PLAINTIFF'S EXHIBIT
FD-1355

Inter Office

Personnel and Organization Staff

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March 16, 1973

Mr. J. D. Woods, Supervisor
Personnel Services and Security
Saline Plant

cc R. P. Carzoli
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Subject: Asbestos in Air - Saline Plant

The Department of Labor, under the authority of the Occupational Safety and Health Act of 1970, in Section 1910.93a of the Federal Register dated October 18, 1972, has promulgated occupational health standards in relation to the use of asbestos and asbestos laden materials. In response to these standards, a survey was conducted of Saline Plant operations relevant to the use of asbestos. The Saline Plant identified the polypropylene talc-filled plastic operation as having asbestos contaminated talc (fibrous tremolite). Industrial hygiene studies were subsequently conducted; results of air samples taken and instrumentation employed are attached.

The polypropylene talc-filled plastic operation consists of compounding talc with the plastics and then blending the materials with reground material into polypropylene pellets. Both the compounding and regrind rooms employ general and local exhaust ventilation. The principal potential exposure to talc and asbestos fiber is in the compounding room. Talc is added by bag to locally exhausted hoppers where the bags are opened on a slitting bar and disposed of through an elbow in the hood into a plastic bag attached to the elbow.

Section 1910.93a of OSHA establishes the Threshold Limit Value for asbestos (and fibrous talc-tremolite) at five fibers greater than 5 microns in length per milliliter of air and the ceiling limit at ten fibers greater than five microns per ml/air. Effective July 1, 1976 the TLV will be reduced to two fibers greater than five microns per ml/air. Subparagraph c 1910.93a states local exhaust ventilation, wet handling, and/or respiratory protective equipment varying with degree of exposure must be used as control measures. Other effective dust control measures are also acceptable. Subparagraph d specifies personal protective equipment including respirators, special clothing, change rooms and lockers be furnished employes whose work environment exceed the TLV, and that special clothes be laundered separately and the laundry advised the clothes are contaminated with asbestos fiber. Subparagraph g requires posting of areas exceeding the TLV and disposing of asbestos waste in sealed containers labeled as to the asbestos hazard if subsequent handling might cause exposure in excess of established limits. Subparagraph i requires record keeping and that the employe be notified in writing within five days of the finding of overexposure and the corrective action taken to prevent reoccurrence of the overexposure. Subparagraph j requires medical examinations consisting of posterior-anterior chest roentgenograms and

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pulmonary function tests on a pre-employment, annual and termination basis to exposed employes.

The results of the air samples on the attached data sheets reflect the exposure of the compounding room operator to be excessive if this employe did not use an approved respirator. Therefore, we recommend: (1) The capture velocity of the hoods over the mixers be maintained sufficiently high to prevent release of dust (200 lfm is suggested minimum); (2) All cleanup be done with wet methods of dust control or while wearing an approved respirator; vacuum cleaning of dust with high efficiency filter attachment is also recommended; (3) The operator vacuum accumulated fiber from his coveralls before removing his respirator and removing the coveralls; (4) Waste be disposed of per subparagraphs g and h.

If these engineering control methods are ineffective in suppressing airborne dust to acceptable levels, the following additional precautions must be instituted: (5) Special clothing be issued to the compounding room operator and other provisions of subparagraph d be followed; (6) Warning signs be posted at the compounding room per subparagraph; and (7) Medical examinations be given per subparagraph j to the regrind extruder operators on the talc operation and the compounding room operator.

Air sampling will be conducted per the monitoring clause of OSHA Section 1910.93a in August 1973.

Henry B. Lick

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Industrial Hygienist
Industrial Hygiene Section
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Attachment

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Data Sheet

Saline Plant

Asbestos Dust

Location	Concentration of Fibers Greater than 5 Microns in Length per Milliliters of Air
OSHA Permissible Asbestos Threshold Limit Value (TLV) 8 Hr. Time Weighted Avg. Exposure	5
OSHA TLV Effective July 1, 1976	2
OSHA Ceiling Concentration	10
I. Samples Taken November 2, 1972	
1. Compounding Room, Operator R. Garcia, SS #3577. Breathing zone air sample (B.Z.) - wearing Glendale respirator G.R. 2000, BM 21A-82	5.5
2. General room air sample at scales outside compounding room.	2.9
II. Samples Taken November 28, 1972	
1. Regrind Department - extruder operator C. Schultz, SS #2058 - B.Z.	3.2
2. " " " " D. Beauchamp, SS #0221, B.Z.	2.9
3. " " general air sample at G-19	0.7
4. " " " " " " overhead door near G 17	0.7
5. General Room Air Sample at scale outside Compounding Room	1.6
6. " " " " " crib outside and behind Compounding Room	0.3
III. Samples Taken February 13, 1973	
1. Compounding Room, operator C. Schultz, SS #2058 - B.Z. wearing Glendale Respirator, G.R. 2000, B.M. 21A-82 (Note: This respirator did not meet OSHA requirements for magnitude of exposure)	95.0

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Location	Concentration of Fibers Greater than 5 Microns in Length per Milliliters of Air
IV. Samples Taken March 5, 1973, Compounding Room - Operator L. Lewis, SS #6014, B.Z. wearing Glendale Respirator - G.R. 2000, B.M.-21-A-82	
1. Operation - Emptying waste bags, straightening pallets, casual free time, moving flo-bins, and checking railcar. Not using respirator.	3.7
2. Operation - Mixing and moving flo-bins	20.0
3. " " " removing coveralls to go to lunch	26.0
4. Operations - Mixing	23.0
5. " " and moving flo-bins	22.0
6. " " , moving flo-bins, stacking pallets, emptying waste bags, and straightening up to go home.	30.0
Time Weighted Average Exposure	20.4

Instrumentation: MSA Model G Portable Pump at 2 Liters per Minute and Millipore Type AA Membrane Filters, 0.8 μ.

Analysis: 430X Phase Contrast Microscopy by Environmental Health Laboratories, Farmington, Michigan.