CENTRAL RESEARCH AND DEVELOPMENT DEPARTMENT
HASKELL LABORATORY FOR TOXICOLOGY
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M E M O R A N D U M

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TO: MARTHA MC LAUGHLIN

FROM: WILLIAM E. MC ENROE WEM

HASKELL ASBESTOS CONTROL PROGRAM

Attached is the rewrite of the Asbestos Control Program for Haskell Laboratory. The program was rewritten based on comments received from the Occupational Health Subcommittee and R. W. Fehnel. Please inform me if I can be of further assistance in this matter.

WEM/dar
Attachment

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SC-DP-06895

ASBESTOS CONTROL PROGRAM

I. GENERAL

1. This program outlines the proper procedures for controlling asbestos exposure in the workplace. All pertinent provisions of Du Pont Engineering Standard S4T which covers the measurement and control of asbestos dust exposure, are part of this procedure.

2. The Haskell Industrial Hygiene Consultant must review and approve all operations involving installation, repair and/or dismantling of asbestos materials which are not specificly covered in this program.

3. Personnel involved in asbestos work must become familiar with this program.

4. Personnel are not allowed to eat or smoke in an asbestos area, nor bring food or cigarettes into the area.

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II. SOURCES OF EXPOSURE

Potential sources of exposure to airborne asbestos at Haskell include:

- Removal of asbestos insulation from pipe lines and hot water tanks.
- Cutting asbestos cement (transite) siding, roofing, pipe, etc.
- Repair of laboratory equipment with asbestos insulated heaters (e.g., gas chromatographs, lab ovens).
- Maintenance and repair of vehicle brake linings.

III. EXPOSURE LIMITS

As required by the Federal OSHA Standard on Asbestos (29 CFR 1910.1001) employee exposure to asbestos dust shall not exceed:

- A time-weighted average concentration (2-hour TWA) of 2 fibers/cubic centimeter of air for 8 hours continuous sampling (fiber length 5 microns), or
- A ceiling level of 10 fibers/cubic centimeter of air (longer than 5 microns) at any time.

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Annual medical examinations are required of all personnel who have had or have the potential of an asbestos exposure greater than 0.1 fibers/cubic centimeter of air (fiber longer than 5 microns). Personal monitoring done by the Industrial Hygiene Section will determine job exposure levels.

IV. CONTROL OF ASBESTOS DUST

Adherence to the following procedures is necessary to prevent airborne asbestos exposure.

A. Working on Research Materials Which Contain Asbestos

1. The Process Hazards Review Committee will be consulted on the use of asbestos in research projects and establish a specific procedure for its safe use.

2. Technical personnel will ascertain if special materials used in fabricating or installing research equipment contain asbestos. They will inform the Haskell Industrial Hygiene Consultant and the Maintenance Supervisor so that appropriate handling procedures will be followed.

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B. Installing or Processing Asbestos Materials

1. Asbestos containing sheet materials having sealed surfaces such as transite, laboratory bench tops, etc., that require no "processing" (sawing, drilling, etc.) may be installed or removed without special procedures.

2. Good industrial hygiene practices must be used when working with asbestos materials that require processing. The following procedures are established for occasional drilling or sawing of laboratory bench tops and transite which are asbestos materials.

   o Drilling
     - place wet sponge over area to be drilled
     - drill through the sponge
     - dispose of sponge as asbestos contaminated material

   o Sawing
     - wet down area to be sawed
     - place nozzle of Hepa-filter vacuum cleaner at face of saw
     - vacuum while sawing
     - if the vacuum cannot be used to capture asbestos fibers, personal protection equipment is required

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3. All other installing or processing of materials containing asbestos must be reviewed by the Haskell Industrial Hygiene Consultant.

C. Insulation Removal

Except for minor repair or removal work, the Haskell Industrial Hygiene Consultant shall be notified prior to removal of any thermal insulating material suspected of containing asbestos. An industrial hygienist will collect a representative sample of the material and have it analyzed for asbestos prior to the dismantling operation. During the removal operations the industrial hygienist will collect the required air samples and arrange for their analysis. The OSHA regulation for asbestos requires that asbestos be handled in a wet state, insofar as practical, to prevent emission of airborne fibers in excess of the standard.

The following procedures must be followed for the removal of asbestos containing insulation from piping or equipment to protect the health of the worker.

- o Wear personal protective equipment as outlined in Section VI.

- o Rope off area and post proper signs (Figure 1). Be sure contamination is contained within the area.

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- o Limit access to authorized personnel with proper protective clothing.

- o Wet down all insulation with water after removing any covering or vapor barrier (i.e., aluminum, tar, paper, etc).

- o Avoid sawing; knife cutting is preferred.

- o Remove all asbestos insulation from pipe or equipment.

- o Wipe off asbestos fiber remaining on exposed pipe with a wet cloth.

- o Place insulation and cloth in plastic bags and seal securely prior to disposal.

- o Thoroughly decontaminate dismantled insulated pipe by vacuuming with a HEPA-filter vacuum cleaner and by wiping with a wet cloth. Or wrap sections of the pipe in plastic sheeting and tape securely for disposal.

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V. CLEANUP AND DISPOSAL OF ASBESTOS FIBERS

1. Accumulation of asbestos fibers on the floor and other surfaces should be prevented. Vacuum frequently, using a HEPA-filter vacuum cleaner. The paper bags are fragile. Do not vacuum up pieces of metal that may damage the filters and bags.

2. Asbestos contaminated materials such as sections of pipe and equipment, can be decontaminated by vacuuming with a HEPA filter vacuum and by wiping with a wet cloth. Special disposal is not required for decontaminated materials. The used cloths and vacuum bags should be disposed as contaminated materials.

3. All asbestos insulation and asbestos contaminated materials should be placed in plastic bags and sealed securely for disposal.

4. Fasten asbestos caution labels (Figure 2) to all containers of asbestos to be disposed. The label shall state: "Caution - Contains Asbestos Fibers. Avoid Creating Dust. Breathing Asbestos Dust May Cause Serious Bodily Harm." Mark clearly for special disposal and consult Site Services Manager for disposal instructions.

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VI. PERSONAL PROTECTIVE EQUIPMENT

For removal of asbestos insulation, the following personal protective equipment must be worn:

- Respirators. Contact Haskell Respirator Program Administrator for proper selection and fit.

- Disposable Tyvek® suit with hood and shoe coverings.

- Disposable gloves.

- All personal protective equipment should be removed prior to breaks and lunch. Before removal, all equipment should be thoroughly vacuumed to remove asbestos fiber contamination.

- At the end of the job or shift all suits and gloves should be thoroughly vacuumed prior to disposal as decontaminated articles.

WEM:vlm
4/30/81

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(Sign specifications - Drawing not to scale)

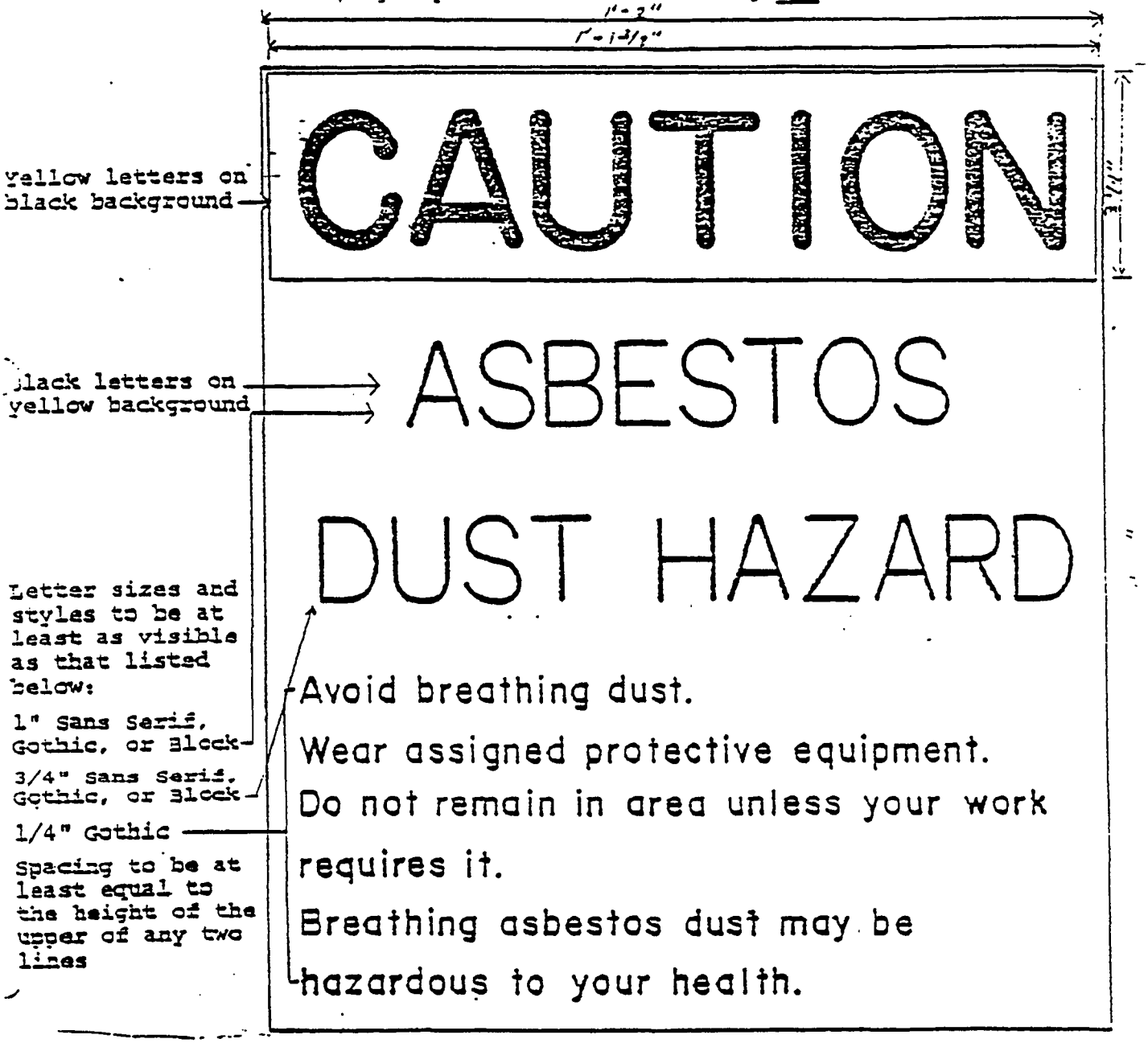

FIGURE I

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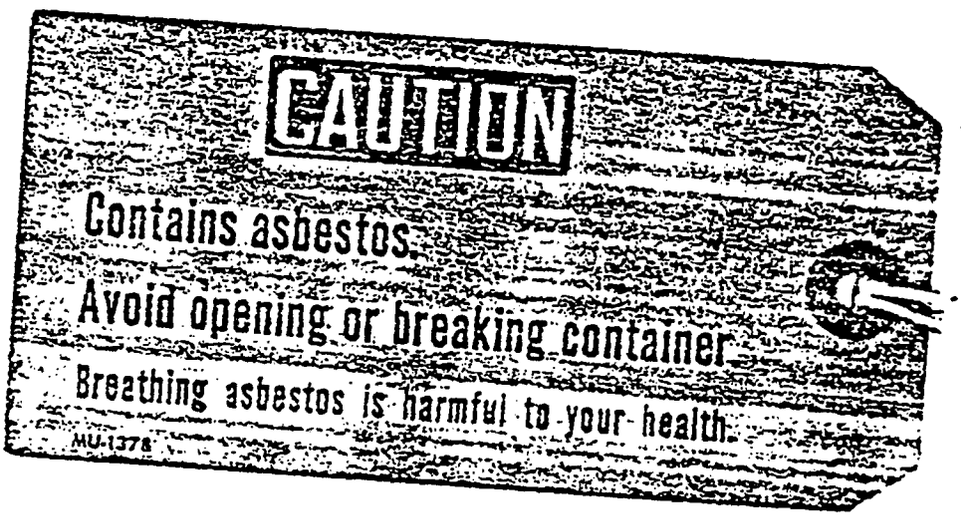
CAUTION
Contains asbestos.
Avoid opening or breaking container.
Breathing asbestos is harmful to your health.
MU-1378

FIGURE 2