PLAINTIFF'S EXHIBIT

UC-2092

UNION CARBIDE CORPORATION
INTERNAL CORRESPONDENCE

Jim Dement
P. O. BOX 471, TEXAS CITY, TEXAS
(Texas City retention info)

TO: M. E. Durdin
M. D. Lindsey
L. D. Pell
J. A. Roberts

DATE: November 7, 1986

CC: R. A. Mendez
J. B. Leverton

SUBJECT: ASBESTOS STANDARDS

The attached recommendations represents this committee's study on OSHA's final asbestos standards, and its impact on the Maintenance Department.

Following the charter provided, we reviewed OSHA's occupational exposure standards 29 CFR. 1910.1001 and 29 CFR 1926.58. Our conclusions and recommendations yielded from this study, are divided into four (4) major categories.

Maintenance Procedure D-12
Personal Protection Equipment
Training
Summary

These categories are attached for your information and review.

If you have any questions or comments concerning the attached documents, please contact anyone of us.

H. J. Augustus

K. E. Martin

J. E. Barnes

R. E. Woodcock

P. J. Bartlett

/mdv

RECEIVED
JAN 26 1987
MAINTENANCE DEPT.

Union Carbide trial exhibit UC-2092: Asbestos Standards Committee to M. E. Durdin et al. on OSHA's Final Asbesto... Published by AsbestosClaims.Law
ACL Doc 17112 · Page 1 of 9 asbestosclaims.law/library/17112/1

TRAINING REQUIREMENTS

OSHA standards will require extensive revisions in our monitoring procedures, medical surveillance, and employee training programs.

Monitoring changes are now being reviewed by the Industrial Hygiene Department. New equipment has been purchased and is currently in use. The medical surveillance program may be adequate. Representative from Health Services should review their requirements and adjust their procedures accordingly.

All employees entering a regulated area will require specific indepth training.

Effective 1/17/87, OSHA will require that a "competent person or persons" be certified in all aspects of handling asbestos. We as a committee, feel additional certification will be necessary due to anticipated State demands.

Union Carbide trial exhibit UC-2092: Asbestos Standards Committee to M. E. Durdin et al. on OSHA's Final Asbesto... Published by AsbestosClaims.Law
ACL Doc 17112 · Page 2 of 9 **asbestosclaims.law/library/17112/2**

PERSONAL PROTECTION EQUIPMENT

OSHA's standards changes will necessitate heavy demands for new asbestos abatement equipment. This committee recognizes the urgency in placing orders for this equipment in an effort to meet OSHA's time schedule and utilize 1986 budget dollars.

Please review our estimates listed below. Purchasing procedures can begin upon management approval of these recommendations. It should be noted that equipment needs may require updating as we adjust to the new standards in 1987.

ITEM	NO. REQUIRED	EST.COST
Portable Change Facility	3	$45,000
Negative Air Pressure System	1	3,000
HYDA Vacuums Systems	6	7,000
Powered Air Purifying Resp.	12	6,000
Misc. Item/Replacement Parts		
Filters/Warning Signs		4,000
Total Equipment Expenses		$65,000

1986 TRAINING

Certified "Competent Person"	2	$ 2,000
Insulator Procedure Training (1986 Maintenance Training Procedure)		

1987 Recommended Training

Additional "Competent" People	$ 2,000
Insulator State Certification (First Quarter)	$ 750

Union Carbide trial exhibit UC-2092: Asbestos Standards Committee to M. E. Durdin et al. on OSHA's Final Asbesto... Published by AsbestosClaims.Law
ACL Doc 17112 · Page 3 of 9 **asbestosclaims.law/library/17112/3**

MAINTENANCE PROCEDURE D-12 REVISIONS

Significant revisions to our Maintenance Procedure D-12 (Asbestos handling), are a direct result of OSHA's final asbestos standards changes. The reduction in OSHA's exposure limits allowed handling procedure changes from 2.0 to 0.2 fibers per cubic centimeter of air, as measured in an 8-hour time-weighted average. Consequently there is a significant impact on both personal protection requirements as well as confinement of contaminates procedures.

The proposed updated Maintenance Procedure D-12 is attached in the first category. However, it should be noted that this procedure is subject to future revisions as additional OSHA standards information becomes available.

Union Carbide trial exhibit UC-2092: Asbestos Standards Committee to M. E. Durdin et al. on OSHA's Final Asbesto… Published by AsbestosClaims.Law
ACL Doc 17112 · Page 4 of 9 **asbestosclaims.law/library/17112/4**

DRAFT

STANDARD MAINTENANCE PROCEDURE

NO.: D-12
PAGE: 1 of 5
EFFECTIVE: 05/04/85
REVIEWED/REVISED: 10/14/86

UNION CARBIDE CORPORATION
Solvents and Coatings Materials Division
Texas City, Texas

SUBJECT: REMOVAL AND HANDLING OF ASBESTOS CONTAINING MATERIAL

1.0 PURPOSE

1.1 To protect the health and safety of employees directly involved and others who may be exposed to dust/fibers in the immediate area of asbestos-containing material removal or demolition.

1.2 To provide a standard method of safe removal and handling of asbestos-containing material in compliance with Plant Procedure I-8-8 and OSHA Standards.

1.3 To provide a standard method of disposal of asbestos-containing material from the plant, in accordance with E.P. Department guidelines.

2.0 SAFETY

2.1 Breathing asbestos dust may cause cancer and lung disease.

3.0 EXPOSURE LIMITS

3.1 Employee 8-hour time-weighted average (TWA 8) exposure to airborne concentrations of asbestos fibers shall not exceed (0.2) fibers, per cubic centimeter of air.

4.0 PROCEDURE

4.1 A Hazardous Work Permit will be secured for any work with asbestos.

4.2 Where feasible, a negative pressure enclosure will be established before asbestos removal begins.

4.3 Caution signs will be posted at all approaches to areas where removal, demolition or handling of asbestos-containing material is being performed.

Union Carbide trial exhibit UC-2092: Asbestos Standards Committee to M. E. Durdin et al. on OSHA's Final Asbesto... Published by AsbestosClaims.Law
ACL Doc 17112 · Page 5 of 9 asbestosclaims.law/library/17112/5

UNION CARBIDE CORPORATION
Solvents and Coatings Materials Division
Texas City, Texas

SUBJECT: REMOVAL AND HANDLING OF ASBESTOS CONTAINING MATERIAL

4.3.1 The signs will conform to 20" x 14" vertical format.

R 4.3.2 The signs will state:

DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE
CLOTHING ARE REQUIRED IN THIS AREA

4.4 An appropriate barricade, using green tape, will be erected around the perimeter of regulated areas as a supplementary, protective measure to discourage unauthorized entry.

4.5 Insofar as practicable, demolition, removal or handling of asbestos-containing material will be performed while the material is in a sufficiently wet state to prevent emission of airborne fibers exceeding the exposure limits.

4.6 Removed insulation will be wetted and placed directly into labeled plastic bags or other suitable containers.

4.7 In cases where this is not practicable, place plastic sheeting beneath the job site, mist spray the removed insulation with water, then place in plastic bags.

4.8 Vacuuming will serve as an effective alternate cleanup method.

4.9 Where a portable change facility is provided, entry to and from the regulated area must be through the change facility.

Union Carbide trial exhibit UC-2092: Asbestos Standards Committee to M. E. Durdin et al. on OSHA's Final Asbesto... Published by AsbestosClaims.Law
ACL Doc 17112 · Page 6 of 9 asbestosclaims.law/library/17112/6

UNION CARBIDE CORPORATION
Solvents and Coatings Materials Division
Texas City, Texas

SUBJECT: REMOVAL AND HANDLING OF ASBESTOS CONTAINING MATERIAL

R 4.10 Containers used for disposing of removed asbestos material will bear a caution label readily visible and legible which states:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

4.11 All external surfaces will be maintained free of accumulation of asbestos fibers. Scaffolds used for this work will be cleaned.

4.12 Asbestos waste, scrap, debris, bags, containers, equipment and contaminated disposable clothing for disposal will be collected and sealed in impermeable bags or other closed impermeable containers and placed in place in an area to where damage to the containers would be at minimal.

4.13 All pipe or equipment insulated with asbestos containing will be stripped before taking to Salvage or Investment Recovery.

5.0 PERSONAL PROTECTIVE EQUIPMENT

R 5.1 Respiratory Protection - Employees engaged in the spraying (wetting-down) of asbestos, the removal; in the demolition of pipes, structures, or equipment covered or insulated with asbestos; and in the removal or demolition of asbestos insulation or coverings shall be provided with respiratory equipment as follows:

Union Carbide trial exhibit UC-2092: Asbestos Standards Committee to M. E. Durdin et al. on OSHA's Final Asbesto... Published by AsbestosClaims.Law
ACL Doc 17112 · Page 7 of 9 asbestosclaims.law/library/17112/7

UNION CARBIDE CORPORATION
Solvents and Coatings Materials Division
Texas City, Texas

SUBJECT: REMOVAL AND HANDLING OF ASBESTOS CONTAINING MATERIAL

5.1.1 An air purifying respirator may be used to reduce exposure below permissible limits, when the ceiling or the 8-hour time-weighted average (TWA 8), airborne concentrations of asbestos fibers are reasonably expected to exceed no more than ten times the PEL limits. This consists of a half face dual cart. Respirator with type "H" filter.

5.1.2 An air powered purifying respirator will be available at employee's request.

5.1.3 A pressure-demand, supplied-air respirator shall be used to reduce exposure below permissible limits when the ceiling or the 8-hour time-weighted average airborne concentrations are reasonably expected to exceed 10 times those limits.

5.2 Special Clothing - The supervisor shall provide and require use of special clothing, such as coveralls or similar whole body clothing, head coverings, gloves, and foot coverings for any employee exposed. Contaminated clothing should not be stored in lockers. A daily change is mandatory, more frequently, if conditions warrant.

A 5.3 Hygiene Facilities and Practices-

5.3.1 A portable clean change facility will be provided as necessary, adjacent to and connected to the regulated areas.

5.3.2 For the purpose of small, short term operations, an HEPA vacuum or glove bag may be used.

5.3.3 A permanent change area is provided for employees use as a follow-up for small short term operations as necessary.

Union Carbide trial exhibit UC-2092: Asbestos Standards Committee to M. E. Durdin et al. on OSHA's Final Asbesto... Published by AsbestosClaims.Law
ACL Doc 17112 · Page 8 of 9 asbestosclaims.law/library/17112/8

UNION CARBIDE CORPORATION
Solvents and Coatings Materials Division
Texas City, Texas

SUBJECT: REMOVAL AND HANDLING OF ASBESTOS CONTAINING MATERIAL

R 6.0 TRAINING

6.1 All employees entering a regulated area will be trained prior to and annually thereafter on:

6.1.1 Methods of recognizing asbestos.

6.1.2 The health effects associated with asbestos exposure.

6.1.3 The relationship between smoking and asbestos in producing lung cancer.

6.1.4 Operations that could result in exposure in asbestos, the importance of necessary protective controls to minimize exposure including, as applicable, engineering controls, work practices, respirators, housekeeping procedures, hygiene facilities, protective clothing, decontamination procedures, emergency procedures, and waste disposal procedures, and any necessary instruction in the use of these controls and procedures:

6.1.5 The purpose, proper use, fitting instructions, and limitations of respirators.

6.1.6 The appropriate work practices for performing the asbestos job.

6.1.7 Medical surveillance program requirements.

6.1.8 A review of this standard, including appendices.

6.2 All other Maintenance employees will be trained every three years.

6.3 Training records will be maintained by the Maintenance Department with a copy to the Safety Department.

ID#0084y/ivh

Union Carbide trial exhibit UC-2092: Asbestos Standards Committee to M. E. Durdin et al. on OSHA's Final Asbesto... Published by AsbestosClaims.Law
ACL Doc 17112 · Page 9 of 9 asbestosclaims.law/library/17112/9