

## WORKING WITH ASBESTOS

SET PROJECTOR ON SLIDE # 1 AND START AUDIO TAPE. MUSIC...

SLIDES 2,3,4, ...MUSIC FADES....

Over the years asbestos has been widely used....in  
industry<sup>(5)</sup>...transportation<sup>(6)</sup>....homes<sup>(7)</sup>....construction<sup>(8)</sup>....  
automotive parts<sup>(9)</sup>....fire protection<sup>(10)</sup>....and many other  
applications. It has been a very popular and effective  
insulating and fire retardant material.<sup>(11)</sup>

Medical research has now determined there is a health  
hazard in breathing asbestos fibers, and the Federal  
Occupational Safety & Health Administration (OSHA) has  
developed a standard for controlling occupational  
exposure to this material.<sup>(12)</sup> ~ update

As awareness of the potential hazards associated with  
exposure to asbestos dust has spread among the manufacturing  
community.....and consumers.....asbestos has been  
virtually eliminated from most product lines.....So,  
what's our concern here at the South Charleston Plant?<sup>(14)</sup>

We're concerned because there's still a certain amount  
of asbestos in our plant in the form of insulation, packing,  
gaskets,<sup>(15)</sup> etc. installed in earlier years and still in  
service. It is for this reason we want you to be  
familiar with the OSHA standard and the safe procedures  
for handling and disposing of asbestos.<sup>(17)</sup>

If you are using a tape player not equipped for automatic slide change (sync sound).....follow the script as the tape plays and manually change slides at each point in the narration where a number <sup>○</sup> with a circle around it appears in the script. The number corresponds with the number of the slide which must then appear on the screen at that point in the narration. Note that Slide Nos. 1,2,3 and 4 change while the introductory music is playing.

Now, before we go any further, let's take a close look at some asbestos dust and understand more about why we want to avoid breathing it. (12)

Note that the fibers are long, narrow particles with sharp edges. If these aren't removed before they get into the lungs, they can become embedded in the fleshy tissues....and they tend to remain there. (19)

We're looking now at a healthy lung. The body has a built-in defense system for snagging and expelling most dust and foreign particles we breathe.....including asbestos.....

Particles which do succeed in getting into the lungs are attacked by special cells which form scar tissue over them. Then the body attempts to dissolve the particles. (20)

The trouble with asbestos fibers is that they won't absorb. So, fiber by fiber, as this dust enters the lungs, more scar tissue is formed....taking up more and more air space. The lung we're looking at now <sup>has</sup> the condition called "asbestosis," which can result over a period of years from breathing asbestos dust. The symptoms are difficulty in breathing and shortness of breath. The physician would hear crackling noises when listening to the chest through a stethoscope. (21)

Asbestosis has a long latent period, ranging from 5 years (for heavy exposures) to as long as 20 to 30 years. So, cases seen today are not necessarily an indication of present-day working conditions, but instead, of conditions existing years ago when little was known about the health effects of asbestos. (22)

The important point we want to make, then, is for you to protect yourself and your fellow employees from breathing asbestos dust. If you are a heavy smoker, this message is of even greater significance to you. (23)

*much as possible*

Moving on now to the OSHA standard, it limits your allowable exposure to no more than 2 asbestos fibers longer than 5 micrometers per cubic centimeter of air, averaged over the workday, (24) and sets a "ceiling" of 10 fibers longer than 5 micrometers per cubic centimeter of air -- not to be exceeded at anytime. (25)

*23*

What is Union Carbide doing to protect you from excessive exposure to asbestos? We've established some common-sense work practices and disposal procedures. Under most conditions asbestos is not normally in fiber form small enough to be (26) breathed. The potential problem is with the removal, cleanup and disposal of insulating materials around the plant which were installed in earlier years before we began using asbestos-free material. (27)

We provide routine periodic physicals to all employees who are exposed to asbestos fibers in their work. These include a chest x-ray.

The result of the examination will be discussed with you, and upon written request, the information will be made available to your family doctor. (28)

Asbestos fibers are released when you cut or saw the insulation. For this reason, several precautions must be taken when removing insulation; to prevent exposure. (29)

First, be sure to determine if the material you are stripping, or working with, contains asbestos. (30)

When asbestos is involved, the work area must be roped off with yellow barricade tape, and warning signs posted which read:

Asbestos dust hazard

Avoid breathing dust

Wear assigned protective equipment

Do not remain in area unless your work requires it . (31)

Breathing asbestos dust may be hazardous to your health

The barricade and signs must remain in place until the job and all cleanup are completed. (32)

The Plant Environmental Protection Department must be notified ahead of time - especially where large-scale jobs are involved, such as the stripping of more than 260 linear feet of pipe, or more than 160 square feet. (33)

You may be asked to wear a small air sampling pump while you work. The pump samples the air around you and traps any asbestos fibers present on a filter. (34)

Afterwards our Industrial Hygienist will determine the asbestos fiber concentration by studying the filter under a microscope. Whenever we monitor you, the results are sent to your supervisor who, in turn, is responsible for showing them to you. The results are also kept on file for at least 20 years. (35)

Whenever possible, asbestos must be thoroughly wetted before handling, cutting, scoring, or any other activity which could create dust. The purpose of this is to prevent loose asbestos fibers from blowing around. (36)

When working over a grating.....or a slag surface where dust can collect, be sure to cover the surface area with plastic sheeting, and keep everything on it damp. (37)

*Then the clean-up is efficient & quick -*

Whenever doing work involving asbestos, or when stripping any kind of insulation -- regardless of whether or not it contains asbestos -- the proper type of respirator must be used. For normal dust exposure, either the Norton Model 170A respirator, or the 3M disposable respirator may be used. (38)

Both of these respirators filter the asbestos, or any dust, before you breathe it. They have been tested and approved for use with asbestos. (39)

When you are in a confined space, or when dust is very heavy, a supplied-air respirator is to be used. The Safety Department provides training in the proper

use, care and maintenance of these and other respirators. (40)

Coveralls will be supplied for jobs involving asbestos, and disposable paper coveralls (41) are available from the storeroom. These work clothes are to be stored in separate lockers away from where street clothing is kept. Clothing worn while working with asbestos must be removed before you handle food or enter an eating facility. (42)

Never, never use compressed air to blow dust off of your work clothing! This is a serious violation of the safety rules! (43) Vacuum instead! (44)

Your contaminated work clothing is to be placed in dust-proof plastic bags, wired closed, and a caution label attached to each bag to alert laundry employees of the presence of asbestos dust. (45)

All waste materials, bags, debris and old insulation must be collected and disposed of in special plastic bags (46) which have caution notices printed right on the front of the bags. (47) When filled, the bags must be sealed (48) and are then transported to (49) the Goff Mountain Landfill for disposal. These bags are available from the Storeroom. (50)

If, for any reason, one of these specially-marked plastic bags is used for anything other than asbestos materials,

be sure to turn the bag wrong side out so that people will not see the cautionary notice and assume that disposal must be handled in accordance with procedures for asbestos. (51)

Finally, and most important, use good housekeeping and common sense in your work. When cutting insulation from overhead pipes, lower it to the ground. Don't drop it and stir up dust. (52)

Keep all surfaces free of accumulated asbestos dust. When cleaning an area containing asbestos dust, wet-clean or vacuum clean it. Or, when necessary, apply sweeping compound to the area. Never use a broom, brush, or an air hose to clean up dry asbestos. (53)

If you are ever uncertain about how to perform a job safely, without exposing yourself to asbestos fiber, talk to your supervisor first. (54) Don't take chances with your health. We don't want you to. If you see a possible health hazard, bring it to your supervisor's attention promptly. (55)

Also, if you have further questions about the information we have covered today, please don't hesitate to talk with your supervisor, the Plant Safety & Health Department, or the Medical Department. What we want you to do is..... (56)

Save your breath by protecting your lungs! (57)

.....MUSIC UP AND OUT.....

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