Minutes

Air Hygiene & Manufacturing Committee
Asbestos Textile Institute
June 6, 1968 - Regency Hyatt House, Atlanta,Ga.

In attendance:

H.H. Walter, Chairman - American Asbestos Textile Corp.
L.E. Moody - H.K. Porter Company,Inc.
H.M. Willingham - Uniroyal, Inc.
L.C. Williams - Raybestos,Manhattan,Inc.

Absent:
R.J. Smith - Raybestos-Manhattan,Inc.
C.L. Sheckler - Johns-Manville Corp.
K.W. Nelson - American Smelting & Refining Co.
A.C. Link - Uniroyal,Inc.
K.Q. Beyard - Johns-Manville Products Corp.

Guests: Dr. L.J. Cralley - U.S. Department of Health,Education & Welfare.

Bausch & Lomb Automatic Dust Counter

Mr. L.C. Williams gave a report on the tests conducted at the Raybestos-Manhattan plant in Charleston,S.C. The instrument has performed to the fullest satisfaction and proven it's feasibility for spot checks as well as for the dust control (recording) over extended periods of time in connection with the Strip Chart Recorder.

To find a correlation between the Impinger and the Bausch & Lomb Dust Counter, the instruments were placed approximately one foot apart and operated simultaneously over a period of one-half hour. The strip chart was running at a speed of 12 inches per hour, therefore charting the dust counts over a length of 6 inches on No. 37-01-31 chart paper. To find the average dust concentration during the test period, the following method was applied:

The highest and the lowest points between each pair of verticle green lines - selecting the ones touched by the recorder pen - were determined, subsequently totaled and divided by the number of readings, resulting in the averages of the high and low dust concentrations respectively. Then the average between the average high and the average low dust concentration was determined, resulting in the average dust concentration during the test period. The results were then compared with the ones from the Impinger. A comparison shows that the figures are - with few exceptions - very close together. Variations between the figures do not show any clear pattern.

A number of advantages of the Bausch & Lomb Dust Counter versus the Impinger has evolved:

1. Dust concentrations can be shown and documented at any given moment over any length of time.
2. The chart paper represents a permanent record.
3. Any extreme dust concentrations can be traced to their cause, for example, opening of windows, increased vibration, broken ends, etc.
4. The evaluation of dust counts is simple, and not readily susceptible to human error.

5. The instrument can be used for continuous unattended monitoring.
6. The operation does not require a skilled technician.
7. One person can easily conduct 25 to 30 tests per day, including the time needed for evaluation of the tests.
8. The dust counts can easily be broken down as to particle size.
9. The efficiency and simplicity of the instrument results in savings in labor cost. The instrument therefore should pay for itself in a relatively short period of time.

For the proper use of the Bausch & Lomb Dust Counter the following points should be watched carefully:
1. The air intake has to be protected by a screen in areas where many large fiber particles become airborne, to prevent the intake from clogging.
2. The instrument shall not be placed near a humidifier since it will record water droplets as dust.
3. The daily calibration requires special care and the instructions are to be followed closely.
4. Use of a pushcart is recommended whenever a series of tests in various locations is to be conducted.
5. For the use of the instrument over a longer period of time in same location, the use of an electrical outlet rather than of the batteries, is recommended.

The Dust Counter will be used at the Raybestos-Manhattan plant in Manheim, Penna., until the middle of July; then will be shipped to the Uniroyal Plant in Hogansville, Ga. The instrument may be shipped without any danger of damage, in a sturdy wooden box lined with Styrofoam.

Dust Control in the Manufacturing Process:

A member of the committee suggested that experiments should be conducted in wet spinning and/or wet twisting, since, due to proper enclosure the dust concentrations in the blending and carding operations are already reduced to a minimum. Although changes in the stucture and appearance of the woven material will be unavoidable, it appears to be advisable to experiment in that direction for the protection of our employees and those of our customers. The application of proper finishing methods should also be explored to restore or even improve the appearance of material woven with wet spun and/or wet twisted yarns.

All committee members reported that their respective companies have discontinued the use of Lenox Anti-Fly SD-5. Most companies continue, however, the use of standard mineral oil in their blending operation. Efforts to find new spraying components to hold moisture in mixes are being made.

Environmental Health Survey

Dr. L.J. Cralley, U.S. Public Health Service, reported on the progress made in research of the influence of toxic trace metals in connection with asbestos fiber. Various important publications are to be expected in the near future.

Hygiene and Labor Relations:

All committee members present agreed that it seems to be imperative to improve working conditions, rest rooms, and the general plant appearance to an extent that the asbestos textile industry can compete successfully with other industries in attracting labor, inasmuch as a higher wage level does no longer mean a decisive factor in obtaining desirable operators. Air conditioning might become a "must" in the near future.

Respectfully submitted,

H. H. Walter
Chairman