File

Inter Office

General Services

June 19, 1973

Mr. D. R. Veazey

cc D. L. Block
E. H. 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 employe shall be notified in writing if he is exposed to a concentration of asbestos that exceeds the peak level. It is requested that the employe, Peter Wasilewsky, one of your Driver-Mechanics, be personally notified by using the attached Notification Card. After the employe has been notified, one copy should be placed in his Medical Record and the original returned to this office.

Concurrent with employe 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 bottle, Part No. 99KT 17831N. 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.

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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 ARO 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

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 cleanly 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.

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Legend	Notation
Asbestos	1" Sans Serif. Gothic or Block.
Dust Hazard	¾" Sans Serif. Gothic or Block.
Avoid Breathing Dust	¼" Gothic.
Wear Assigned Protective Equipment.	¼" Gothic.
Do Not Remain In Area Unless Your Work Requires It.	¼" 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 where asbestos fibers have been modified by a bonding agent, coating, binder, 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

(h) *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 waste, 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.

(i) *Recordkeeping.*—(1) *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.

(2) *Employee access.* Every employee and former employee shall have reasonable access to any record required to be maintained by subparagraph (1) 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 timely notified of the corrective action being taken.

(j) *Medical examinations.*—(1) *General.* The employer shall provide or make available at his cost, medical examinations relative to exposure to asbestos required by this paragraph.

(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 ($FEV_{1.0}$).

(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 medical 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 ($FEV_{1.0}$).

(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 ($FEV_{1.0}$).

(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 of either of them, and, upon the request of an employee or former employee, to his physician. Any physician who conducts a medical examination required by this paragraph shall furnish to the employer of the examined employee all the information specifically required by this 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.*—(i) *Abrasive.* A solid substance used in an abrasive blasting operation.

(ii) *Abrasive-blasting respirator.* A 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, or which has an internal moving tread to tumble the parts, in order to expose various 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 the blasting nozzle and direct the flow of the abrasive material.

(v) *Blasting cabinet.* An enclosure where the operator stands outside and operates the blasting nozzle through an opening or openings in the enclosure.

(vi) *Clean air.* Air of such purity that it will not cause harm or discomfort to an 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.* A system for removing contaminated air from a space, comprising two or more of the following elements (a) enclosure or hood, (b) duct work, (c) dust collecting equipment, (d) exhaust fan, and (e) discharge stack.

(ix) *Particulate-filter respirator.* An 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 in sizes capable of passing through the upper respiratory system to reach the lower lung passages.

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

(xii) *Abrasive blasting.* The forcible 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 surface coatings on the materials blasted are shattered and pulverized during blasting