OSHA File

MONSANTO POLYMERS & PETROCHEMICALS

From: [redacted] Safety

Date : December 11, 1972 cc: File - Asbestos

Subject : OSHA - Asbestos Standard

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An OSHA standard on asbestos became effective on July 7, 1972. The standard applies wherever asbestos is used. This plant is affected primarily because of asbestos usage in insulation. A summary of the requirements of the standard and efforts at Chocolate Bayou to meet these requirements is shown on the attached.

A copy of a Corporate Medical Department bulletin on asbestos is being circulated to the addressees. Additionally, you will soon receive a copy of the October 18, 1972 Federal Register "Occupational Safety and Health Standards". Section 1910.93a is the full text of the asbestos standard.

As is the case with all OSHA standards, the employer is responsible for compliance. Our contractors, therefore, have prime responsibility (OMC for insulation, Leavesley for furnace mortar, etc.). We are working with the contractors to insure compliance at this site. Monsanto employees may be exposed when in the area where insulation containing asbestos is fabricated, installed or removed.

Insulation manufacturers have responded to pressure from industry and are preparing to market asbestos-free insulation. Plant Engineering is working with CED in identifying a suitable replacement for asbestos insulation. This should reduce the exposure during work with new insulation, but the exposure during demolition of existing insulation will remain.

Chuck

C. H. McComb

PLAINTIFF'S EXHIBIT

MON-2503

CHM:ljl

Attachment

C 003120

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SUMMARY OF REQUIREMENTS
OSHA ASBESTOS STANDARD

REQUIREMENT	ACTION OR STATUS AT CHOCOLATE BAYOU
1. Effective July 7, 1972, the permissible exposure to airborne concentrations of asbestos fibers for an 8-hour time-weighted average (TWA) shall not exceed 5 fibers, longer than 5 micrometers, per cubic centimeter of air. 2. Effective July 1, 1976, the 8-hour TWA airborne concentration of asbestos fibers shall not exceed 2 fibers, longer than the 5 micrometers per cubic centimeter of air. 3. No employe shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers, longer than 5 micrometers, per cubic centimeter.	Instruments for measuring airborne concentrations of asbestos dust have just recently become available. (Vendors reported OSHA purchased the lot.) Texas City has two. John Fox and Bob McNeely have begun a survey to determine airborne concentrations of typical insulation jobs and the general work area. Sample results are not yet available. (Texas City has no results, either.) Results of the surveys will dictate action required to comply with the balance of the standard.
4. Engineering controls, such as isolation, enclosure, exhaust ventilation, and dust collection shall be used to meet the exposure limits described in Items 1 and 2. 5. All hand-operated and power-operated tools, such as saws, scorers, abrasive wheels, and rills, which may product or release asbestos fibers in excess of the exposure limits, shall be provided with local exhaust ventilation systems.	A vacuum dust collection system has been installed on the saw in the insulation fabrication shop. A bag-filter has been installed to collect asbestos dust.

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REQUIREMENT	ACTION OR STATUS AT CHOCOLATE BAYOU
6. Insofar as practicable, asbestos shall be handled, mixed, applied, removed, cut, scored, or otherwise worked in a wet state sufficient to prevent the emission of airborne fibers in excess of the exposure limits.	Results of the survey will determine what more, if anything, must be done.
7. No asbestos cement, water, coatings, grout, plaster, or similar material containing asbestos shall be removed from bags, cartons, or other containers in which they are shipped, without being either wetted, or enclosed, or ventilated so as to prevent effectively the release of airborne asbestos fibers in excess of the exposure limits.	The insulation storage/fabrication area may be out of compliance. The survey will tell.
8. Employes engaged in the spraying of asbestos, the removal, or demolition of pipes, structures, or equipment covered or insulated with asbestos, and in the removal or demolition of asbestos insulation or coverings shall be provided with respiratory equipment and with special clothing.	Coveralls and approved respirators are furnished to contractors involved in asbestos insulation demolition. The survey of airborne concentrations of asbestos dust will be used to determine if respirators and coveralls are required for the removal of small amounts of insulation such as from flanges, valves, etc. They are not being used now.
9. Compliance with the exposure limits described in Items 1 and 2 may <u>not</u> be achieved by the use of respirators or shift rotation of employes, except: a. During the time period necessary to install the engineering controls and to institute the work practices required in Items 4 and 5.	Results of the survey will help define what additional "engineering controls", if any, are required.

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REQUIREMENT	ACTION OR STATUS AT CHOCOLATE BAYOU
b. In work situations in which the methods described in Items 4-8 are either technically not feasible or feasible to an extent insufficient to reduce the airborne concentrations of asbestos fibers below the prescribed exposure limits. c. In emergencies. d. Where both respirators and personnel rotation are allowed under Items 9a-c and both are practicable, personnel rotation shall be preferred and used.	Results of the survey will help define what additional "engineering controls", if any, are required.
10. Where a respirator is permitted, it shall be selected from among those approved by the Bureau of Mines, Department of the Interior, or the National Institute for Occupational Safety & Health, Department of Health, Education and Welfare, and shall be used in accordance with the following requirements: a. The minimum protection required to reduce the concentrations of airborne asbestos fibers in the respirator below the permissible exposure limits (Items 1 & 2) when the ceiling or the 8-hour TWA concentrations are reasonably expected to exceed no more than 10 times those limits, shall be a reusable or single-use air purifying respirator.	Results of the survey will define the type of respiratory protection required.

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REQUIREMENT	ACTION OR STATUS AT CHOCOLATE BAYOU
b. The minimum respiratory protection used to reduce the concentration of airborne asbestos fibers in the respirator below the permissible exposure limits when the ceiling or the 8-hour TWA concentrations are reasonably expected to exceed 10 times but not 100 times those limits, shall be a full-face piece powered air-purifying respirator, or a powered air-purifying respirator.	Results of the survey will define the type of respiratory protection required.
c. The minimum respiratory protection required to reduce the concentrations of airborne asbestos fibers below the permissible exposure limits when the ceiling or the 8-hour TAW concentrations of asbestos fibers are reasonably expected to exceed 100 times those limits, shall be a type "C" continuous flow or pressure-demand, supplied-air respirator.	
11. Employer shall establish a respirator program in accordance with the American National Standard Practice for Respiratory Protection Z88.2-1969. This code sets up a program requiring written standard operating procedures, instruction of users, practices on cleaning, disinfecting, and storing of respirators, and procedures for inspection and maintaining effectiveness of the program. Where respiratory protection is going to be used, each employe should test his respirator before each use. Two principal tests are:	

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a. Positive Pressure Test Close the exhalation valve, exhale gently, and see if the face piece maintains a slight positive pressure. b. Negative Pressure Test Close off the inlet opening, inhale gently, and see if the face piece collapses and remains collapsed for ten seconds.	Contractors must establish and maintain the respirator program. This will be accomplished after the type of respiratory protection is defined.
12. All asbestos cement, mortar, coatings, grout, and plaster must be mixed in closed bags or other containers. Asbestos waste and scrap must be disposed in sealed bags or other containers. All clean-up must be done by vacuum cleaners, not by dry sweeping or blowing.	Asbestos scrap and dust collector contents are disposed in sealed plastic bags. Clean-up of the fabrication shop is by vacuum cleaner.
13. Caution signs and labels shall be used in all areas where allowable concentration can be exceeded. The regulation prescribes the size of signs and labels and information to go on the signs and labels.	Caution signs have been installed in accordance with the standard.
14. Monitoring for exposure to asbestos must be done at least every six months. Employes are allowed to observe the monitoring and shall have access to the records. The compliance date is 12/7/72.	The current survey fulfills the requirement for monitoring, however, the compliance date of 12/7/72 was not met.

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15. Medical examinations are required at the beginning and the end of employment involving exposure to asbestos, in addition to annual examinations. Examinations include chest x-rays and pulmonary function studies. Records must be maintained for twenty years and will be available to the Secretary of Labor and/or HEW or designated representatives and physicians of employes.	Medical examinations of contractor employes is the responsibility of the contractor. The survey will determine if medical exams are required for Monsanto employees.
16. Laundering of asbestos contaminated clothing must be done so as to prevent exposure in excess of the TLV. The laundry company must be warned of the presence of asbestos dust. The asbestos contaminated clothing must be handled in a sealed impermeable bag properly labelled.	Coveralls are sent to the laundry in sealed plastic bags which are properly labelled. The laundry has received written instructions on dumpting the bags while submerged in water to avoid a dust problem.
17. The employer shall provide change rooms for workers exposed to asbestos dust. Contamination of the employees street clothes must be avoided such as by separate lockers.	Change rooms are provided. Coveralls are returned to the tool room after use.

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