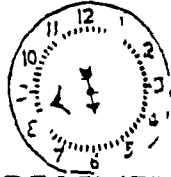


JUN 25 73 AM



Inter Office

RECEIVED
D. R. VEAZEY

General Services

June 19, 1973

Mr. D. R. Veazey

cc D. L. Block
E. E. Crabtree
F. J. Dery
R. U. Obringer
P. E. Toth

Subject: Asbestos

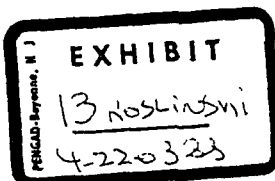
As you are aware we engaged our Industrial Hygiene Section to conduct several environmental tests at Arizona Proving Ground, and Mr. Henry Lick of that Section performed the necessary sampling and tests during the week of April 23, 1973. Included in the testing were samples of airborne asbestos dust generated while cleaning truck brake linings and assemblies.

We have received a written report of the laboratory analysis which relates that although the maximum allowable 5 fibres per cubic centimeter was not exceeded on a time-weighted average, there was an instance during the test where the "peak" maximum of 10 fibres per cubic centimeter was exceeded.

Paragraph 1910.93a of the OSHA law concerning asbestos (copy attached) states that the employee shall be notified in writing if he is exposed to a concentration of asbestos that exceeds the peak level. It is requested that the employee, Peter Wasilewski, one of your Driver-Mechanics, be personally notified by using the attached Notification Card. After the employee has been notified, one copy should be placed in his Medical Record and the original returned to this office.

Concurrent with employee notification it is required that all cleaning and "dusting" of brakes and components by compressed air be discontinued and prohibited.

Future dust removal from brake assemblies is to be done by use of a "shop" vacuum available from Sears Roebuck and Company, Craftsman 45-gallon Heavy-duty Industrial Vac with dolly and nozzle, Part No. 99KT 1783LN. Accessory set, Part No. 9KT 16973, must be provided to afford proper and efficient removal of dusts. The entire cost is slightly less than \$100.00. This unit has been thoroughly checked for effectiveness and is approved for vacuuming of asbestos by Industrial Hygiene Section and General Services Safety Activity. The attached procedure must be followed when the unit is emptied and contents discarded.



007021

S-FORD-345

PRODUCED BY FORD

SCF-FORD-1079

D. R. Veazey

-2-

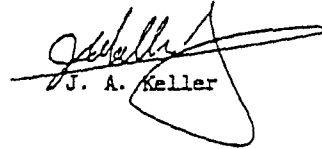
June 19, 1973

Should it become necessary to "dust" or clean brakes prior to receipt of the vacuum unit, each employe so involved must wear an approved dust respirator regardless of length of exposure to asbestos dust. Minnesota Mining and Manufacturing respirator, Model 8710, should be used for this purpose.

Your attention is directed to OSHA Paragraph 1910.93a (j) 1 through 6 of the attached Regulations concerning Medical Examinations and Records. When full compliance with this paragraph has been met, as discussed by us in a recent telephone conversation, please advise this office.

Another review of exposure to asbestos at APG will be made within six months and annually thereafter.

If there are any questions you may have, or if we can be of any further assistance, please contact us.


J. A. Keller

Attachments

007022

SAFE OPERATING PROCEDURE
FOR
EMPTYING AND DISPOSAL OF ASBESTOS CONTENTS
FROM INDUSTRIAL VACUUM UNITS

When it becomes necessary to empty the asbestos-laden contents of an Industrial Vacuum Unit the following procedure shall be maintained.

1. Approved dust respirators are to be worn by all persons engaged in emptying and disposal of materials from the shop vacuum unit. An approved respirator is Model No. 8710 available from 3M Company.

2. Contents of the vacuum drum must be washed out by flushing with water and allowing slurry to flow through the drain hole at base of unit.

3. Paper bag and cloth filter bags must be handled with extreme care in order to keep dust to a minimum.

4. Bags and asbestos-laden materials and waste must be placed in sealed impermeable bags or other closed impermeable containers for disposal.

5. All disposal containers must be clearly and legibly labelled
Caution - Contains Asbestos Fibres - Avoid Creating Dust -
Breathing Asbestos Dust May Cause Serious Bodily Harm

A copy of this procedure is to be affixed to each shop vacuum unit used in asbestos work, and to be maintained in a legible condition.)

PREPARED BY THE GENERAL SERVICES
SAFETY ACTIVITY. ANY CHANGES OR
MODIFICATIONS MUST RECEIVE THE
APPROVAL OF THAT ACTIVITY.

June 1973

2089

Standard Procedure for Control of Asbestos Fiber From - Pipe Covering and Insulation Operation and Vehicle Brake Rebuilding.

The Federal Department of Labor under the authority of the Occupational Safety and Health Act of 1970, has promulgated specific standards for the use of asbestos. These standards are published in the Federal Register of October 10, 1972, pages 22142 - 22144, Section 1910.93a "Asbestos". Certain pipecovering and insulation materials are made of asbestos or asbestos laden materials, and most brake linings and friction materials are of asbestos composition.

Where it is determined that asbestos is part of existing plant insulation or asbestos laden materials are used in new insulating operations, the following procedures shall be observed:

1. Wherever possible, materials shall be substituted for asbestos in pipe covering and insulation operations. When existing asbestos materials are removed, every attempt shall be made to replace them with non-asbestos materials. Examples of substitute materials are kaolin, calcium silicate, and fiberglass.

Failing substitution, the following is recommended:

2. Whenever possible, asbestos materials shall be handled wet.

3. All power tools used to cut, form, or drill asbestos materials shall be locally exhausted if these tools may generate excessive dust concentrations.

4. Single use respirators under U.S. Bureau of Mines approval 21c or re-usable respirators approved for pneumoconiosis producing dust under Schedule 21 shall be used when handling dry asbestos material if dust is not controlled by other methods. Respirators approved by the National Institute of Occupational Safety and Health (NIOSH) for pneumoconiosis producing dusts are also acceptable.

5. Special coveralls must be provided, and at any fixed location of employment change rooms and two lockers, one for street clothes and one for work clothes shall also be provided. These coveralls shall be labeled as to the asbestos hazard and the laundry informed that they may be contaminated with asbestos fiber.

6. Areas where asbestos operations are taking place shall be cordoned off and warning signs posted per subparagraph g OSHA Sect. 1910.93a, pgs. 22143 - 22144.

7. When demolition of existing asbestos insulation is being done in confined areas, the Ford/Philco-Ford industrial hygienist shall be notified to specify necessary dust control measures.

8. Clean-up of waste material shall be done by employees included in the medical evaluation program. Clean-up shall be done by vacuum cleaners with high efficiency filters or with wet methods of dust control.

9. Disposal of asbestos waste material shall be in sealed containers labeled per subparagraph g and h, OSHA 1910.93a pages 22143 - 22144.

10. Employees designated to work with asbestos shall be given a pre-employment, annual, and termination medical examination consisting of posterior - anterior 14x17 in. chest roentgenogram and pulmonary function tests to include forced vital capacity PVC and forced expiratory volume at 1 second FEV₁.

Where vehicle brake or friction clutch rebuilding is done the following procedures shall be observed:

1. Vehicle brakes, brake drums, and friction clutch components shall be cleaned using an industrial type vacuum cleaner with high efficiency filters. Under no circumstances shall compressed air be used to clean brake and clutch assemblies.

2. Disposal of asbestos laden dust from the vacuum shall be done by wet methods of dust suppression or the employee performing the operation shall use a respirator specified by the U.S. Bureau of Mines for pneumoconiosis producing dust under approval 21c Schedule 21. Respirators approved by the National Institute for Occupational Safety and Health (NIOSH) for pneumoconiosis producing dust are also acceptable.

3. Disposal of asbestos laden waste from vacuum cleaners shall be in sealed containers labeled per subparagraph g and h, Federal Register, October 18, 1974, 1910.93a, pages 22143 and 22144 (OSHA).

PROHIBITED FOR FRONT

This is to notify that air samples collected
in your work area have shown concentrations
in excess of established safe limits. You
have been advised of these results by the Company
to reduce the danger.

D. E. Weazo, Manager
Arizona Proving Ground

Date _____

RULES AND REGULATIONS

Legend	Notation
Asbestos	1" Sans Serif Gothic or Block
Dust Hazard	1/2" Sans Serif Gothic or Block
Avoid Breathing Dust	1/4" Gothic
Wear Assigned Protective Equipment	1/4" Gothic
Do Not Remain in Area Unless Your Work Requires It	1/4" Gothic
Breathing Asbestos Dust May Be Hazardous To Your Health	14 point Gothic

Spacing between lines shall be at least equal to the height of the upper of any two lines.

(2) **Caution labels.** (i) **Labeling.** Caution labels shall be affixed to all raw materials, mixtures, scrap, waste, debris, and other products containing asbestos fibers, or to their containers, except that no label is required for asbestos fibers have been modified by a bonding agent, coating, or other material so that during any reasonably foreseeable use, handling, storage, disposal, processing, or transportation, no airborne concentrations of asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section will be released.

(ii) **Label specifications.** The caution labels required by subdivision (i) of this subparagraph shall be printed in letters of sufficient size and contrast as to be readily visible and legible. The label shall state:

CAUTION
Contains Asbestos Fibers
Avoid Creating Dust
Breathing Asbestos Dust May Cause Serious Bodily Harm

(b) **Housekeeping.** (1) **Cleaning.** All external surfaces in any place of employment shall be maintained free of accumulations of asbestos fibers if, with their dispersion, there would be an excessive concentration.

(2) **Waste disposal.** Asbestos scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing, consigned for disposal, which may produce in any reasonably foreseeable use, handling, storage, processing, disposal, or transportation airborne concentrations of asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section shall be collected and disposed of in sealed impermeable bags, or other closed, impermeable containers.

(3) **Recordkeeping.** (i) **Exposure records.** Every employer shall maintain records of any personal or environmental monitoring required by this section. Records shall be maintained for a period of at least 3 years and shall be made available upon request to the Assistant Secretary of Labor for Occupational Safety and Health, the Director of the National Institute for Occupational Safety and Health, and to authorized representatives of either.

(ii) **Employee access.** Every employee and former employee shall have reasonable access to any record required to be maintained by subparagraph (i) of this

paragraph, which indicates the employee's own exposure to asbestos fibers.

(3) **Employee notification.** Any employee found to have been exposed at any time to airborne concentrations of asbestos fibers in excess of the limits prescribed in paragraph (b) of this section shall be notified in writing of the exposure as soon as practicable but not later than 5 days of the finding. The employee shall also be notified of the corrective action being taken.

(i) **Medical examinations.** (1) **General.** The employer shall provide or make available to each of his employees, within 30 calendar days following his first employment in an occupation exposed to airborne concentrations of asbestos fibers, a comprehensive medical examination, which shall include, as a minimum, a chest roentgenogram (posterior-anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV₁).

(2) **Preplacement.** The employer shall provide or make available to each of his employees, within 30 calendar days following his first employment in an occupation exposed to airborne concentrations of asbestos fibers, a comprehensive medical examination, which shall include, as a minimum, a chest roentgenogram (posterior-anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV₁).

(3) **Annual examinations.** On or before January 31, 1973, and at least annually thereafter, every employer shall provide, or make available, comprehensive medical examinations to each of his employees engaged in occupations exposed to airborne concentrations of asbestos fibers. Such annual examination shall include, as a minimum, a chest roentgenogram (posterior-anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV₁).

(4) **Termination of employment.** The employer shall provide, or make available, within 30 calendar days before or after the termination of employment of any employee engaged in an occupation exposed to airborne concentrations of asbestos fibers, a comprehensive medical examination which shall include, as a minimum, a chest roentgenogram (posterior-anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV₁).

(5) **Recent examinations.** No medical examination is required of any employee, if adequate records show that the employee has been examined in accordance with this paragraph within the past 1-year period.

(6) **Medical records.** (i) **Maintenance.** Employers of employees examined pursuant to this paragraph shall cause to be maintained complete and accurate records of all such medical examinations. Records shall be retained by employers for at least 20 years.

(ii) **Access.** The contents of the records of the medical examinations required by this paragraph shall be made available, for inspection and copying,

to the Assistant Secretary of Labor for Occupational Safety and Health, the Director of NIOSH, to authorized physicians and medical consultants or either of them, and, upon the request of an employee or former employee to a physician. Any physician who conducts a medical examination required by the paragraph shall furnish to the employee of the examined employee all the information specifically required by the paragraph, and any other medical information related to occupational exposure to asbestos fibers.

§ 1910.94 Ventilation.

(a) **Abrasive blasting.** (1) **Definitions applicable to this paragraph.** Abrasive. A solid substance used in a abrasive blasting operation.

(ii) **Abrasive-blasting respirator.** continuous flow air-line respirator constructed so that it will cover the wearer's head, neck, and shoulders to protect him from rebounding abrasive.

(iii) **Blast cleaning barrel.** A complete enclosure which rotates on an axis, which has an internal moving tread which tumbles the parts in order to clean the surfaces of the parts to the action of an automatic blast spray.

(iv) **Blast cleaning room.** A complete enclosure in which blasting operations are performed and where the operator works inside of the room to operate a blasting nozzle and direct the flow of a abrasive material.

(v) **Blasting cabinet.** Any enclosure where the operator stands outside a opening, the blasting nozzle through opening or openings in the enclosure.

(vi) **Clean air.** Air of such purity that it will not cause harm or discomfort to individual if it is inhaled for extended periods of time.

(vii) **Dust collector.** A device or combination of devices for separating dust from the air handled by an exhaust ventilation system.

(viii) **Exhaust ventilation system.** system for removing contaminated air from space, comprising two or more of the following elements: (a) enclosure or hood, (b) duct work, (c) dust collecting equipment, (d) exhaust and discharge stack.

(ix) **Particulate-filter respirator.** air purifying respirator, commonly referred to as a dust or a fume respirator which removes most of the dust or fume from the air passing through the device.

(x) **Respirable dust.** Airborne dust sizes capable of passing through the per respiratory system to reach lower lung passages.

(xi) **Rotary blast cleaning table.** enclosure where the pieces to be cleaned are positioned on a rotating table and passed automatically through a series of blast sprays.

(xii) **Abrasive blasting.** The force application of an abrasive to a surface by pneumatic pressure, hydraulic pressure, or centrifugal force.

(2) **Dust hazards from abrasive blasting.** (i) **Abrasives** and the coatings on the materials blasted shattered and pulverized during blasting.