

UNION CARBIDE CORPORATION
SILICONES AND URETHANE INTERMEDIATES
SOUTH CHARLESTON, W. VA.

MAINTENANCE DEPARTMENT

TO: Maintenance Area Superintendents
FROM: Wayne E. Williams
DATE: May 4, 1984
SUBJECT: Safety Meeting Topic for May 9, 1984

The topic for the monthly safety meeting May 9, 1984 is
Asbestos Material Removal and Disposal.

The caramate program prepared in 1982 for Asbestos Handling is still valid and each maintenance area should have their own copy. It is almost impossible to schedule everyone to a caramate presentation at the same time so if used this system will need some planning.

Because the newly published mandatory Safety and Health Training manuals allow for exemption from retraining when one can pass the inventory, we shall review - then test. Please use the April issue of maintenance provision - the form in the mandatory Safety and Health Training Manual is out of date.

Enclosed is a copy of the Leader's Guide, a copy of the Answer Key for the Asbestos Inventory, and a copy of the revised Asbestos Handling - Checklist. Also enclosed is a copy of "Asbestos Inventory" to be copied.

If you have questions please call "Willie" on extension 2856.

WEW:mb

Enclosure

LEADER'S GUIDE

MAINTENANCE SAFETY MEETING

STAIRS Code: 514-3022

MATERIALS NEEDED:

- . Asbestos Inventory for each participant
- . Asbestos Inventory (Answer Key) for leader
- . Asbestos Handling-Checklist for leader
- . Leader's Guide (this copy) - Suggested Outline

TIME: 1 Hour maximum

PROCEDURE:

1. Leader should read and be familiar with Chapter XVIII - (April 1984) Maintenance Safety Manual on Asbestos Handling.
2. Prepare meeting place for written quiz use.
3. Have each participant sign in on STAIRS sheet.
4. Ask group what they remember about Asbestos Handling from previous training - create discussion on same as a review.
5. Introduce new Asbestos Handling checklist - read or explain.
6. Give each an Asbestos Inventory for Maintenance.
7. Allow time for completion - then grade and discuss.
8. A grade of 80% or better will exempt the person from retraining.
9. All others should be scheduled to view the caramate presentation and then be retested.
10. Leader should complete the STAIRS input sheet and send to Marge Toney, Building 314-2. Keep a copy for area records.

U. E. M. M. to be used

File asbestos

TO: MEMM Supervisors
FROM: Wayne Williams
DATE: Feb - 16 - 1983
SUBJECT: Asbestos Safety & Handling procedures Audits

Letter not written but idea
covered in files MSN - 1983

The 1982 Caramate presentation of "Asbestos - Safe handling and disposal" which has been placed in each maintenance geographical area has been judged to be very effective.

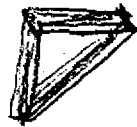
We must now all be aware of the message contained therein and continue to be assured that the procedures and necessary audits are completed.

Must see that:

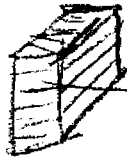
1. All Asbestos training and update are placed on stairs
2. Procedures check list is followed, respirators, Caramate, wet cleaning, proper disposal, ^{clothing} storage, laundering, safety dept monitoring, and EPA notification
3. Routine audits pin-point procedural errors & safety problems.

Remember to retain records of Special handling:

1. Training manifests for Log Mtn, Wash D.
2. Laundry charges for "Special handling" of coveralls.
3. Records from Time's Safety Dept. called in to Monitor.
4. Stair records & annual training



asbestos trucking records



- Jon C. Middle

X-2090

Bldg. 406-203

Hazardous Waste Disposal
Trucking Permits



Environmental Protection



hou Dickerson
X-2058

Bldg 406-111

Develop method of Auditing the level
of training & compliance for handling
asbestos -

1. Trucking Records - Manifests for load haul to E.P. to Giff Mountain.
2. M.M. Records - Laundry costs for special coveralls used by insulators
3. Stairs Records - Asbestos Training done
4. Safety & Health (Hygienist) records

MEMO

AVOID ORAL INSTRUCTIONS

DATE 198

TO

Mr. [unclear]

1. all [unclear] [unclear] [unclear]

2. College [unclear] [unclear] [unclear] - No retaining requirements.

3. [unclear] [unclear] [unclear] [unclear] [unclear] [unclear]

Ladder Use - Inventory

DL-686-J

SIGNED

MEMO

AVOID ORAL INSTRUCTIONS

DATE

198

TO

Contents of chart
gasket matl. { 70% asbestos Fiber
30% Binder

Harlock

— David Foster —
usual one to — Warren Matthews
talk to

3 1/2 years ago —
non-asbestos gasket matl.
was poorly introduced

Gen. Engrs. Co. —

So. Chas. W. — (See Calendar)

514-686-D

+ DO IT THE SAFE WAY + SIGNED

MEMO

AVOID ORAL INSTRUCTIONS

DATE

6-22 1984

TO

J.C. Cogor 3227

Jerry Cogor will talk
to Paul Carpenter/John Kead

About Gasket matl & gasket cutting —

W. H. H.

514-686-D

+ DO IT THE SAFE WAY + SIGNED

UCC 003277



INTERNAL
CORRESPONDENCE

BCS / W.W.

UNION CARBIDE CORPORATION SOUTH CHARLESTON PLANT

Silicones and Urethane Intermediates

P.O. BOX 8004, SOUTH CHARLESTON, WV 25303

To (Name) Maintenance Area Superintendents

Date July 14, 1983

Originating Dept.

Area

Copy to Assistant Plant Managers
J. S. Cornell
C. E. Fry
R. W. Holland, Jr., M.D.
--- R. A. Ream
B. G. Stump
T. G. Swanson

Subject OSHA Plans Asbestos Exposure
Limit Reduction

The attached report appearing in OSHR should be of general interest since proposed changes may have an impact on your operations/activities.

Bill Young

WCY:b1

Attachment

UCC 003278

November 2, 1983

TO: T. G. SWANSON

COPY: J. J. ASHWORTH
A-1 SUPERVISORS
J. L. TAYLOR

W. E. WILLIAMS
W. C. YOUNG
W. S. MEASE

NOV 10 1983

FROM: C. R. GILLESPIE

SUBJECT: REMOVAL OF 3" LINE (ASBESTOS COVERED), BLDG. 303

CONDITIONS FOUND AND RECOMMENDED CHANGES

- o This was a job left over from the Steam Trap Group supervised by Scott Mease.
- o Craftpersons involved, J. A. Jenkins, J. A. Means, J. D. Shinn and Insulators.
- o Approximately one month ago the insulation was removed from the flanges (by Insulators) in preparation for the pipe removal. The job was delayed due to shortage of manpower.
- o The ends of the insulation (asbestos) was not sealed due to the fact, the pipe was to be reinstalled and re-insulated. Sealing of the ends is not a part of the safety procedure but certainly would be a good practice.
 - o Maintenance Safety Procedures should be changed to include the sealing of exposed end of Asbestos material.
 - o Area 1/5 Insulators shall be notified to make the above a part of their removal procedure.
- o The insulation was removed from the pipe after the pipe was dropped out of the rack and taken out of the building. There was some asbestos left on the floor caused by rigging the pipe out of the rack and moving it outside. The Zone Supervisor was requested to clean the area up (not his responsibility).
 - o Maintenance Safety Procedures should be revised to include the following: "Asbestos Insulation shall be removed before piping and equipment is removed"
 - o Area 1/5 Insulators and Zone Supervisors shall be notified to remove Asbestos Insulation before removing piping and equipment.
- o In the future, Energy conservation jobs will be the responsibility of the Zone Supervisor.
- o According to W. C. Young (Safety Dept.) the insulation removal from the pipe was done in an expert manner. The job was monitored by the Safety Dept.

11-3-83

~~Terry's report is subject to your approval.~~

~~As per John's conversation
(and note attached), the blame is
placed on John Jenkins. No blame to the
writer or rigger. A little "after
cleanup" should have been done by the two
writers and rigger.~~

~~Williams~~

Jock
OK to me - Will you
ask Williams to make
procedure change
JCS

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
SOUTH CHARLESTON, WEST VIRGINIA

MAINTENANCE DEPARTMENT

For Your Information E.E.B.
HEALTH AND SAFETY CONSIDERATIONS FOR INSULATORS
IN HANDLING ASBESTOS CONTAINED MATERIALS

Understanding a few facts and observing some common sense practices listed below will reduce the health hazards associated with the use of asbestos and will ensure the health of Insulators and their co-workers.

1. Major Concern for Asbestos Health Hazards - In those instances where asbestos fibers are present that are longer than 5 micrometers, the greatest health hazards exist. 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," (a non-malignant, scarring and thickening of the lung tissues).

2. 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 mucus 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.

3. Health Risks Associated with the Use of Asbestos Have Been Greatly Reduced - Risk of harm to Insulators and their co-workers from the use of asbestos is slight because non-asbestos insulation materials are used almost exclusively now. The only exception to this is woven asbestos tape which presents no problem because

very little dust and airborne fibers result when it is cut and applied. Furthermore, 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, cleanup, and disposal of existing insulation materials which were applied prior to 1972.

V. Protection from Potential is Assured - By following a few precautionary measures as required by OSHA regulation 1910.93 and using sound judgement, each employee can perform his/her work in a perfectly safe and healthful manner.

Present OSHA Allowable Limit

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

Proposed OSHA Allowable Limit Effective July 1, 1976

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

OSHA - 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 OSHA Register, regulation 1910.93a(e).

Mandatory Precautions and Procedures to be Followed
When Handling and Working with Materials Containing Asbestos

CHECKLIST

1. Respirators: Will be worn while removing and cleaning up all insulation, whether asbestos is present or not. See "Respirators" below for approved type. Insulation supervisors are responsible for determining the proper respirator to be used and will monitor each job while in progress for compliance.
2. Work Area Precautions: Work area will be roped off with yellow barricade tape during the removal of asbestos laden insulation and warning signs will be posted outside of each roped off work area to warn employees desiring to enter the area so that he/she may take the necessary protective steps. See "Warning Signs" below.

If work is being performed on levels above open grating, the grating area under the work being performed will be covered with drop cloths, tarpaulins, or polyethylene film to contain asbestos that might fall or filter down through the grating to work areas below. This requirement is necessary to protect other employees from asbestos hazards.
3. Wet Cleanup: Insofar as practicable, removed insulation containing asbestos shall be handled in a wet state. Removed insulation will be wet down with water sufficiently to prevent the emission of airborne fibers. Wet sweeping and wash-down will be carried out on all jobs where possible.

When wet cleanup is impractical due to time, location, and/or nature of the job, sweeping compound will be applied to the work area during cleanup.
4. Disposal: All removed insulation containing asbestos fibers will be disposed of in dustproof polyethylene bags. These bags are to be securely wired closed. These bags will be special bags with all OSHA specified warnings printed directly on them. Bags will be stocked at Building 109 by Area 6 Maintenance and will be readily available.

All waste insulation materials containing asbestos fibers will be disposed of in landfill. This waste material will be covered within 24 hours of deposit with at least six inches of compacted, non-asbestos containing materials. Care should be taken during the disposal process to insure that the polyethylene bags, containing asbestos laden insulation waste, are not broken open.

5. Clothing Storage: Work clothing used by Insulators will be stored in separate lockers away from their street clothing. On jobs where asbestos fiber contamination of clothing is heavy, coveralls will be exchanged after each shift. CAUTION: At no time is compressed air to be used for dusting off skin or clothing.
6. Laundering: All protective coveralls used by insulators will be placed in dustproof polyethylene bags to be sent out for laundering. These bags will be the same as the bags used for waste asbestos insulation disposal and will therefore be marked with all specified OSHA warnings. This is necessary to alert the laundry employees of possible asbestos contamination so that they may take the necessary precautions.

Clean coveralls will be returned from the laundry in clean, asbestos-free containers.

A letter will be sent out to the laundry, outlining our procedure for handling asbestos contaminated clothing. This letter will specify the precautions we will be taking to protect both our employees and the laundry employees against possible asbestos hazards.
7. Training - An information session was held on April 21, 1976 with all Area 6 Insulators. Dr. R. W. Holland, Plant 514 Medical Director, made a slide presentation and explained the health hazards associated with the use and handling of asbestos materials. He also had a period of open discussion and questions. Dr. Holland then read and explained the present OSHA regulation 1910.93 for the handling of asbestos materials, and further discussed the proposed changes to these regulations which could become effective July 1, 1976. Dr. Holland discussed the new medical surveillance required and explained the new medical test. He asked for the support of all craftsmen and supervisors involved with asbestos materials in the South Charleston Plant.

The rough draft of the proposed Plant 514, "Health and Safety Considerations for Insulators in Handling Asbestos-Contained Materials," was read and explained.

Proposed Training

1. A session will be held with each of the three insulator groups prior to July 1, 1976 for the purpose of formally instituting this procedure and to get understanding and acceptance from everyone involved.
2. A review of this procedure will become part of our yearly "Maintenance Safety Review Checklist" and will be made with each insulator annually and recorded on his individual checklist under Item No. 26 (Special Training).

Area 6 Maintenance will be responsible for the training of all new insulator apprentices in this policy and procedure.

8. Medical Surveillance - To be carried out by our Medical Department.

Respirators

- A. Normal Dust Exposures - 3M Respirator No. 8710
Willson Respirator No. 1400

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

- B. Heavy Dust Exposures - 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 Requires It
Breathing Asbestos Dust May be Hazardous to your Health

Warning signs are located in each Insulator building.



UNION CARBIDE CORPORATION
(HEREINAFTER CALLED "BUYER")

MAIL INVOICE IN DUPLICATE
TO P.O. BOX 8004
SOUTH CHARLESTON, W. VA. 25303

14 No.

PURCHASE ORDER
314-705347-1

BUYER HEREBY ORDERS THE ITEMS DESCRIBED BELOW SUBJECT TO THE TERMS AND CONDITIONS HEREIN
CONTAINED, INCLUDING OTHERS ON THE REVERSE SIDE HEREOF. (E.O.)

1 ← PAGE NO.

DEL. TO BL. 307-1 GEN REPAIR SHOP EXPD. 5 (HARRAM)
HOYLMAN-MUFFMAN INC.
728 WINFIELD RD.
P O BOX 547
ST ALBANS WV 25177

SHIP TO: UNION CARBIDE CORPORATION
BUILDING 314

SOUTH CHARLESTON, WV 25303

SHIPPING
NOTES
TO
THIS
ADDRESS

P.O. BOX 8004, SOUTH CHARLESTON, WV 25303
AREA CODE (304) 777-1866

(HEREINAFTER CALLED "SELLER")

ADDRESS CORRESPONDENCE TO 260 J. D. HUSSON

TERMS OF PAYMENT										TC		00 2 SELLER		TRANSPORTATION TERMS (SEE NOTICE ON REVERSE SIDE HEREOF): ACCOUNT OF										VENDOR		COM CODE		ESTIMATED PRICE	
FO B POINT										SHIP VIA		YOUR TRUCK												SUBJECT TO STATE, LOCAL SALES TAX		REC LOC		514	
ITEM	QUANTITY	U/M	UNIT PRICE	DISCOUNT	P/A	D/E	TO LOC	TO ACCT	I/N	1ST NO.	2ND NO.	C & P	C/C	F/C	P/N	B/M REQUISITION NO	NET TOTAL PRICE												
001	1	PC	400.0000													H 431157	400.00												
EXPEDITING CODE: D																													
60-00980411																													
AUTOMATIC HEAVY DUTY ELECTRIC WASHING MACHINE																													
PN A209, MAYTAG, WHITE																													
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60-00980411																													
AUTOMATIC HEAVY DUTY ELECTRIC DRYER, PN DE410, MAYTAG, WHITE																													
FOR: WASHING COVERALLS MAINTENANCE INSULATORS																													
CONFIRMING CONVERSATION WITH DOTTIE GOFF, 755-8234																													
DO NOT DUPLICATE																													
TOTAL																775.00		*****											

UNION CARBIDE CORPORATION

WHEN ACKNOWLEDGEMENT IS ATTACHED, PLEASE SIGN AND RETURN AT ONCE;
OTHERWISE ACKNOWLEDGE ONLY IF SHIPPING DATE, PRICE OR OTHER CONDITIONS ARE NOT ACCEPTABLE.
MM62-114 (4/7/76)

REQUISITIONER

PURCHASING AGENT

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
SOUTH CHARLESTON, WEST VIRGINIA

MAINTENANCE DEPARTMENT

SAFETY HAZARD SURVEY

Subject _____ Date _____

Building _____ Area/Shop _____

Apparent Hazard _____

Apparent Cause
of Hazard

Possible Solution _____

Consulted _____ Date _____

Corrective Action _____

Date Completed _____

Signed _____

UCC 003287

PROCEDURE FOR HANDLING AND 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 thereon).

The truck drivers must have in their possession a properly filled-out manifest as prescribed by RCRA. 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 and sizes of waste containers can be used to collect asbestos waste within the plant and then transfer to the larger (15 to 20 Cu Yd) bed south of building 251. The manifest will be issued by the trucking function of the Maintenance Department and approved by E.P.D.

From Conversation - w/ Lynn Phair 6/17/82

need! Asbestos Handling

- 1. audits ?*
- 2. Follow-up ?*
- 3. frequency ?*

BPJ
7/29/80



INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

SOUTH CHARLESTON PLANT P.O. BOX 8008, SOUTH CHARLESTON, W. VA. 25303

To (Name) Maintenance Supervision
 Division
 Location

Date October 29, 1979

Cooperating Dept.

How being reported to:

Copy to Mr. P. D. Balmert
 Mr. R. N. Bates
 Mr. W. B. Troutman
 Mr. D. D. Wragg

Subject Removal of Insulation

Gentlemen:

The new asbestos handling procedure has resulted in questions about other crafts removing insulation. Although this procedure places restrictions on how insulation is removed, it does not specify who removes it.

Normally, employees in the insulator craft will be involved in large stripping jobs. Minor insulation removal, when incidental to other maintenance work, can be performed by other crafts. An example might be removal of insulation from flanges to replace a gasket.

The important thing to remember is that the provisions of the asbestos handling procedure apply to everyone. Obviously, the first step in any stripping operation is to determine whether or not the insulation contains asbestos. Area insulator supervisors are your best resource in this identification. IF POSITIVE IDENTIFICATION CANNOT BE MADE, CONSIDER THE INSULATION ASBESTOS.

Obviously, to comply with the procedure you will have to provide training and tools to employees who do this incidental insulation removal. It is your responsibility to: (1) identify who requires the training and ensure that training is provided, (2) provide the proper tools and equipment, and (3) enforce compliance with the procedure. By copy of this letter I am asking the Geographic Area Superintendents to make their insulation supervisors available to conduct the training and to advise you on the proper use of the procedure.

The asbestos handling procedure is Section XVIII of the Maintenance/Materials Management Safety Manual. Be sure you read it and understand it.

Very truly yours,

L. W. Phair

LWP:mb

December 7, 1983

To; J. R. Adams
R. L. Boggess
W. A. Bowles
— D. M. Fleshman
C. H. Hensley
W. B. Spurlick
W. E. Williams
G. R. Woods —
From: C. R. Gillespie

Copy: T. G. Swanson

Subject: Asbestos Handling Procedure

You have been selected to be a member of a committee to review our Asbestos Handling procedures to insure the procedures, training, and enforcement are incorporated.

Would you please review the attached material before the meeting.

The meeting will be held Thursday December 8, 1983 at Bldg. 309-2 conference room. Time 1:00 pm.

ATTACHMENTS:

- o Letter of request from T. G. Swanson
- o Maintenance Asbestos Handling Procedure (L. W. Phair)
- o Asbestos Screening Test
- o Equipment Labeling Procedure
- o Asbestos Handling check list
- o Standard Practice SH-256
- o Mandatory Training