WV-022/#55

: G.W. Quality - FYI ~~Junction~~, Mgr/GWC

FE Dailey
R.L. Foster

P584 359 608
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

UNION CARBIDE CORPORATION P.O. BOX 180, SISTERSVILLE, WEST VIRGINIA 26175
Silicones and Urethane Intermediates
SILICONES PLANT

March 15, 1985

John Kyle -
Let's take whatever information we have and estimate how much asbestos insulation remains in this Plant.
Dis by units ie
P.1 | SSP | P11 | Lab | Dist. | EP | ES | Sidings | balance of plant.
GW2

Mr. S. R. Wassersug, Director (3ENOO)
Enforcement Division
U.S. EPA, Region III
Sixth and Walnut Streets
Philadelphia, PA 19106

RE: Notification of Unscheduled Renovations
at Union Carbide's Sistersville, W.V. Facility

Dear Mr. Wassersug,

This is to notify you, as required by the provisions of 40 CFR 61.146, that Union Carbide Corporation, Old Ridgebury Road, Danbury, Connecticut 06817, as owner, expects to engage in unscheduled renovation activities during the remainder of calendar year 1985 which, in the aggregate, are estimated to involve removing 80 linear meters (260 linear feet) or more of friable asbestos on pipes or 15 square meters (160 square feet) or more of friable asbestos used to cover other facility components.

Because the renovation operations are only predicted to occur at Union Carbide's Sistersville facility during the remainder of 1985, we cannot at this time advise you when each renovation will begin and be completed and exactly how much asbestos will be removed during each renovation. We estimate the total aggregate quantity of asbestos-containing insulation to be removed during unscheduled renovation activities will be approximately 2000 linear feet from piping and 1200 square feet from other equipment. Removed insulation will be replaced with non-asbestos insulation. All asbestos containing material will be handled in a wetted state in accordance with Section 61.147. The wetted asbestos material will be placed in impermeable sealed plastic bags, delivered to the disposal area (located at the Sistersville Plant), and buried within 24 hours of delivery in accordance with Sections 61.152 and 61.156.

In our opinion, this blanket notification meets the requirements of 40 CFR 61.146 for unscheduled renovation operations. Additional notification will be provided for any single project which, by itself, will involve removing 80 linear meters or more of friable asbestos from pipes or 15 square meters or more of friable asbestos from other facility components. If you have any questions concerning this notification, please call me at (304) 652-3211, Extension 286.

Sincerely,

Edmond L. Doerflein

ELD:slc
V.02B.20

PLAINTIFF'S EXHIBIT
UC-3991

Union Carbide trial exhibit UC-3991: Edmond L. Doerflain to EPA Region III on Notification of Unscheduled Asbesto... Published by AsbestosClaims.Law
ACL Doc 18620 · Page 1 of 8 asbestosclaims.law/library/18620/1

WV-OV78437

PART 3 of 4

Adequate Planning Prevents Heat Stress at Asbestos Abatement Site

Workers may have to compromise the integrity of the sealed area when fire creates an immediate hazard

Editor's note: This is the third in a series of articles dealing with basic and often overlooked safety problems faced during asbestos abatement projects. So far, the series has examined hazards associated with electricity, ladders, scaffolding, and slips and falls. Due to the nature of restrictions and extraordinary measures involved with asbestos removal, these safety problems become more acute. This article focuses on specific problems of fire safety, emergency action planning and first-aid problems unique to the asbestos abatement project.

Removing asbestos, a hazard in itself, becomes more dangerous because of the way removal must be performed. Areas must be sealed with plastic. Emergency lighting and lighted exit signs are often removed or covered in preparing the work area. In some companies, a crew seals the work area and a separate group removes asbestos. Entrances and exits are restricted often to one way in and one way out. All of these can lead to problems if a fire or other emergency occurs in asbestos projects or at any job site.

Sealing off areas and blocking entrances and exits conflict with the Occupational Safety and Health Administration, National Fire Prevention Association and local fire code requirements. The contract specifications may state "one means of egress through a properly designed air lock and decontamination system;" however, emergency plans should be developed to include alternative exits in emergency situations. And, they must be familiar to all employees.

CHECK POTENTIAL HAZARDS. Perform a pre-work survey to determine potential fire hazards, sources of ignition, hot spots and the location of exits. Coordinate this with the number of workers to be in the area, the square footage and the types and amount of combustible or flammable materials that will remain on site.

Removing all contents from a work area prior to removing asbestos material is a good idea regardless of whether it is flammable or not. This reduces the chance of contamination.

By Michael Lowish, ASP, *Safety and Health Specialist, Environmental, Health, and Safety Division, Georgia Tech Research Institute, Atlanta, Ga.*



The clothing and closed-in nature of asbestos abatement projects can lead to heat stress in workers.

Some protective clothing used in asbestos removal will burn and melt quickly. It can shrink, adhere to skin and drip while it burns. Heavy black smoke is a combustion byproduct.

Polyethylene, which is combustible, will start to burn slowly and pick up speed as more heat is generated. It gives off heavy smoke as the fire progresses, and flames spread slowly and steadily. Sheeting should be kept away from heat sources such as transformers, steam pipes or boilers that will be heated during removal. (Polyethylene should not be allowed to contact surfaces above 150 F.) In addition, if boilers are operating in isolated asbestos removal areas, there is a danger of heat

UCC 019838

Union Carbide trial exhibit UC-3991: Edmond L. Doerflain to EPA Region III on Notification of Unscheduled Asbesto... Published by AsbestosClaims.Law
ACL Doc 18620 · Page 2 of 8 asbestosclaims.law/library/18620/2

stress among workers.

To avoid problems in asbestos control areas:

- Make sure sources of ignition are removed. Be sure that gas and other fuel sources are cut off and that pilot lights in boilers, heaters, hot water tanks and compressors are extinguished. In addition to creating a fire hazard, gas leaks create a positive air pressure with respect to areas outside the sealed enclosure.
- Locate hot spots. Often equipment will have to be draped instead of sealed off to prevent overheating (computers, terminal boards, switch panels and transformers are examples). Usually, however, this equipment is turned off during the removal project since personnel required to operate it do not have access to the area. Allowing such equipment to operate during removal would require special consideration.
- Cut off supply to steam lines, electric and steam heaters, and radiators. Do not permit polyethylene to lie against hot surfaces.
- Do not allow lighters, matches and cigarettes in the work area. Strictly enforce no smoking, eating and drinking rules inside the work area.
- When using an oxygen/acetylene torch to cut pipe, post a fire watch with an appropriate fire extinguisher such as pressurized water. Do not use carbon dioxide extinguishers in confined or enclosed spaces. Dry chemical extinguishers are effective, but the powder is a respiratory irritant.
- When using a cutting torch, know what is on the other side of the wall and below the floor. Use sheet metal or a treated tarp to catch sparks.
- Reduce the amount of flammable and combustible materials to a minimum before hanging plastic inside a space. This includes removing chemicals, flammable liquids and heat sensitive materials.
- Mark exits from the work area and post directional arrows when exits are not visible from remote work areas. This can be done using tape on the polyethylene walls and barriers.
- Keep trash and debris—tape, poly bags and lumber—to a minimum.
- If the work area is large and many workers are present, several

America's Asbestos Control Supermarket

ASBESTOS RESPIRATORS



For All Levels of Exposure

Asbestos Control Technology, Inc., is North America's leading distributor of respirator systems for asbestos work. We carry half-face negative-pressure respirators and HEPA cartridges by 3M, North, Willson and AO.

We also carry the full line of Racal Airstream powered, air-purifying respirators, including the revolutionary new "Powerflow" unit pictured here. The battery-powered, positive-pressure Powerflow is the first PAPR with a motor so small it is mounted on the face piece for the ultimate in comfort and versatility.

ACTI also offers the "ACTI-Air" purifying system for the rented compressor of your low-pressure Type C respirator system.

Or, we can provide you with a complete, high-pressure Type C system capable of supporting up to 16 men. This includes a compressor, filter systems, monitors and alarms, air bank, pressure-demand face masks, and all hoses, lines and fittings required for a fully operational system.

Call now for further information. Ask about our 18-minute PAPR demonstration video or our 90-minute training video on Type C systems.

acti®

ASBESTOS CONTROL TECHNOLOGY, INC.
P.O. Box 183, Maple Shade, NJ 08052
(In NJ) 609-235-1190

CALL TODAY! 1-800-221-1911

Circle 27 on card.

Asbestos CORRECTION SPECIALISTS

We are experienced asbestos correction contractors who can successfully survey, label, test and remove contaminated areas professionally and safely according to EPA and OSHA regulations.

- Competitive pricing anywhere in the country.
- Compare our "Occurence Insurance and Umbrella" with our competitors.
- No job too big, too small or too far.
- Members of National Association of Asbestos Abatement Contractors.
- Air monitoring, bulk testing and consulting.

Let us bid on your next project.

Superior Systems, Inc.
St. Louis, MO Lexington, KY LaCrosse, WI
1-800-942-0066
In St. Louis call 314-846-0022

Circle 28 on card.

UCC 019839

Union Carbide trial exhibit UC-3991: Edmond L. Doerflain to EPA Region III on Notification of Unscheduled Asbesto... Published by AsbestosClaims.Law
ACL Doc 18620 · Page 3 of 8 asbestosclaims.law/library/18620/3

emergency exits may be needed. Choose exits that are locked from outside but can be opened from the inside. A daily inspection should be conducted to ensure secondary exits are not blocked. Because secondary exits will probably be sealed with tape or plastic, workers should each carry a blade or knife to quickly cut or tear the material in an emergency.

- Lighting exits and exit routes should be provided.
- In case of fire, the fire hazard becomes more immediate than the asbestos hazard, and workers may need to violate the plastic barriers. Workers should be trained in the emergency action plan for the job site. If workers carry blades or knives, they can cut their own exits through the plastic barriers in a fire emergency.
- Be alert for flammable vapors—from solvents like naphtha, toluene or xylol—in industrial areas. This is especially critical in industrial vacuuming operations where vacuum motors are not explosion-proof. Compressed air vacuums may be required.
- A telephone should be available at all times for notifying authorities in an emergency. Post local fire department

Mark exits from work areas with duct tape arrows.

and rescue squad phone numbers. Advise them of the operations in progress.

- A monitor should be outside at all times who is trained in emergency procedures, first aid and treatment of heat stress.

EMERGENCY ACTION PLAN. Effective Dec. 11, 1980, OSHA revised its fire safety standards. The agency now requires a written emergency action plan and fire prevention plan. The requirements are detailed in 29 CFR 1910.38. Briefly, the plans should include:

- The manner in which emergencies are announced
- Emergency escape procedures and routes
- Procedures for employees who must remain to operate critical plant operations which may take time to shut down
- Procedures to account for all employees after evacuation
- Rescue and medical duties
- Names or job titles of people to be contacted for additional information
- A list of the major workplace fire hazards

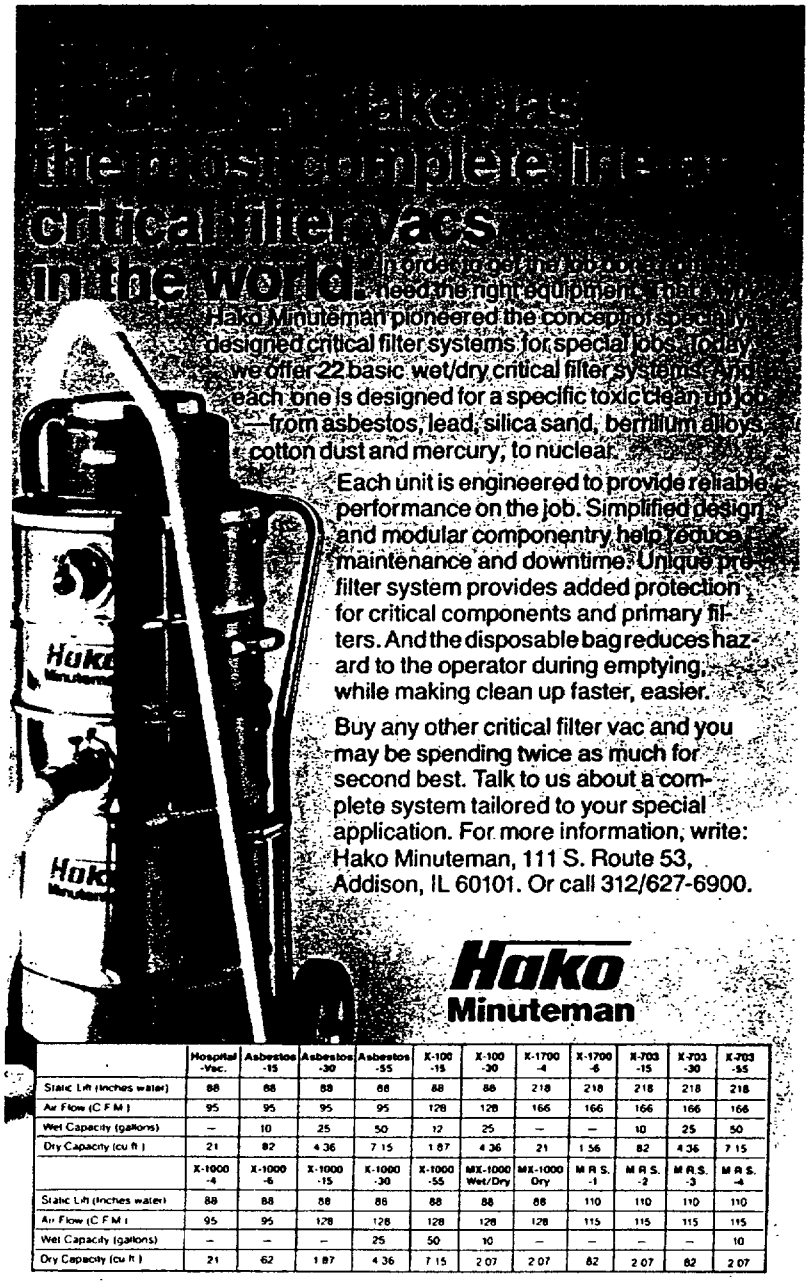
continued on page 37

Emergency Procedures: Medical Services and First Aid

The Occupational Safety and Health Administration requires that all employees exposed to asbestos be offered a physical exam within 30 days of employment and within 30 days before or after termination. The examining physician or clinic should be aware that employees will be exposed to asbestos and will be required to wear respirators and work under hot and adverse conditions.

The physician is required by OSHA standard 1910.134 to determine that the worker can safely use respirators. During warm months, heat exhaustion and heat stroke are serious hazards faced by workers, particularly those not

continued on page 35



	Hospital -Vac.	Asbestos -15	Asbestos -30	Asbestos -55	X-100 -15	X-100 -30	X-1700 -4	X-1700 -6	X-703 -15	X-703 -30	X-703 -55
Static Lift (inches water)	88	88	88	88	88	88	218	218	218	218	218
Air Flow (C F M)	95	95	95	95	128	128	166	166	166	166	166
Wet Capacity (gallons)	–	10	25	50	12	25	–	–	10	25	50
Dry Capacity (cu ft)	21	82	4 36	7 15	1 87	4 36	21	1 56	82	4 36	7 15
	X-1000 -4	X-1000 -6	X-1000 -15	X-1000 -30	X-1000 -55	MX-1000 Wet/Dry	MX-1000 Dry	M R S. -1	M R S. -2	M R S. -3	M R S. -4
Static Lift (inches water)	88	88	88	88	88	88	88	110	110	110	110
Air Flow (C F M)	95	95	128	128	128	128	128	115	115	115	115
Wet Capacity (gallons)	–	–	–	25	50	10	–	–	–	–	10
Dry Capacity (cu ft)	21	62	1 87	4 36	7 15	2 07	2 07	82	2 07	82	2 07

Circle 29 on card.

UCC 019840

Spray Poly™: No other asbestos abatement prepping system resists water, worry and wasted time.

Spray Poly is the water-based spray-on coating that replaces hanging-poly, providing the cleanest, safest and fastest job possible.

With poly and tape, you never know if it will stay put throughout the entire job. And there's always the nagging question of real protection in high humidity, multi-surface structures as the tape fails to hold and the hanging poly repeatedly falls. Spray Poly not only totally contains any room, it stays up throughout the job and provides better protection, easier cleanup, and faster turn-around.

Seals air leaks around windows and doors in one continuous coating.

Isotek, with ten years of experience in providing superior decontamination methods, has created Spray Poly to achieve the most important goals of every abatement project.

Toughness at work: on the job reliability

Spray Poly conforms precisely to the surfaces it protects, and sticks like flypaper. *Contaminants can't get under it.* Neither can water, so there's less worry about water undercreep damage.

During abatement, Spray Poly stays securely in place, providing its contamination protection without a break . . . throughout the job, through 100% humidity and extreme heat. Unlike hanging-poly that often falls down and has to be retaped, *Spray Poly completely seals the walls and floors until you decide to pull it down.* And that's when you'll appreciate Spray Poly even more. It leaves most surfaces *cleaner* than they were before it was applied because it traps the dirt and loose contaminants during application. It's pulled down as an elastic sheet that envelops and "packages" the debris. Because Spray Poly adheres to itself without trapping air, the contaminants are well-contained and won't disperse on the next wind that blows.

Built-in protection.

The same resistance to water undercreep also protects workers from slips and falls. And its resilient surface provides safe, secure footing.

Spray Poly uses water as a solvent, so there's no flash point. No fire hazard from vapors.

And it's flame retardant. Tests have shown that hanging poly can ignite in as little as 7 seconds when exposed to flame. In the same conditions Spray Poly will resist flame for 2 minutes and 38 seconds.

Less worry, less waste.

You'd expect a system this superior to require more labor, but it really requires much *less*. On comparable jobs, spraying covers 25,000 sq. ft. per man-day, while hanging poly covers only 2,500 sq. ft. per man-day. *There's no need to worry about rehanging either because once Spray Poly is up, it's up for good.*

Adheres to tough spots like overhangs or cinderblock walls; even in 100% humidity.

And clean-up is quicker because the waste is compact and easy to manage. Spray Poly produces a ball of contaminated waste about one-third the size of the cumbersome bundle created by tape and poly.

Cleaner, safer is better.

Spray Poly creates a totally improved prepping work cell that is cleaner, safer, and much easier to manage. Which means less down time, and less worry. That's better for your business. And better for you.

Spray Poly®

To get the full story, call or write today:

ISOTEK

13152 Chef Menteur Highway
Post Office Box 29799
New Orleans, Louisiana 70129
(504) 254-4115



Sprays on fast over windows, floors, smooth surfaces and rough — almost any non-porous material can be sprayed.



When the job's complete, just pull it down, wrap it around the debris, and discard it.



Spray Poly is a class A building material with flame spread rate of 20; resists flame for more than 2.5 minutes. Conventional poly, a class B building material, has a flame spread rating of 40; ignites in less than 8 seconds.



Spray Poly (right) reduces contaminated waste to about one-third the size of tape and poly waste on comparable areas.

Reduces mechanical damage — because of its adhesion and water-resistance, Spray Poly provides added protection against mechanical damage to floors and walls.

Resists dangerous undercreep — because of Spray Poly's adhesion, undercreep is restricted at the point of the cut or tear.

Resilient surface ensures safe footing.

No stopping for rehanging. Even stays up in corners.

Circle 38 on card.

UCC 019841

Published by AsbestosClaims.Law
asbestosclaims.law/library/18620/5

acclimated to the heat. The National Institute of Occupational Safety and Health, in cooperation with OSHA, the Environmental Protection Agency and the U.S. Coast Guard, is in the process of printing a health and safety guidance manual for workers at hazardous waste sites which will contain suggested methods for determining work-rest schedules for workers wearing impervious clothing.

It is important for the employer to provide training in the symptoms and effects of heat stress, including heat stroke. It is also imperative to educate workers on the importance of drinking water, maintaining proper electrolyte levels and taking adequate work breaks.

HEAT EXHAUSTION:

Symptoms: fatigue, weakness, profuse sweating, normal oral temperature, pale clammy skin, headache, vomiting, fainting and nausea.

Treatment:

- Medical alert
- Remove worker from hot area
- Have worker lie down and raise feet
- Apply cool, wet cloths
- Loosen or remove clothing
- Allow small sips of water or electrolyte fluids if the victim is conscious and is not vomiting

Prevention:

- Frequent breaks
- Increase fluid intake
- Workers should be told not to take salt tablets, but they might want to use extra salt to season their food after periods of excessive sweating
- Consult NIOSH or the American Conference of Governmental Industrial Hygienists (ACGIH) for guidelines on work rest periods.

Causes:

- High air temperature
- High humidity
- Low air movement
- Hard work
- Not enough breaks
- Insufficient fluid intake
- Full body clothing
- Workers not acclimated to heat

HEAT STROKE:

Symptoms: dizziness, nausea, severe headache, hot, dry skin, confusion, collapse, delerium, coma and death.

Treatment:

- Medical emergency
- Remove worker from hot area
- Remove clothing
- Have the victim lie down
- Cool body
- Do not give stimulants

Causes:

- High air temperature
- High humidity
- Low air movement
- Hard work
- Not enough breaks
- Not drinking enough water

continued on page 36

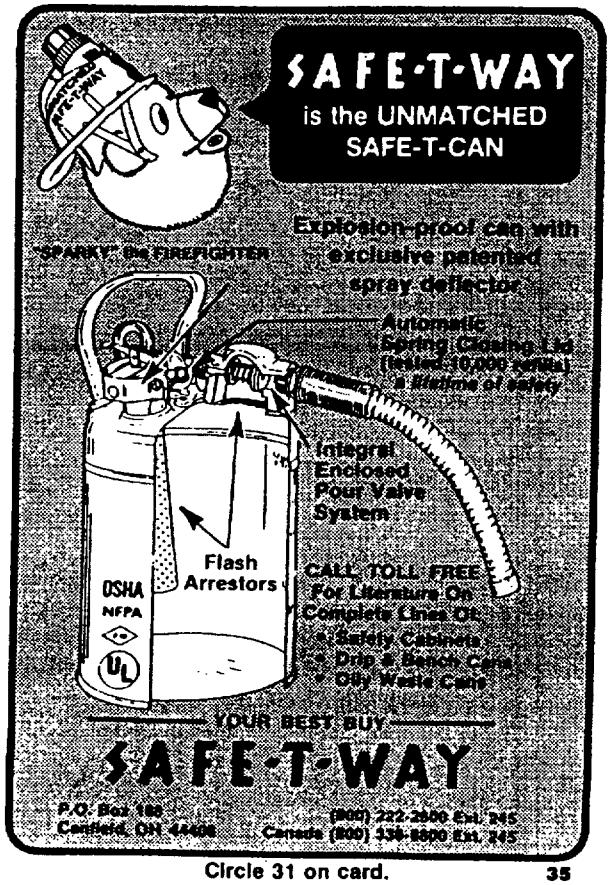


Don't risk Disaster!

When you have gasses, fumes, vapors, solvents... clean those hazardous locations with HILD explosion-proof and dust ignition proof vacuum cleaners for use in Class I, Group D and Class II, Group G hazardous locations. The most complete line of explosion-proof cleaning equipment... five vacuum cleaner models from 10 to 55 gallon tank sizes, plus hoses and attachments for almost every wet and dry cleaning need. Model CX UL Listed Explosion-Proof Floor Machine scrubs, polishes and buffs all types of floors. Write for a free brochure.

Hild Floor Machine Co., Inc.
5339 W. Lake St.
Chicago, Ill. 60644

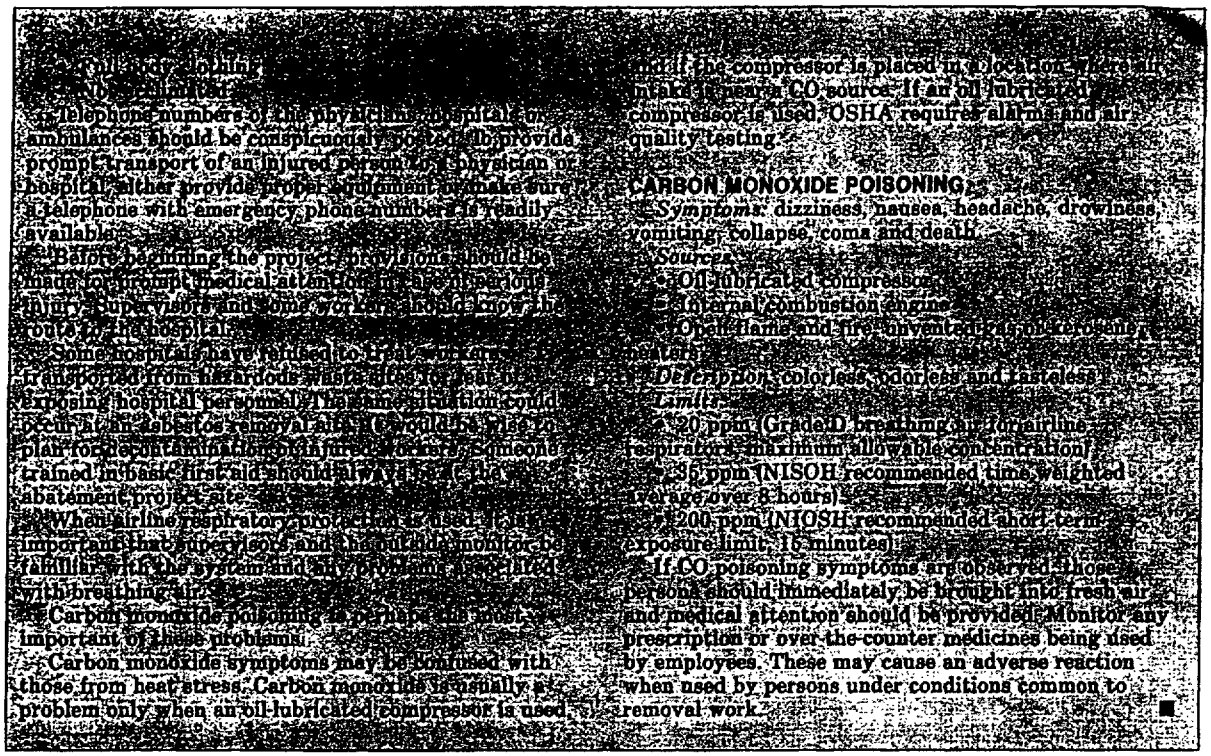
Circle 30 on card.



Circle 31 on card.

UCC 019842

ASBESTOS



telephone numbers of the physician, hospital or ambulances should be conspicuously posted to provide prompt transport of an injured person. A physician or hospital either provide proper supplement or make sure a telephone with emergency phone numbers is readily available.

Before beginning the project, provisions should be made for prompt medical attention in case of serious injury. Supervisors and some workers should know how and where to get hospital [illegible].

Some hospitals have refused to treat workers transported from hazardous waste sites for fear of exposing hospital personnel. The same situation could occur in an asbestos removal site. Provide a plan for decontamination of injured workers. Someone trained in basic first aid should always be [illegible] abatement project site.

When airline respiratory protection is used, it is important that supervisors and the buddy monitor be familiar with the system and any [illegible] associated with breathing air.

Carbon monoxide poisoning is perhaps the most important of these problems.

Carbon monoxide symptoms may be confused with those from heat stress. Carbon monoxide is usually a problem only when an oil-lubricated compressor is used, and if the compressor is placed in a location where air intake [illegible] CO source. If an oil lubricated compressor is used, OSHA requires alarms and air quality testing.

CARBON MONOXIDE POISONING:

Symptoms: dizziness, nausea, headache, drowsiness, vomiting, collapse, coma and death.

Sources:

- Oil lubricated compressors.
- Internal combustion engine.
- Open flame and fire. [illegible] or kerosene heaters.

Description: colorless, odorless and tasteless.

Limits:

- 20 ppm (Grade D breathing air for airline respirators, maximum allowable concentration).
- 35 ppm (NISOH recommended time weighted average over 8 hours).
- 1200 ppm (NIOSH recommended short term exposure limit, 15 minutes).

If CO poisoning symptoms are observed, those persons should immediately be brought into fresh air and medical attention should be provided. Monitor any prescription or over-the-counter medicines being used by employees. These may cause an adverse reaction when used by persons under conditions common to removal work. ■

MARCOR Mechanical Asbestos Removal, Inc ... THE ASBESTOS SOLUTION

IF YOU THINK ... BEING WITHIN THE LAW WILL ELIMINATE YOUR LIABILITY, OR
2 FIBERS/CC IS A SAFE PEL, OR
MOST CONTRACTORS ARE KNOWLEDGEABLE OF PROPER ABATEMENT PROCEDURES, OR
IT IS ACCEPTABLE TO HAVE A CONTRACTOR PERFORM HIS/HER OWN AIR MONITORING,

THEN YOU NEED TO TALK TO US

Asbestos contractors are like other business people, some do good work, others don't. Unfortunately, bad work can contaminate a building with cancer-promoting dust. Don't risk it. Use a firm with a proven track record. MARCOR is committed to providing the expertise, professional staff and equipment to handle any asbestos problem.

(800) 547-0128

BALTIMORE (301)628-0942 • LOS ANGELES (818)401-0722 • SAN FRANCISCO (415)895-5252 • WASHINGTON, D.C. (301)937-4858

Circle 32 on card.

UCC 019843

ASBESTOS *continued from page 33*

• Names and job titles of people responsible for maintenance of fire prevention equipment
• Names and job titles of people responsible for the control of fuel source hazard

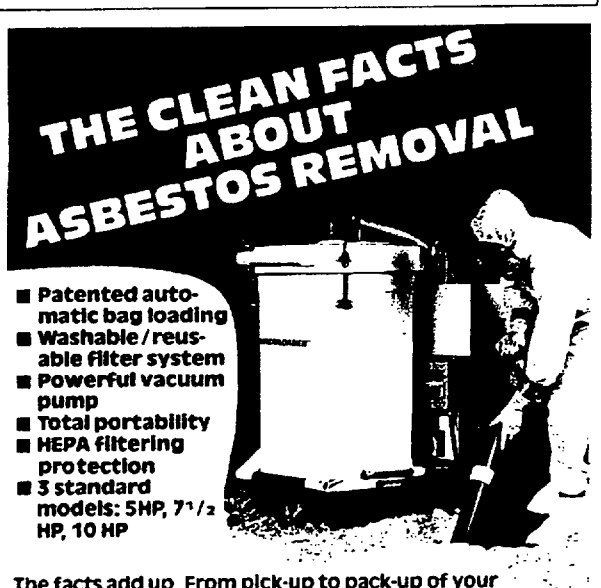
Establish a system for alerting workers of a fire or another problem that may require evacuating the work area. A compressed air boat horn provides an effective alarm that can be heard and does not rely on a power source.

All persons entering the work area should be familiar with the evacuation alarm signal and primary and secondary exits. A simple floor plan drawing of the work area should be posted to familiarize persons entering the work area with the location of exits.

Workers should drink plenty of water and take adequate breaks.

Written emergency plans should cover procedures to be used in case of: fire with heavy smoke conditions, power failure, compressor failure with the use of air-supplied respirators, accidents or employee injuries. ■

Editor's Note: Next month, the final article in this series will discuss miscellaneous hazards encountered during asbestos abatement projects.



The facts add up. From pick-up to pack-up of your wet or dry, hazardous or non-toxics, bulk or powdered materials, the *VACULOADER*™ does it better. The affordable *VACULOADER*™ teams supersuction with automatic bag loading, to provide ease of use and safe efficient disposal to make quick work of it all.

Call or write for details on the extra productivity/profitability edge only VACULOADER™ provides.

It pays to have more pull.

VACTAGON
PNEUMATIC SYSTEMS, INC.

18 Homestead Place
Bergenfield, N.J. 07621
1-201-384-2893

Circle 35 on card.

Asbestos Abatement Services, Inc.

Your Answer to the Asbestos Problem

A Professional Consulting Firm Providing:

- Inspections
- Testing
- Evaluation
- Alternative Solutions
- Specifications
- Project Management
- Certification

The simple solution to a difficult problem

4801 Massachusetts Ave., N.W.
Washington, D.C. 20016

(202) 362-2525

Circle 34 on card.

UCC 019844

Union Carbide trial exhibit UC-3991: Edmond L. Doerflain to EPA Region III on Notification of Unscheduled Asbesto… Published by AsbestosClaims.Law
ACL Doc 18620 · Page 8 of 8 asbestosclaims.law/library/18620/8