Union Carbide
Agricultural Products Company, Inc.
Institute Plant

# INDUSTRIAL HYGIENE SAMPLING RESULTS

TO: Mr. G. F. Morris

Building: 23

Institute Plant

COPIES TO: Mr. D. P. Egnor

Mr. D. K. Garrett

Mr. K. G. Harless

Mr. R. L. Moss

Mr. L. W. Youngblood

Purpose: X Routine _____ Special Request

_____ Regulatory Agency Inspection

Sample Date(s): November 13, 14, 19, & 20, 1986

Sample Location: Millwright & Motor Valve Shops Department No.: 327

Process/Activity: Gasket Cutting

Contaminant: Asbestos Fibers

Exposure Limit: OSHA 0.2 fibers/cc ($TWA_8$); - ($TWA_{12}$)

ACGIH 0.2 fibers/cc ($TWA_8$); - ($TWA_{12}$)

UCC - ($TWA_8$); - ($TWA_{12}$)

Sample Type: _____ Personal X Area _____ Source

_____ Surface Wipe _____ Other (See comments)

Analytical Method: Per 29 CFR 1910.1001, Appendix A

Results: _____ See Comments X See Attached Table

COMMENTS: Airborne asbestos fiber concentrations were measured at the Millwright Shop and Motor Valve Shop gasket cutting stations on the above dates. A sample pump and filter were positioned about two feet above the cutting surface (i.e., in the breathing zone) at each station on each sample date. The number of gaskets cut per day at the Millwright Shop ranged from four to about ten. However, no gaskets were cut on any of the days at the Motor Valve Shop. Consequently, only one of the filters for that location was actually submitted for analysis.

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The gasket cutting process at the Motor Valve Shop is the same as at the Millwright Shop. Asbestos-containing gasket material (eg, Garlock 900) is placed on the cutting board, the actual surface of which consists of the same gasket material. An extension gasket cutter (essentially an adjustable razor blade on a pivot arm) is then used to manually cut a circular gasket. Occasionally a punch is used to produce the center holes in the gaskets though most are produced with the extension cutter. Shop employees cut their own gaskets as they need them. There is no one person designated to do this work.

The cutting stations are located on bench tops in the two shops. There are no engineering controls or special work practices in place at these stations to minimize fiber generation and/or dispersion. However, fiber generation is minimized by the fact that the fibers are bonded in the gasket material.

All of the monitoring results were extremely low and indicate that the gasket cutting activities do not pose a hazard to personnel in the shops. The minor variations among the results are negligible and may be due to the sampling and analytical procedures. The monitoring results for the Millwright Shop (which encompassed actual gasket cutting) are considered to be applicable to the Motor Valve Shop since the materials, equipment, procedures, etc., are virtually identical at the two locations.

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Currently, no action is required except that the monitoring results must be reviewed with all affected employees (i.e., all personnel who may at times cut gaskets or work in the vicinity of the cutting station). In lieu of reviewing these, copies of the results may be posted in the shops where they can be seen by all affected employees.

Report Date: January 19, 1987

Signed: Erik A. Oslay Bldg. 2 Room: 172 Phone 6105

NOTE: PERSONAL SAMPLE RESULTS MUST BE DISCUSSED

WITH ALL AFFECTED EMPLOYEES

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## INDUSTRIAL HYGIENE SAMPLING RESULTS

WORKPLACE LOCATION: Millwright & Motor Valve Shops

NAME(s) OF SAMPLER(s): J. L. Miller & H. C. Ries

CONTAMINANT: Asbestos

REPORT DATE: January 19, 1987

OSHA PEL: $TWA_8$ 0.2 f/cc $TWA_{12}$ - ACGIH TLV: $TWA_8$ 0.2 f/cc $TWA_{12}$ - UCC Guideline: $TWA_8$ - $TWA_{12}$ -

| Sample Number | Sample Date | Sample Description | Sample Time (min.) | Sample Results (f/cc) |
|---|---|---|---|---|
| | | Motor Valve Shop | | |
| W4767-AA10435 | 11-13-86 | Two feet above gasket cutting table. | 420 | 0.006 |
| | | Millwright Shop | | |
| W4766-AA10434 | 11-13-86 | Two feet above gasket cutting table | 426 | <0.001 |
| W-4769-AA10447 | 11-14-86 | Two feet above gasket cutting table. | 402 | 0.002 |
| W4772-AA10444 | 11-19-86 | Two feet above gasket cutting table. | 377 | 0.004 |
| W4773-AA10450 | 11-20-86 | Two feet above gasket cutting table. | 383 | 0.005 |

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