human occupational exposures to all commercial asbestos fiber types have been associated with high rates of lung cancer and mesothelioma."

The above concerns, focused largely on asbestos, also apply to other carcinogenic substances referenced in 30 CFR, Part 11. Sections 11.130(a)(1) and 11.130(b) refer to dust, fume, and mist respirators, either with replaceable or reusable filters, designed as respiratory protection against dusts such as arsenic, cadmium, and chromium, all of which are suspected human carcinogens. Section 11.130(d) refers to respirators, with replaceable filters, designed as respiratory protection against dust, fumes, and mists of beryllium and radionuclides, which can produce cancer. Based on the facts that the air-purifying components of these devices are tested not against the carcinogens themselves but rather against other materials (i.e., do the filters effectively remove the carcinogenic agent during the entire period of recommended use?) and that the face seals of many of these devices are marginal or inadequate, we are concerned about their use against carcinogenic substances. Respirators with low protection factors may not provide adequate protection against carcinogens.

Accordingly, NIOSH intends to undertake a study of the use of air-purifying respirators against asbestos and other carcinogenic substances in an effort to resolve our concerns. In order to effectively accomplish this goal, it is essential that the respirator manufacturers and others engaged in respirator research provide NIOSH with all relevant data in their possession. We herewith request: 1) all data relating to the efficiency of your devices in removing contaminants, particularly any data involving actual testing against carcinogenic agents; and 2) any data pertaining to calculation of protection factors for your devices. In essence, because of the potential health consequences the Institute believes that the approval of air-purifying respirators for use against asbestos and other carcinogens should be based on their demonstrated effectiveness and not on a policy adopted when the carcinogenicity of certain chemicals and other substances was unrecognized.

Your assistance in this very important assessment is vital. If you have any questions please write or telephone (301) 443-3610.

Sincerely yours,

Jon R. May

Jon R. May, Ph.D.
Special Assistant to the Director
NIOSH, for Testing and Certification

NORTON COMPANY SAFETY PRODUCTS DIVISION
2000 PLAINFIELD PIKE CRANSTON RI 02920
PHONE (401) 943-4400 TELEX 927038

MAY 22, 1981

TO: Users Of Air-Purifying Respirators In Asbestos Environments

FROM: John C. Gillespie, Product Manager

SUBJECT: Use of Non-Powered Air-Purifying Respirators in Asbestos Environments

During the past twenty years, few substances have generated as much controversy as asbestos. It is known now that inhalation of asbestos fibers may result in potentially fatal fibrosis diseases such as pneumoconiosis and asbestosis, or potentially fatal cancers such as mesothelioma and lung cancer.

Medical evidence indicates that the fibrosis-type diseases result from inhalation of significant quantities of asbestos fibers. More recent evidence indicates that mesothelioma and lung cancer may result from inhalation of only minute quantities of asbestos fibers. It appears also that smoking increases these risks substantially.

Some experts feel that there is no level below which exposure to asbestos would be safe. Considering this, in the latter part of 1980 NIOSH raised questions about the use of air-purifying respirators by workers in asbestos environments. As you know, NIOSH has approved a wide variety of air-purifying respirators for protection against asbestos fibers; and, to limit exposure to a maximum of two fibers per cubic centimeter, OSHA permits use of approved non-powered air-purifying respirators when the eight-hour time weighted average (TWA) airborne concentration of asbestos fiber is less than 20 fibers per cubic centimeter.

However, because the NIOSH test procedures utilize silica dust, silica mist, and test media other than asbestos fibers, NIOSH is questioning whether its approval tests effectively predict the performance of respirators for protection against asbestos. Furthermore, the NIOSH tests only deal with the performance of the filtering material and do not take into account the effects of leakage due to poor fit.

Although studies are underway to resolve these questions, Norton feels that respirator users and their employers should be aware that no non-powered air-purifying respirator totally eliminates asbestos fibers from the breathing zone, so that even with the best respirators, some asbestos fibers will be inhaled. To obtain the greatest degree of protection where the TWA concentration is less than 20 fibers per cubic centimeter, Norton recommends the use of an elastomeric half-mask or full-facepiece respirator with high-efficiency filters, such as the Norton 7580 or 7680 respirators.

properly fitted as required by OSHA and specified in the ANSI Z88.2-1980 Standard.

It must be noted that, while questioning the effectiveness of air-purifying respirators for protection against asbestos, NIOSH has not revoked any of its respirator approvals, nor has OSHA sought to modify its standards for exposure or respirator use. Therefore, since the Norton 7270 and 7406L respirators, and 7500-6 filters meet or exceed NIOSH approval and performance requirements for protection against asbestos, their use for that purpose complies with OSHA's requirements. However, Norton believes that these respirators do not provide the best protection against asbestos available from air-purifying respirators and therefore, no longer recommends them for asbestos applications.

To implement its recommendations, Norton is taking the following actions, effective immediately:

1. All Norton non-high-efficiency respirators and filters certified by NIOSH for asbestos will be shipped with warning notices or labels which advise that these products are not recommended for respiratory protection in an asbestos environment, together with a recommendation that Norton 7580 or 7680 respirators be used instead.

2. All Norton high-efficiency respirators in the 7580 and 7680 Series and high-efficiency filters 7500-8, -81, -82, -83 and -84 will be shipped with a warning label advising that:

(i) Mesothelioma and lung cancer may result from breathing even small quantities of asbestos fibers, and that smoking may increase this risk substantially;

(ii) No non-powered air-purifying respirator totally removes asbestos fibers from the breathing zone; and

(iii) Respirators having elastomeric facepieces and high-efficiency filters (such as Norton's 7580 and 7680 respirators), properly fitted as required by OSHA and specified in ANSI Standard Z88.2-1980, provide the best protection against asbestos available from non-powered air-purifying respirators at concentrations where they are permitted for use.

We reiterate that, while you are technically in full compliance with present OSHA Standards if you continue to use the Norton 7170 and 7406L respirators or the 7500-6 filters under the use conditions specified in current OSHA standards, Norton recommends against this practice and recommends that you switch to the Norton respirators in the 7580 and 7680 Series.

If you have any questions, please contact a Norton Product Manager for Respiratory Protection.

hmg

CORRECTION NOTICE

The following changes to package label No. 40-700203 Rev. C are effective immediately:

1. Last sentence, first paragraph, rear of package, respirator applications: delete the entire sentence and replace with: "This respirator is not approved for use in atmospheres containing asbestos dusts and mists (see Warning)".
2. Change the "WARNING" block to read:

   This respirator must not be used in atmospheres containing oxygen at a partial pressure less than 148.2 mm mercury (19.5% by volume oxygen at sea level). This respirator should not be used in atmospheres which contain harmful vapors or gases or for protection against volatile dusts which emit vapors or gases. It must not be used in poorly ventilated areas, in enclosed spaces, for abrasive blasting, or for fire fighting. This respirator is approved for use in atmospheres containing asbestos under TC-21C-1704, but is not recommended for such use. Better protection against asbestos is provided by high efficiency filters used with elastomeric facepieces such as the Norton No. 7580 or equivalent.

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