FILE NAME: Union Carbide (UC)

DATE: 0000

DOC#: UC093

DOCUMENT DESCRIPTION: Report - Health & Safety Considerations for all Craftspersons in Handling Material that Contains Asbestos

WV-0141 #98

HEALTH AND SAFETY CONSIDERATIONS FOR ALL CRAFTSPERSONS IN HANDLING MATERIAL THAT CONTAINS ASBESTOS

(With the Intent of Covering Every Craftsperson Who Might Come in Contact With Asbestos)

Understanding a few facts and observing some common sense practices listed below will eliminate the Health Hazards associated with the use of asbestos and will insure the health of all craftspersons.

I. Major Concern for Asbestos Health Hazards -- In those instances when asbestos fibers are present that are longer than 5 micrometers, the greatest health hazard exists. If these fibers are inhaled into the respiratory system, they collect in the lung sacs. If the quantities of these fibers are great enough to accumulate through years of continued inhalation, they take up substantial space normally used for air. The way in which asbestos fibers are more harmful than other foreign particles that enter the lung sacs is that they are not dissolved and absorbed into body waste streams to be carried away and discharged from the body as other particles are. They remain in the lung sacs. Membranes then grow around each fiber, resulting in a fibrosis of the lung sacs. Fiber by fiber over the years results in what we term "asbestosis".

II. Normally Asbestos is Not a Major Health Hazard -- Under most conditions, asbestos is not normally in fiber form small enough to be airborne in a person's breathing zone and small enough to pass through the nasal filtering system of hair and mucous that filter out all but the very finest fibers. However, it is these small fibers longer than 5 micrometers entering the lungs that are considered to be the culprits that cause asbestosis.

III. Health Risks Associated With the Use of Asbestos Have Been Greatly Reduced -- Risk of harm to craftspersons from the use of asbestos is slight because asbestos free insulating materials are used exclusively now. Woven asbestos tape and sock has been replaced with woven fiber glass tape and sock in stores. No asbestos tape or sock is to be available from plant stores. Furthermore, previous personal sampling of the breathing zone air of employees indicates that allowable limits are seldom reached even when asbestos fibers are present in any type material or activity provided normal precautions are observed.

IV. Our Concern -- The Potential Harm From Existing Insulation Materials in the South Charleston Plant -- The potential harm to employees at the South Charleston Plant lies almost exclusively in the removal, clean-up and disposal of existing insulation materials which were applied prior to 1972.

IV. Cont'd.

The exposure we are concerned with is the stripping, clean-up and disposal of old insulation. On piping, any insulation with tar-paper weather barrier will most probably contain asbestos fibers. A number of steam traced lines were insulated with "Unibestos" (trade-name) and some of these lines will have either cloth and mastic or metal weather barrier. This material (Unibestos) contains asbestos, is easily recognized and must be handled, stripped off, cleaned-up and disposed of using full precautions.

Now, we have another concern. A number of our steam lines are in the process of extensive repairs to the weather barrier and replacement of damaged sections of insulation. These will tie into present asbestos contained in pipe covering and will cover existing asbestos contained in insulation. In the future, all this insulation will have to be considered to contain asbestos and precautions taken to eliminate hazards.

Tank covers installed prior to 1972 will be treated as though they also contain asbestos and all precautions will be taken during stripping, clean-up and disposal.

Old steam trap lines, steam tracers, etc. will have asbestos sock or tape. Should you encounter any of these situations, consider the insulation to contain asbestos and take the necessary precautions.

If you aren't sure of the kind of material you are getting ready to remove, ask your area Insulator Supervisor or observe all precautions.

V. Protection From Potential is Assured -- By following a few precautionary measures as required by O. S. H. A. regulation 1910.1001 and using sound judgment, each employee can perform his/her work in a perfectly safe and healthful manner.

Present O. S. H. A. Allowable Limit

During an eight hour period, the time-weighted average shall not exceed 2 fibers longer than 5 micrometers, per cubic centimeter of air.

O. S. H. A. -- Ceiling Concentration

No employee shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers, longer than 5 micrometers, per cubic centimeter of air. Methods of measuring airborne concentrations are spelled out in the O. S. H. A. Register, regulation 1910.1001 (e).