PLAINTIFF'S EXHIBIT

DOW-1068

ST0036369

INDUSTRIAL HYGIENE
INDEX TO ANALYTICAL METHODS

VOLUME 4

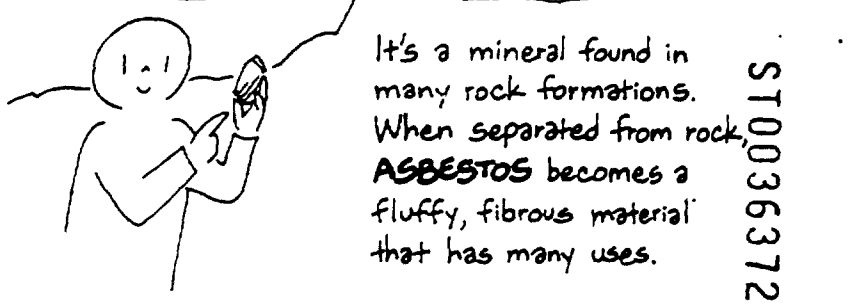
JANUARY 1978

RESTRICTED TO DOW USE ONLY

CAUTION: ASBESTOS DUST...

ST0036371

What is ASBESTOS ?



It's a mineral found in many rock formations. When separated from rock, **ASBESTOS** becomes a fluffy, fibrous material that has many uses.

ST0036372

3 most common TYPES of asbestos...

CHRYSOTILE

90% of all asbestos processed. Resists heat but not acid. Can be easily spun into asbestos cloth.



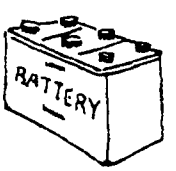
AMOSITE

Acid and heat-resistant. Used in bulk form for heat insulation and molded into pipe insulation.



CROCIDOLITE

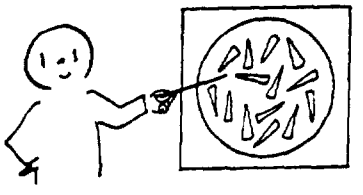
Poor heat insulation, but highly resistant to acid. Used to make acid-resistant cement pipe and in electric battery cases.



A GRAPHIC BOOKLET by CHARMING L. BETZ CO., INC., Greenfield, Mass., U.S.A.
© 1972
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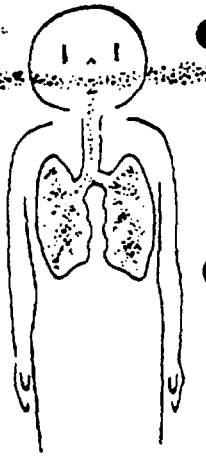
How can asbestos be a HEALTH HAZARD ?

If air containing asbestos dust is inhaled, the small, sharp fibers may work their way into the lung tissue and remain imbedded for life...a constant source of irritation.



Asbestos bodies (fibers covered with protein) as they appear in the lungs

The danger **VARIES** depending upon...



1 INTENSITY OF ASBESTOS DUST

(number of asbestos fibers in the air within a given space)

2 INDIVIDUAL SUSCEPTIBILITY

Some people are more likely to develop asbestos-related diseases than others.

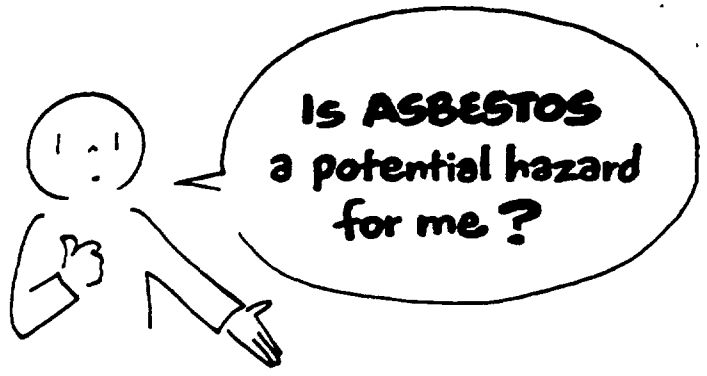
3 FIBER SIZE and variety

Very fine, short fibers are most highly cancer-causing.

4 PRESENCE OF OTHER POLLUTANTS

– such as cigarette smoke can increase the risk of disease.

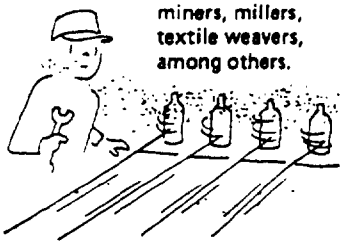
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If you work with or around asbestos -- it is!

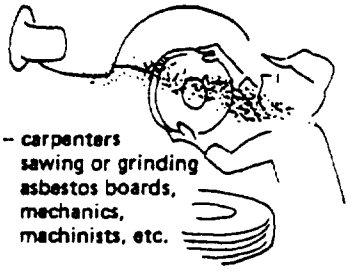
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PRODUCTION WORKERS



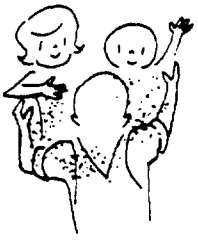
-- insulation workers, miners, millers, textile weavers, among others.

MAINTENANCE WORKERS



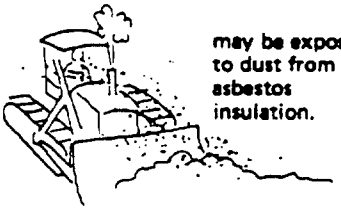
-- carpenters sawing or grinding asbestos boards, mechanics, machinists, etc.

FAMILY AND FRIENDS of asbestos workers



may be exposed to dust carried home on work clothing.

DEMOLITION WORKERS



may be exposed to dust from asbestos insulation.

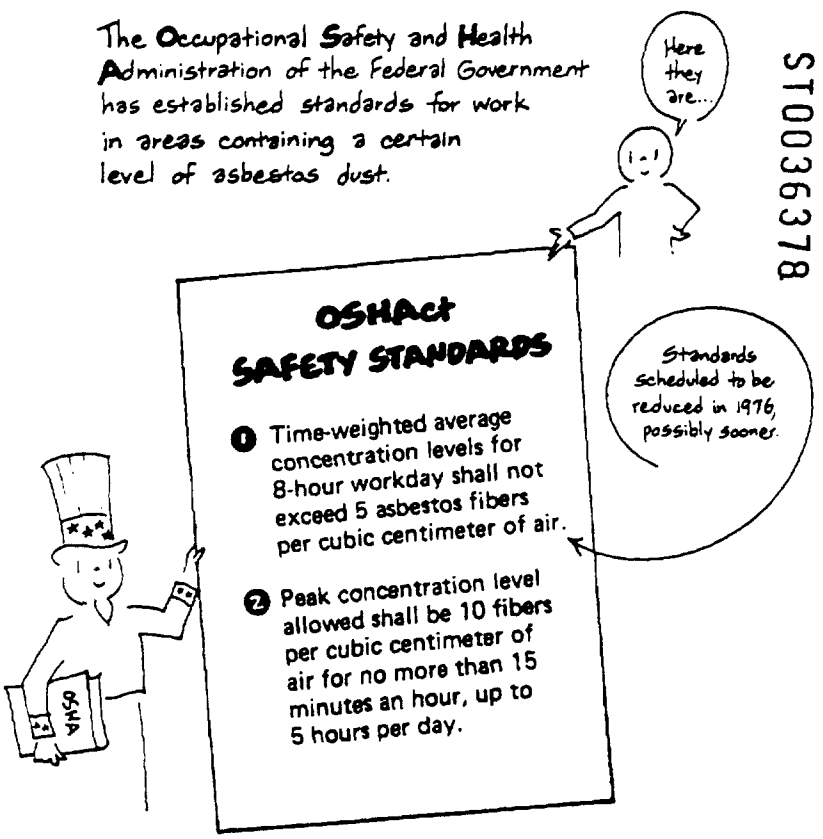
How EXPOSURE c

Steps we can take for protec

First...

KNOW the OSHAct SAFETY STANDARDS

The Occupational Safety and Health Administration of the Federal Government has established standards for work in areas containing a certain level of asbestos dust.



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an be CONTROLLED

ction against asbestos dust

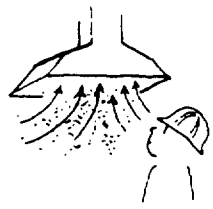
Then...

WORK TO MEET THESE STANDARDS

via...

❶ NEW ENGINEERING METHODS

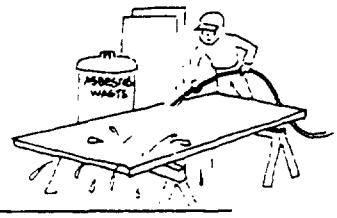
. . . to prevent the escape and spread of floating dust. Dust-producing operations can be isolated. Tools can be fitted with exhaust ventilation and dust control systems.



❷ BETTER WORK PRACTICES

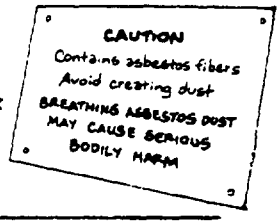
Asbestos can be wet down before handling to prevent airborne fibers.

Asbestos waste and debris can be sealed in impermeable bags and containers.



❸ CAUTION SIGNS AND LABELING

All products containing asbestos fibers not permanently bonded or contained must be labelled visually and legibly, i.e.,



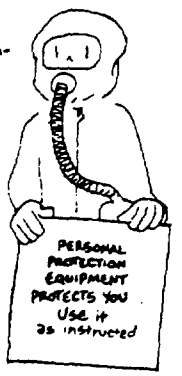
MORE...

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④ PERSONAL SAFETY EQUIPMENT

When handling asbestos and materials or equipment containing asbestos, PERSONAL PROTECTIVE EQUIPMENT could be the only way to protect you.

SPECIAL CLOTHING... either fabric or resin-coated paper. Includes full suits, coveralls, head covering, gloves, foot covering.



RESPIRATORS (3 basic types)

A. FILTER-TYPE AIR PURIFYING RESPIRATORS
For use when dust level may exceed recommended peak.

B. POWERED AIR-PURIFYING RESPIRATORS
Used when average contamination is between 10 - 100 times peak level.

C. TYPE "C" SUPPLIED-AIR RESPIRATORS
Used when concentration may be more than 100 times recommended levels.

---

⑤ ON-THE-JOB "HOUSEKEEPING"

Clean-up is important at the end of work periods (breaks, lunch, workday). You will be covered with tiny asbestos fibers. Do <u>not</u> shake or blow dust off.



Vacuum your garments before removal and place them in a designated container. Use special changing rooms to change clothes.

ST0036381

⑥ MEDICAL SURVEILLANCE

Proper medical surveillance can show whether employees are receiving adequate protection from the dangers of asbestos.

Surveillance includes...

PHYSICAL EXAM and TESTING

. . . on a regular basis. Annual check-ups for everyone; more frequent attention recommended for those with heart and lung trouble or those who are exposed to levels in excess of 2 fibers per cc.



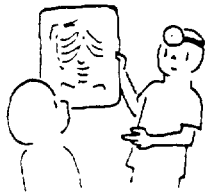
MEDICAL HISTORY RECORDS

Medical history of each employee working with asbestos should be carefully kept. Includes history of exposure to asbestos and other contaminants.



MEDICAL ADVICE

Employees should be informed when dangerous signs appear on tests, or when any job-related problems threaten health.



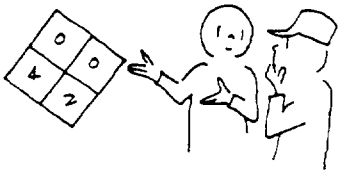
POSITIVE FINDINGS of medical surveillance can result in new job placement, shift rotation, improved work practices, other measures.



SAFETY ON THE JOB IS



1 KNOW the hazards of your job. Is your exposure direct or indirect? High or low levels? Are there recommended controls?



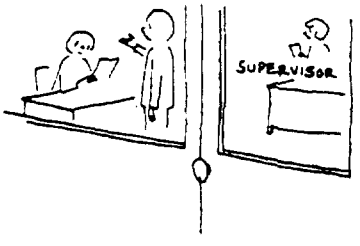
2 WEAR and maintain your Personal Protection Equipment.



3 PRACTICE good on-the-job housekeeping. Use vacuums and dust-collecting equipment.



4 REPORT hazardous conditions – i.e., unusually high dust levels, need for equipment – to supervisor.



5 CONSIDER your health at all times. Don't work with asbestos if you have lung disease, or any symptoms of asbestosis.

Know the symptoms of cancer and asbestosis.
DON'T SMOKE.



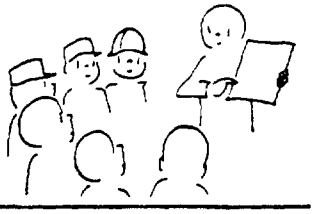
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EVERYBODY'S BUSINESS

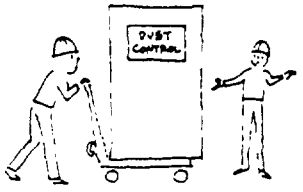
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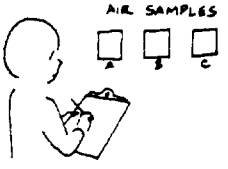
1 ADVISE employees of the dangers of exposure and the necessity of caution and awareness.



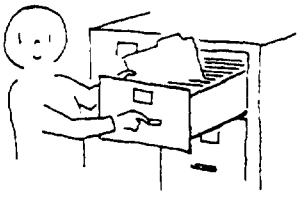
2 SUPPLY modern engineering equipment to provide the healthiest possible working environment.



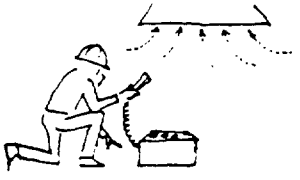
3 MONITOR asbestos dust levels. A sampling of air in work areas should be taken every 6 months.



4 KEEP medical records of each worker exposed to asbestos dust. Also provide regular physical check-ups.



5 TAKE all other necessary precautions to prevent unexpected exposure. Provide for routine testing of ventilation controls.





SO

SOoo...

WE CAN REDUCE THE HAZARDS OF ASBESTOS

if everyone does his part...

GOVERNMENT'S JOB

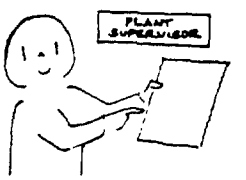


SET SAFETY STANDARDS for proper work conditions.

ENFORCE the standards via periodic inspection.

UPDATE STANDARDS ...as necessary

MANAGEMENT'S JOB



RESEARCH new ways to control asbestos.

PROVIDE safety-equipped work space and facilities

INSTRUCT employees about dangers, methods of protection.

ST0036384

WHAT ?

ST0036385

YOUR JOB IS
TO KNOW HOW TO PROTECT
YOURSELF ON THE JOB!

Learn...

- ✓ What asbestos-containing materials are in use at your workplace.
- ✓ How these materials can be worked.
- ✓ How to maintain control equipment.
- ✓ What other precautions you should take to be safe.

After all...

IT'S YOUR HEALTH & SAFETY
and nothing is more
IMPORTANT!

