WV-0183 #14

PLAINTIFF'S EXHIBIT

UC-4032

Procedure for Handling & Disposal of
Asbestos Waste from the South Charleston Plant

All asbestos waste leaving the plant must be hauled to Goff Mountain disposal site, in the proper individual marked containers (dust proof polyethylene bags with all OSHA specified warnings printed there on).

The truck drivers must have in their possession a properly filled out manifest as prescribed by RCRA and the truck must have proper placard displayed according to DOT 40 CFR 172-SUBPART F. The truck bed will be covered to avoid asbestos fibers from being dispensed to the atmosphere.

Specific large truck beds will be used in hauling asbestos waste outside the plant to Goff Mountain, however other types & sizes of waste containers can be used to collect asbestos waste within the plant & then transfer to the larger (15 to 20 Cu Yd) bed South of Bldg 251 the manifest will be issued by the trucking function of the Maintenance Department, & approved by E.P.D.

B.P.J.

7/29/80

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WU-0193 #15

ASBESTOS HANDLING-CHECKLIST

DATE_____

JOB DESCRIPTION_____

_____

ESTIMATED QUANTITY REMOVED_____

LOCATION_____ / _____ / _____ / _____
Area Zone Bldg. Etc.

CRAFTSMEN_____

_____

	N/A	Yes	No
Barrier Tape Used	☐	☐	☐
Warning Signs Used	☐	☐	☐
Protective Clothing Used	☐	☐	☐
Coveralls Changed Daily	☐	☐	☐
Respirators Used	☐	☐	☐
Drop Cloth Used	☐	☐	☐
Wet Down Area	☐	☐	☐
Proper Disposal - (Bags to Land Fill)	☐	☐	☐
Dumpster Sealed or Wet Down	☐	☐	☐
Proper Clean-up (Area Housekeeping)	☐	☐	☐
Barricades Down (After Clean-up Only)	☐	☐	☐
Plant 514 Hygienist Notified	☐	☐	☐

COMMENTS_____

_____

_____

Routing
1. Area Safety File
2. W. C. Young - Safety Dept.

_____
Supervisor

UCC 021740

WV-0193 #16

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.

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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).

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WV-0193 #17

MANDATORY PRECAUTIONS AND PROCEDURES TO
BE FOLLOWED WHEN HANDLING AND
WORKING WITH MATERIALS CONTAINING ASBESTOS

CHECK LIST

1. Respirators: Shall be worn while removing and cleaning up all insulation whether asbestos is present or not. Disposable types are allowed if they meet requirements. If upper limits are reached, supplied air respiratory equipment must be used.

2. Work Area Precautions: The work area will be roped off with yellow barricade tape during the removal and clean-up of asbestos laden insulation. Warning signs to state: ASBESTOS -- AVOID BREATHING DUST -- WEAR PROTECTIVE EQUIPMENT -- DO NOT REMAIN IN AREA UNLESS YOUR WORK REQUIRES IT -- BREATHING ASBESTOS DUST MAY BE HAZARDESS TO YOUR HEALTH -- must be posted outside each barricaded area to warn an employee desiring to enter the area so he/she can take the necessary protective steps. The barricade tape and warning signs are to remain in place until the job is complete.

If the work is being performed where areas cannot be swept, or above open grating, the work area shall be covered with plastic sheeting or tarpaulins to contain the asbestos laden insulation. Over grating, this will prevent insulation from filtering through into other work areas and will protect other employees from the asbestos hazards. On slagged areas this will prevent mixing insulation in the slag, made for easier clean-up and not leave insulation residues on the ground.

3. West Clean-Up: Insofar as practicable, insulation containing asbestos should be wet down before removal, clean-up and disposal to prevent the presence of airborne fibers. If this is not practicable, place plastic sheeting under the job being stripped and mist spray, with water, the removed insulation. Where possible, strip the insulation into labeled plastic bags or drums (fiber-pacs) on the job site.

When wet removal, clean-up is impractical due to temperature--below 32° F--location and/or nature of the job, sweeping compound will be applied to the work area during clean-up.

4. Disposal: All removed insulation containing asbestos will be placed in dust-proof polyethylene bags, the bags wired closed and caution label attached to caution personnel about the asbestos contents. Bags with caution label on the bag front are being used. Each area insulation supervisor has a supply of these bags. The bagged insulation must be disposed of in land fill. This means we will place the bags in open top dumpsters and delivered to Filmont only for covering up. Large quantities may be placed wet in a dumpster bed, covered to prevent dust loss, warning labels attached and delivered to Filmont only and covered with soil.

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5. Clothing Storage: Work clothing used by insulators will be stored in separate lockers away from their street clothing. Coveralls will be supplied for jobs where insulation containing asbestos is being removed, cleaned-up and disposed of. Coveralls will be changed each day when the concentration of asbestos fibers may be heavily concentrated.

Vacuums may be used to remove dust from clothing. CAUTION--at no time will compressed air be used for dusting off skin or clothing.

6. Laundering: All protective coveralls used by insulators will be placed in dust proof polyethylene bags, wired closed, and a caution label attached to each bag to alert the laundry employees of the possible asbestos contamination of the contents.

CAUTION -- Used bags are to be disposed of and coveralls returned in clean containers.

7. Monitoring: All jobs of significant size are to be monitored. Safety Department will monitor these jobs with designated equipment for air samples at the employees' breathing air zone. Results will be recorded. One day notice should be given to the Safety Department so equipment can be prepared for the job. Monitoring results will be administered in accordance with Safety/Health Procedure No. 16.

8. E. P. A. Notification: Stripping jobs of insulation containing asbestos must be reported to the plant E. P. Department (John Soice) for all large scale jobs. A large scale job is one where more than 260 linear feet of pipe is to be stripped or a job where more than 160 square feet is to be stripped. Notification must be 20 days in advance so proper notification can be filed with E. P. A.

9. Medical Records: Will be maintained by the Medical Staff.

Respirators approved for use:

a) Normal Dust Exposure -- 3M Respirator No. 8710
Wilson Respirator No. 1400

Both of the above are of the single use, disposable type.

b) Heavy Dust Exposure -- Type "C" supplied air, continuous flow or pressure-demand type, supplied with full breathing air from breathing air cylinders.

WARNING SIGNS

To State: Asbestos
Dust Hazard
Avoid Breathing Dust
Wear Assigned Protective Equipment
Do Not Remain in Area Unless Your Work Require It
Breathing Asbestos Dust May Be Hazardous To Your Health

Warning signs are located in each Insulator building and must be used.

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CAUTION LABELS

To State: CAUTION Contains Asbestos Fibers
Avoid Breathing Dust
Breathing Asbestos Dust May
Cause Serious Bodily Harm

Caution tags for polyethylene bags containing discarded asbestos insulation materials and polyethylene bags containing coveralls used by Insulators being sent to the laundry are stocked by each Insulator Supervisor in the three Geographic areas. Bags with caution notices printed on the front are now being stocked and will be used.

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