UNION CARBIDE CORPORATION
MAINTENANCE PROCEDURE

SEADRIFT PLANT - 510

MAINTENANCE DEPARTMENT

NO: MP-I-6
PAGE: 1 of 6
EFFECTIVE: 06-22-78
REVISION: 09-30-87

ASBESTOS-CONTAINING MATERIAL/REMOVAL, HANDLING & DISPOSAL

GENERAL

This procedure is for the safe removal and handling of asbestos-containing material in compliance with OSHA 29 CFR 1910.1001, Construction Industry Standard 1926 and UCC SH 256. The purpose is to ensure the safety and health of persons directly involved with performing the work and others, who may be exposed to airborne dust/fibers. Insulation and other materials shall be considered to contain asbestos if the content is greater than 0.1%.

STANDARDS

Permissible Exposure Limits:

The permissible exposure limit is 0.2 fiber per cubic centimeter of air (f/CC), as an 8-hour time-weighted average, airbone, with an action level of 0.1 f/CC.

WORK PRACTICES

A. Only specially trained and qualified persons meeting medical requirements of OSHA General Industry Standard 1910.1001, J, shall be employed in removal or demolition of asbestos where the possible exposure could exceed permissible limits.

B. When asbestos is suspected, the Industrial Hygiene Department will be contacted to make a positive determination. If the material is asbestos, it will be marked by qualfied insulators using yellow and black stick-on labels, (Stores Item 63-486-160).

C. Demolition, removal or handling of asbestos-containing materials shall be performed in a manner that will prevent emission of airborne fibers.

D. Danger signs and barricades shall be posted at all approaches to areas which may contain airborne asbestos fibers, in concentrations which may exceed the permissalbe exposure limit, (regulated area), so that an employee may take necessary protective steps before entering the area. The signs are 20" x 14" with a vertical format stating:

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

These signs are Stores Item #63486-120.

E. In case of repair or transport of an object that is asbestos insulated, remove insulation as required, then coat or incapsulate any exposed surfaces with surfactant, mastic or poly film. Mark the object using labels as described in "B".

F. The Transportation Group will be notified when asbestos is to be transported. The person requesting transport is responsible for notification and will make sure that the item is prepared as in E.

125358

PLAINTIFF'S EXHIBIT
UC-4819

Published by AsbestosClaims.Law
asbestosclaims.law/library/19334/1

G. Salvage or demolition of asbestos covered equipment will be done on site using practices as required by this procedure, and Construction Industry Standard 1926.58.

H. Bags & Labels: Special reinforced plastic bags are used by plant personnel for bagging and disposing of asbestos insulation, Stores Item #14-103-602. Special labels for the bags are in Stores, Item #64-486-160. The label states:

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

I. Removal: Will be done in accordance with Guidelines per 29 CRF 1926.58, Appendix F. A regulated area must be established. This area may take the form of (1) a temporary enclosure as required by paragragh (e) (6) or (2) an area demarcated in a manner that minimizes the number of persons within the area and protects persons outside the area from exposure to airborne concentrations of asbestos.

J. Exception: For small scale, short duration activites a Glove Bag Method of removal may be used as described in Construction Industry Standard 1926.58, Appendix G.

K. Waste Disposal - Asbestos waste, scrap, debris, bags, containers, equipment, and contaminated disposable clothing, which may produce airborne concentrations of asbestos fibers in excess of prescribed exposure limits shall be collected and disposed of in sealed impermeable bags, or other closed impermeable containers in an approved landfill. A waste removal order must be obtained from the EP Department.

L. Asbestos Removal Temporary Enclosure - See page 5.

HOUSEKEEPING

All external surfaces shall be maintained free of accumulations of asbestos fibers, if, with their dispersion, there would be an excessive concentration. Special attention should be given to cleaning scaffolds used in demolition work.

PERSONNEL PROTECTIVE EQUIPMENT

All persons engaged in the removal of asbestos are required to wear a Seadrift Plant approved respirator and approved protective clothing.

A. Approved respirators are: The North Half Mask with 7500B cartridge (purple color) U.S. Safety Half Mask with 158-7-12 cartridge (purple color), M.S.A. Face Mask Respirator with type "H" (purple color) cartridge, the Full Face Mask supplied Air Respirator self contained breathing unit (Scott Air Pack), or the powered air purifying respirator (upon request).

A25359

Published by AsbestosClaims.Law
asbestosclaims.law/library/19334/2

B. Coveralls: White paper (63-129-010) or yellow vinyl (63-380-120) and cotton coveralls, bright orange color, marked "asbestos removal" on back. These coveralls are washed and stored in the dirty or (contaminated) area of the Decon Trailer. Control, laundering and disposal to be in accordance with 29 CFR 1910.1001, (4) (H) (3).

C. Other protective clothing includes head covers, over shoes, rubber boots, foot covers and vinyl or rubber gloves.

INDUSTRIAL HYGIENE RESPONSIBILITY

1. Employee exposure monitoring will be conducted as required by regulations.

2. Positive determination of asbestos content (Work Practices, B) Page 1.

MEDICAL EXAMINATIONS

Medical examinations for persons doing asbestos removal and/or demolition must be conducted in accordance with OSHA Regulations, 29 CFR 1910.1001, and UCC Corporation Occupation and Health Medical Manual.

TRAINING

All employees who work with airborne asbestos concentrations, at or above the action level, must participate in an annual training program that includes these information topics:

A. Health affects associated with asbestos exposure.

B. Relationship between exposure to asbestos and smoking in producing lung cancer.

C. The quantity, location, manner of use, release and storage of asbestos and the specific nature of operations which could result in exposure to abestos. Necessary protective steps to minimize exposure including, as applicable, engineering controls, work practices, respirators, houskeeping and protective clothing.

D. The engineering controls and work practices associated with the employers job assigned.

E. Purpose, proper use, fitting instructions, and limitations of respirators and protective clothing. Initial training and annual retraining will be documented and recorded.

F. Review of all provisions contained in 29 CFR 1910.1001, Asbestos and the specific procedures implemented to protect employees from asbestos exposure.

G. Instructions for handling spills as well as emergency and clean-up procedures.

H. The purpose and description of the Medical Surveillance Program.

425300

Published by AsbestosClaims.Law
asbestosclaims.law/library/19334/3

SEADRIFT PLANT - 510

MAINTENANCE DEPARTMENT

NO: MP-I-6
PAGE: 4 of 6
EFFECTIVE: 06-22-78
REVISION: 09-30-87

ASBESTOS-CONTAINING MATERIAL/REMOVAL, HANDLING & DISPOSAL

RECORD KEEPING

A. Applicable asbestos training and medical records for UCC employees will be maintained by the location for 30 years.

B. Applicable asbestos training, retraining, and medical records for contract employees will be maintained by the contractor as required by OSHA Regulations, and will be available to UCC upon request.

ASBESTOS REMOVAL NOTIFICATION/EPA Reg. 40 CFR 61

When demolition or removal involves more that 160 squre feet or 260 lineal feet of insulation containing more than one percent asbestos by weight, either in a single project or in a predictable series of projects over a course of one year that are additive to this amount, it must be reported as follows:

A. The department in which the removal takes place notifies the EP Department at least 10 days prior to planned demolition or as soon as possible after beginning an unplanned (Emergency) project which exceeds the limits.

B. The EP Department notifies the appropriate Federal and State agencies.

OTHER:

For further information on asbestos removal and disposal refer to OSHA Regulation 29 CRF 1910.1001, Construction Industry Standard 1926, Federal EP Regulation, 40 CFR 61, UCC Standard Practice, SH 256 and Occupational and Health Medical Manual, Appendix 3.

A25361

SEADRIFT PLANT - 510

MAINTENANCE DEPARTMENT

NO: MP-I-6
PAGE: 5 of 6
EFFECTIVE: 06-22-78
REVISION: 09-30-87

ASBESTOS-CONTAINING MATERIAL/REMOVAL, HANDLING & DISPOSAL

ASBESTOS REMOVAL TEMPORARY ENCLOSURE

Prior to erecting an asbestos removal enclosure, the erecting supervisor and the responsible operating department representative will inspect the area to be enclosed for potential hazards such as pipe leaks, packing leaks, safety valves or tank vents, deteriorated electrical conduit, leaking instrument tubing or any other hazardous or potentially hazardous condition. Identified hazards will be corrected before proceeding with the enclosure construction. All lines and equipment to be de-insulated within the enclosure will be identified. The unit representative will be made aware that de-insulation of equipment in poor condition can create leaks. Now Complete Section I Of Enclosure Checklist (See Page 6 For Checklist).

Erect the enclosure frame work as agreed in Step 1 of the Enclosure Checklist. Set up the negative air machine. Begin erecting the plastic walls. When the walls restrict air flow through the enclosure, start up the negative air machine and begin using the oxygen and combustible gas monitors. When the enclosure is complete, but before asbestos removal begins, conduct an interior inspection of the enclosure. The inspection team should include the unit operating representative, the asbestos removal supervisor and at least one (1) crew member. UPON COMPLETION OF SECTION II OF THE CHECKLIST ASBESTOS REMOVAL MAY BEGIN.

If a leak or other hazardous condition occurs during asbestos removal, evacuate the enclosure and notify the unit representative immediately.

Upon completion of the asbestos removal activity the enclosure will be cleaned of any remaining asbestos residue. When airborne asbestos concentration checks meet minimum requirements, the structure will be dismantled and disposed of.

A25302

Published by AsbestosClaims.Law
asbestosclaims.law/library/19334/5

TEMPORARY ASBESTOS ENCLOSURE CHECKLIST

SECTION I

To be completed before starting the enclosure frame work:

1. All lines and equipment to be de-insulated within the enclosure are identified. Unit or Department Representative understands that de-insulation may create leaks.

2. Area to be enclosed has been inspected for potential hazards and construction can begin.

UNIT OR DEPARTMENT REPRESENTATIVE	DATE
ASBESTOS REMOVAL FOREMEN	DATE

SECTION II

To be completed after the enclosure has been constructed and before asbestos removal begins:

1. The enclosure has been inspected for hazards and potential hazards and has been found acceptable.

2. The oxygen and combustible gas analyzers and the negative air machine are in service. When applicable, a toxic gas test will be conducted and test frequencies established. The HWP will set forth requirements for oxygen, combustible gas and toxic gas tests.

3. The asbestos removal crew has been instructed on evacuation of the enclosure and immediate notification of the unit representative if a leak occurs.

4. Asbestos removal work may begin.

UNIT OR DEPARTMENT REPRESENTATIVE	DATE
ASBESTOS REMOVAL FOREMEN	DATE

POST THIS COMPLETED DOCUMENT WITH THE HAZARDOUS WORK PERMIT

125003