

SHELL CHEMICAL COMPANY

REFERENCE

811.5

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DATE APRIL 17, 1972

TO PLANT MANAGERS/SUPERINTENDENTS

FROM MANAGER - ENVIRONMENTAL ENGINEERING
ENGINEERING DEPARTMENT -
HEAD OFFICESUBJECT DOL-OSH ASBESTOS HANDLING
PROCEDURES

Attached for your information and guidance is a memo from the National Insulation Manufacturers Association, Inc. to member thermal insulation contractors. The memo highlights important provisions of the DOL-OSH emergency standard for asbestos dust sent to you on 12/14/71 and gives suggested guidelines for complying with the DOL regulations. A permanent DOL standard at least as restrictive will be issued in early June 1972.

R. L. Maycock
R. L. Maycock

PLAINTIFF'S EXHIBIT

SH-1348

Attachment

cc - Divisions - Manufacturing - Manager
Agricultural Division - Western Marketing Region - Mr. R. W. Swain

LAM 024274

ABS-007453

NATIONAL INSULATION MANUFACTURERS ASSOCIATION, INC.

7 KIRBY PLAZA - MT. KISCO, N. Y. 10549

(914) 241-2284

February 15, 1972

TO: ALL THERMAL INSULATION CONTRACTORS

**FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT
ASBESTOS STANDARDS, RULES AND REGULATIONS
SUGGESTED GUIDELINES**

On December 7, 1971, the Federal Register published Emergency Temporary Standards for Asbestos Dust as enacted by the Secretary of Labor, U.S. Department of Labor.

These standards reduced the Threshold Limit Value for Asbestos Dust from 12 fibers per milliliter of air greater than 5u in length to a lower allowable limit as follows:

"The 8-hour time-weighted average airborne concentration of Asbestos Dust to which employees are exposed shall not exceed 5 fibers per milliliter greater than 5 microns in length, as determined by the membrane filter method at 400-450X magnification (4 millimeter objective) phase contrast illumination. Concentrations above 5 fibers per milliliter but, not to exceed 10 fibers per milliliter, may be permitted up to a total of 15 minutes in an hour for up to 5 hours in an 8 hour day."

In addition to the reduction of the Threshold Limit Value there are a number of other requirements including engineering methods; use of approved types of respiratory equipment; employer responsibility for training and fitting of respiratory equipment; respiratory equipment cleaning and maintenance programs; local exhaust and dust collectors for hand or power operated tools; mixing cements and mortar in closed bags or other containers; waste and scrap disposal in closed sealed bags or containers; and clean-up performed with vacuum sweepers - no dry sweeping.

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ABS-007454

The revised asbestos standards of December 7, 1971 were adopted and extended to construction work in the same issue of the Federal Register as enacted by the Secretary of Labor.

On January 11, 1972 the foregoing revised standards for asbestos dust were adopted and extended to ship repairing, shipbuilding, shipbreaking, and longshoring.

On January 12, 1972 a notice of proposed rule making was published which, if and when promulgated, would constitute a "permanent standard" for asbestos dust. The proposed rule contains all of the requirements now effective in the emergency temporary standard plus requirements for monitoring (sampling) when employees use hand or power tools which produce asbestos dust or when exposed to concentrations in excess of the limits in the emergency standards; medical examinations shall be provided or made available at the employer's cost to any employee who is exposed in excess of the limits; employer must maintain records of monitoring and medical examinations for 20 years; and records of monitoring and medical examinations shall be made available for inspection.

It is important to note that the December 7, 1971 emergency standards for asbestos dust are currently effective. The January 12, 1971 standards are proposed and not currently effective.

To assist you in complying with the present December 7, 1971 emergency asbestos standards, we offer the following suggestions:

1. The Threshold Limit Value of 5 fibers per milliliter of air greater than 5 microns in length is not an unattainable level. There is no rule of thumb or simple method for determining whether or not dust levels are over the limits. If visible airborne asbestos dust can be seen in the atmosphere with the naked eye, or if there is a continuous accumulation of visible dust on horizontal surfaces, the area should be sampled to determine the extent of the concentrations. Another method for determining the existence of dust is to use a Tyndall Beam or powerful spot light. If concentrations of dust can be seen in the beam of light, sampling should be done to determine the levels of dust.

LAM 024276

ABS-007455

1. (Contd.)

Sampling or monitoring for asbestos dust as prescribed in the emergency and proposed standards require specialized engineering training, equipment and methods. Several sources for obtaining these services are as follows:

- A. Johns-Manville Industrial Hygiene Engineering Services
Attention: Mr. J. D. Garber
Greenwood Plaza
Denver, Colorado 80217
- B. George Clayton & Associates
25711 Southfield Road
Southfield, Michigan 48076

The cost of Industrial Hygiene engineering services from private laboratories is approximately \$200 to \$250 per man day, plus out of pocket expenses. Arrangements can be made through above private laboratories to purchase your own pumps, train your personnel, take your own samples and forward them to the private laboratories for counting. This latter procedure will substantially reduce the cost.

Your Workmen's Compensation Insurance Carrier or your State Department of Labor may be able to provide monitoring assistance. Be certain, however, that they are knowledgeable and adequately equipped for asbestos monitoring.

2. An approved type of respiratory equipment is required under the emergency and proposed standards. The type of approved respirator is dependant upon the asbestos dust exposure level.

For an atmosphere containing not more than 25 fibers per milliliter greater than 5 microns in length over an 8 hour average or more than 50 fibers per milliliter over any period of 15 minutes, a reusable or single-use filter type respirator, operating with negative pressure during the inhalation phase of breathing and approved by the United States Bureau of Mines - Schedule 21-B, or a valveless respirator providing equivalent protection, shall be used.

For an atmosphere containing not more than 250 fibers per milliliter over an 8 hour average or more than 500 fibers over any period of 15 minutes, a powered filter positive pressure respirator approved by the U. S. Bureau of Mines - Schedule 21-B shall be used.

LAM 024277

ABS-007456

2. (Contd.)

It is unlikely that in the normal course of installation or fabrication, providing power machinery is equipped with dust collection equipment, that the concentration of asbestos dust will exceed 25 fibers over an 8 hour period or 50 fibers over any period of 15 minutes.

We have evaluated a number of respirators for comfort, vision, ease of breathing, face fit and filter media efficiency. We suggest, therefore, that for concentrations not exceeding 25 fibers over an 8 hour period or 50 fibers over any 15 minute period the following respirators be used:

- A. Welsh Model 7165 Single-Use Disposable Respirator
U. S. Bureau of Mines Approval 21B-129
Welsh Manufacturing Company
Att: Mr. Glen Shibley
9 Magnolia Street
Providence, Rhode Island 02909

The Welsh is a disposable type respirator with an exhalation valve. It is designed to be discarded after use. Cost is approximately \$1.50 each. Being a disposable unit, this equipment would not require a respirator maintenance program.

- B. Mine Safety Appliances Dustfoe 66 or Dustfoe 77
U. S. Bureau of Mines Approved 21-B
Mine Safety Appliances Company
Att: Mr. A. K. Waugaman
201 North Braddock Avenue
Pittsburgh, Penna. 15208

Both of the MSA respirators are replaceable filter type units. These respirators can be re-used with a proper maintenance and cleaning program. Cost ranges from approximately \$4.75 each.

There are also a number of additional U. S. Bureau of Mines - Schedule 21-B approved respirators available. You may wish to explore others.

LAM 024278

ABS-007457

3. Vacuum cleaning is required under the emergency asbestos standards. It states; "All cleanup of asbestos dust and blowing shall be performed by vacuum cleaners. No dry sweeping shall be performed".

We have evaluated vacuum cleaning equipment for asbestos dust. Vacuum cleaners should have internal filtration instead of an external bag that requires cleaning. A unit with an internal replaceable paper filter can be simply dropped into the plastic bag lined dust container. Vacuum heads, with an internal filter, mounted on a 35 or 55 gallon plastic bag lined drum is suggested. Units of this type can be purchased from:

- A. Tornado Vacuum Equipment
Brewer Electric Mfg. Co.
5100 N. Ravenswood Avenue
Chicago, Illinois 60640
- B. Minuteman Vacuum Equipment
American Cleaning Equipment Corp.
111 South - Route 53
Addison, Illinois 60101

Both of the above vacuum cleaning units are 110 volts, maximum 2 H.P. The cost is approximately \$300 to \$500.

- C. Hoffman Airsystems
Division of Clarkson Industries, Inc.
103 - 4th Avenue
New York, N. Y. 10003

The Hoffman unit is a heavy duty, 220/440 volts, 5 to 7½ H.P. The cost ranges from approximately \$1500 to \$2500.

There are other vacuum cleaning units available. You may wish to explore them. Under any circumstances, we suggest that you request a trial of the equipment prior to purchase.

LAM 024279

ABS-007458

4. Local exhaust and dust collectors are required on all hand or power operated tools which produce asbestos dust such as, but not limited to, saws, scorers, abrasive wheels, drills, etc.

We have investigated dust collecting equipment and suggest that a fabric bag filter type of collector should be considered. The proposed Federal Environmental Protection Agency rules specify this type of equipment. These units can be obtained from:

Pangborn Corp.
Pollution Control Division of
Carborundum Co.
P. O. Box 1269
Middle Brook Industrial Park
Knoxville, Tenn. 37901

Dracco
Division of Fuller Corp.
Att: Mr. Robert J. Wright, General Manager
4063 East 118th Street
Cleveland, Ohio

Flex-Kleen
Division of Research Cottrell
Att: Mr. Andrew VanDerLyn
Regional General Sales Manager
407 South Dearborn Street
Chicago, Illinois 60605

Because of the variances in size and design of dust collection equipment, we are unable to provide you with an approximate cost figure. There are also a number of additional dust collection systems available. You may wish to explore others. We suggest a thorough study of your requirements be made to assure a satisfactory installation.

This information has been compiled and forwarded to assist you in complying with the Federal Occupational Safety and Health Act Emergency Asbestos Dust Standards.

The foregoing products and services suggested for use represent only a portion of those available.

LAM 024280

ABS-007459

Studies and discussions are currently underway between industry organizations, labor, and government, concerning proposed "permanent asbestos regulations". The National Insulation Manufacturers Assn. and the National Insulation Contractors Assn. are working on this problem.

If we can be of any further assistance to you, please contact the Executive Secretaries of either organization.

Very truly yours,



Clifford L. Sheckler, Chairman
Health and Safety Committee
National Insulation Manufacturers Assn.

cc: J. M. Barnhart, Executive Secretary
National Insulation Manufacturers Assn.
7 Kirby Plaza
Mt. Kisco, N. Y. 10549

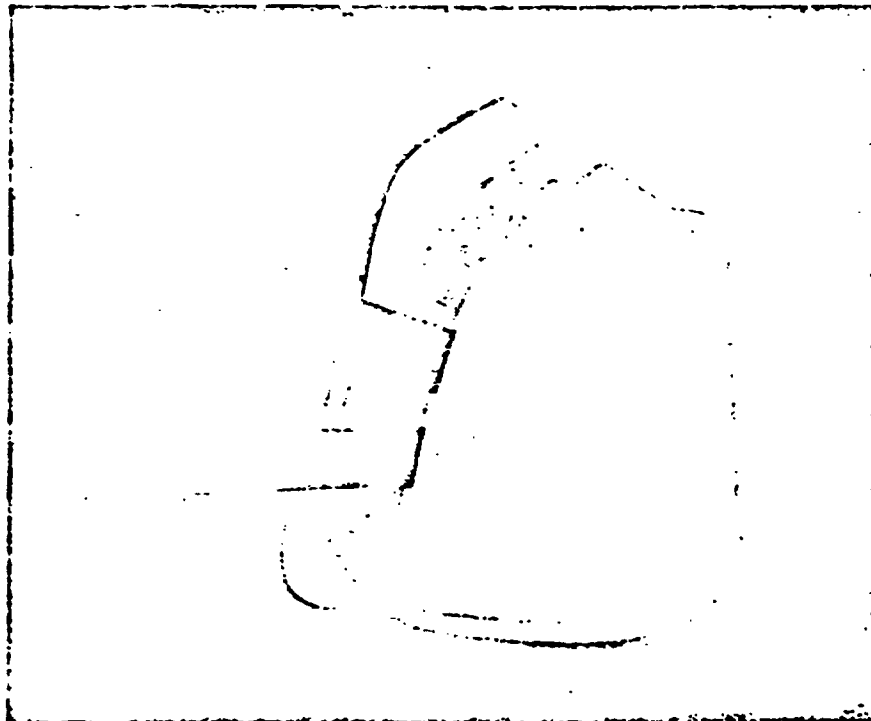
J. Pollock, Executive Secretary
National Insulation Contractors Assn.
8226 Fenton Street
Silver Spring, Maryland 20910

LAM 024281

ABS-007460

Welsh Model 7165 Single use disposable respirator

U.S. Bureau of Mines Approval 21B-129
for pneumoconiosis-producing and toxic dusts



Once you've used our new disposable respirator, you'll breathe a lot easier.

Into every man's lungs a little dirt must fall.

A completely normal occurrence considering the state of the environment.

Needless to say the last thing a poor polluted lung needs now is more of the same.

Introducing the Welsh 7165 disposable respirator for protection against pneumoconiosis-producing and toxic dusts. Field tested and found superior by major U. S. companies and workers.

Bureau of Mines approved under the strict Schedule 21B. We made it disposable to be convenient and sanitary — one person,

one time. But we also made it different to be more effective and comfortable.

With a big, wrap-around filter that resist clogging. A special inhalation/exhalation valve system that prevents moisture build-up and permits effortless, cool breathing. Fully adjustable double headbands. And a soft, pliable frame that conforms with the contours of the face.

And because of its compact size and weight (less than 2 ounces), the Welsh disposable respirator can be comfortably worn with safety glasses and goggles. No vision restrictions.

The Welsh disposable respirator . . . convenient, sanitary, economical. Throw it away after one wearing or a day's use. Eliminate the expense of respirator cleaning and maintenance programs. For further details, call 401-351-3400. Or write Welsh, 9 Magnolia Street, Providence, R. I. 02909.

LAM 024282



WELSH
A **Textron** COMPANY

ABS-007461

The Welsh single-use respirator: economical, sanitary, comfortable.

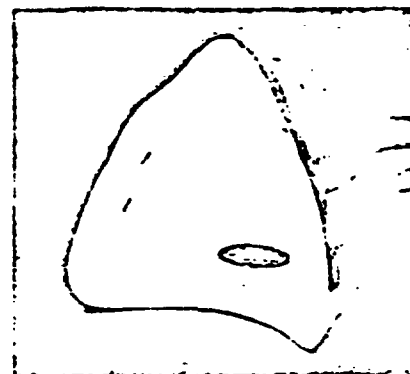
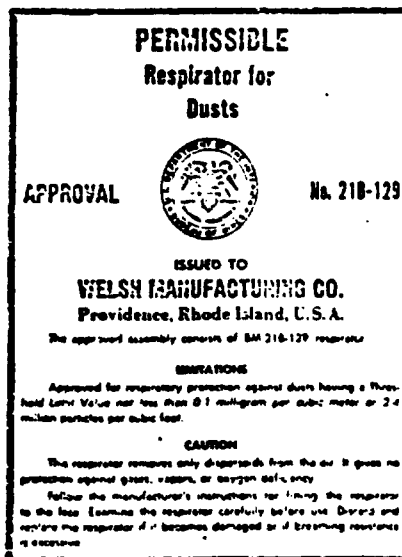
The Welsh 7165 is a compact, easy-breathing, disposable respirator for dusts. It is unusually compact, and yet has a large filter area for outstanding efficiency and ease of breathing. Worker acceptance is excellent: the 7165 is easy to wear, even with glasses, and the valve system keeps face and filter cool and dry. All this and economy too — low initial cost and low end of service cost.

Individual use: Sanitizing, filter replacement, and the costly operation of a company cleaning and maintenance program are all things of the past once you adopt single-use disposable respirators. With the Welsh 7165, each man gets a new respirator of his own as often as needed.

Economical protection: The wrap-around filter is large and thick. A fluffy outer layer prefilters the large particles while the denser inner filter finishes the job. The 7165 is inexpensive enough to throw away daily.

Bureau of Mines approved: Meets the stringent schedule 21B for dusts which have a Threshold Limit Value (TLV) not less than 0.1 mg./cu. m. or 2.4 million particles/cu. ft. Approval No. 21B-129.

Company and worker acceptance: Extensive field testing has brought approval from major U.S. companies. Surveys of worker attitudes have shown almost unanimous preference for the Welsh 7165.



only keeps the filter dry and functioning longer but keeps the wearer's face cooler and more comfortable.

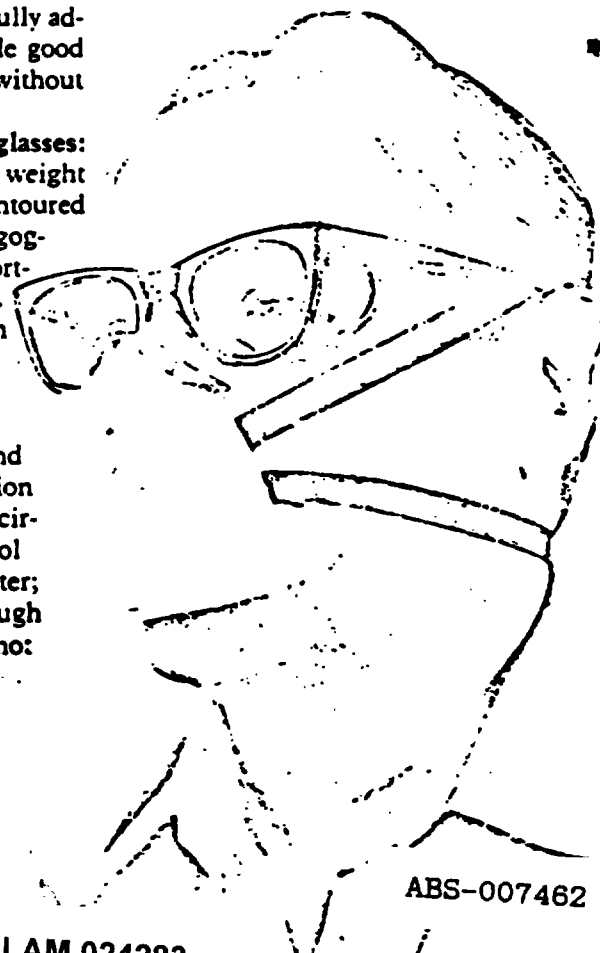
For all dust-producing operations: Mining, coke ovens, insulating, grain milling, woodworking, foundry, textile mills, detergent manufacturing and construction.

Welsh Manufacturing Company,
9 Magnolia Street,
Providence, Rhode Island 02909.

Easy fit: Molded of Welsh's revolutionary new material ETP (elastomeric thermoplastic), the 7165 is soft, non-irritating, and conforms readily to the face. A soft aluminum band may be formed to nose and cheek contours for a positive seal. In addition, fully adjustable head bands provide good respirator-to-face contact without undue pressure.

Compatible with safety glasses: The compactness, light weight (less than 2 oz.), and the contoured fit allow safety glasses and goggles to be worn more comfortably than with other masks. Vision is not restricted with the 7165 because of its design.

Day-long comfort: The large, wrap-around filter, and low inhalation and exhalation resistance gives a constant circulation of air. Cleaned, cool air comes in through the filter; hot, moist air goes out through the exhalation valve. This no:



WELSH
A **textron** COMPANY