WV 0152-1

PLAINTIFF'S EXHIBIT

UC-4048

UNION CARBIDE CORPORATION

TECHNICAL CENTER

SOUTH CHARLESTON, WEST VIRGINIA

RECEIVED

OCT 4 1983

R. C. ELLIS

MEMORANDUM

SEPTEMBER 30, 1983

TO: Mr. C. D. Twait

COPY: Mr. P. D. Black*
Mr. R. C. Ellis*
Mr. J. E. Llana*
Mr. E. C. Powell, Jr.
Mr. J. L. Riffle*
Mr. D. T. Watters

FROM: D. W. Moody, Jr.

SUBJECT: ASBESTOS FIBERS HEALTH CRITERIA/SAFETY-HEALTH TECHNOLOGY MANAUL

This is in response to your memo of September 23, 1983 requesting information on current sources of asbestos in Carbide plants. Our above grade valve and piping specifications specify asbestos for the following:

1) Valve packing
2) Gaskets (Both compressed asbestos and spiralwound with asbestos filter.)

We do not plan to expand the use of asbestos to other items.

Our specifications for potable water above grade specify asbestos for both valve packing and gaskets.

We do not have specifications for breathing air in the PIPING TECHNOLOGY-VALVE AND PIPING SPECIFICATIONS Manual. However, since our plants have breathing air lines, you may wish to check with them to determine if they use asbestos in this service.

P. D. Black is responsible for our underground piping specifications. You should check with him regarding the specification of asbestos in under-group lines.

Let me know if you need additional information.

D W Moody Jr

D. W. Moody, Jr.

DWM, Jr./bm

Attachments *

Union Carbide trial exhibit UC-4048: D. W. Moody, Jr. to C. D. Twait on Asbestos in Valve Packing and Gaskets at... Published by AsbestosClaims.Law
ACL Doc 18667 · Page 1 of 5 asbestosclaims.law/library/18667/1

~~D. W. Moody, Jr. 2000/1202~~ TO E. C. Powell, Jr. 2000/1202.

AVOID VERBAL INSTRUCTIONS

FROM G. D. Twait x 3701

BLDG./ROOM 2000/1142

BLDG./ROOM

COPY D. T. Watters

RECEIVED
SEP 27 1983
D. W. MOODY

SUBJECT Health Criteria/Safety/Health Technology Manual
Asbestos Fibers Section

DATE 9/23/83

I would appreciate any of your comments on the attached write-up on asbestos fibers. This write-up will eventually be added to the Health Criteria section of the Safety/Health Technology Manual. The write-up is intended to highlight:

(1) the health hazards caused by inhalation of asbestos fibers,
(2) the steps UCC has taken to minimize personnel exposures to asbestos, an
(3) any current activities or likely sources within UCC that may result in exposures to asbestos by UCC personnel.

I am especially interested in documenting what sources of asbestos are currently in UCC facilities as well as any possible scenarios that new sources of asbestos may inadvertently be included within UCC locations.

Thanks for your help. I am assuming the responsibility for writing this from E. L. Doerflein, who has transferred to the Sistersville Plant.

Greg Twait

0-260

UCC 022309

11 ASBESTOS FIBERS

Employee exposures to asbestos fibers can occur during the removal and handling of asbestos-containing insulation material. All insulation materials approved through the use of UCC Insulation Standards have been specified asbestos-free since 1976; however, insulation installed before that contained asbestos fibers. Special precautions should be taken to assure that any new construction installed as modules is not supplied to UCC with asbestos-containing insulation.

11.1 GENERAL

Asbestos refers to a number of naturally occurring fibrous minerals of which there are six major types:

(1) Actinolite - $2CaO-4MgO-FeO-8SiO_2-H_2O$
(2) Amosite - $5.5FeO-1.5MgO-8SiO_2-H_2O$
(3) Anthophyllite - $7MgO-8SiO_2-H_2O$
(4) Chrysotile - $3MgO-2SiO_2-2H_2O$
(5) Crocidolite - $Na_2O-Fe_2O_3-3FeO-8SiO_2-H_2O$
(6) Tremolite - $2CaO-5MgO-8SiO_2-H_2O$

The principal type is chrysotile.

11.2 HEALTH EFFECTS

Inhalation of all types of asbestos fibers has been associated with these diseases:

(1) Asbestosis,
(2) Bronchial carcinoma,
(3) Cancer of the gastro-intestinal tract,
(4) Mesothelioma

11.2.1 Asbestosis. Asbestosis is non-malignant scarring of the lung tissues that is caused by the formation of abnormal fibrous tissues connecting the lungs and pleura (the delicate membrane encasing the lungs). This tissue formation induced by asbestos continues even after exposure to asbestos fibers has ceased. The average onset time for asbestosis is 20 to 40 years. The symptoms of this fatal disease is shortness of breath.

11.2.2 Bronchial Carcinoma. Bronchial carcinoma is a form of lung cancer which may develop from asbestosis. It has an average onset time of 40 years. It is suspected that many of the people who had been occupationally exposed to asbestos fibers die from asbestosis before contracting bronchial carcinoma.

11.2.3 Gastro-intestinal cancer. Cancer of the gastro-intestinal tract has been linked to inhalation of asbestos fibers. Because adverse health effects from ingestion of asbestos fibers have not been determined, asbestos-cement pipe, asbestos gaskets, and occasionally even asbestos filters are still used in potable water and food-processing systems. However, this link between gastro-intestinal cancer and asbestos inhalation has increased the concern about the harmful effects from swallowing asbestos fibers.

11.2.4 Mesothelioma. Mesothelioma is a fatal tumor of either the pleura or of the peritoneum (the pleura-like membrane that lines the abdominal cavity) and also has a long latency period.

11.3 UCC Exposure Limits

The Internal Exposure Standards list, which is compiled by the UCC Health Effects Review Board and included in the UCC Occupational Health Manual, specifies the exposure limits for asbestos to be followed for UCC employees in the U.S. and Puerto Rico. It also lists asbestos as a known carcinogen.

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UNION CARBIDE TMS
CENTRAL ENGINEERING

11.4 Handling and Removal of Asbestos-Containing Insulation Material

Federal OSHA regulation 29 CFR 1910.1001 specifies exposure limits, work practices, personal protective equipment, personnel monitoring, sign-posting, and record-keeping requirements regarding asbestos fibers. UCC Recommended Practice SH-256, Removal and Handling Asbestos-Containing Insulation Material, describes procedures to comply with OSHA and EPA regulations and to ensure the safety and health of UCC employees. EPA regulation 40 CFR 61 requires specific removal and disposal practices and also require notification of demolition or renovation activities that involve the removal and disposal of asbestos-containing insulation material.

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