

# **ASBESTOS HAZARD TRAINING**

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**PRESENTED BY**

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**MASC Safety Technician**

**Our building does not have asbestos  
so why do we need this training?**

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## **EHB 15 states:**

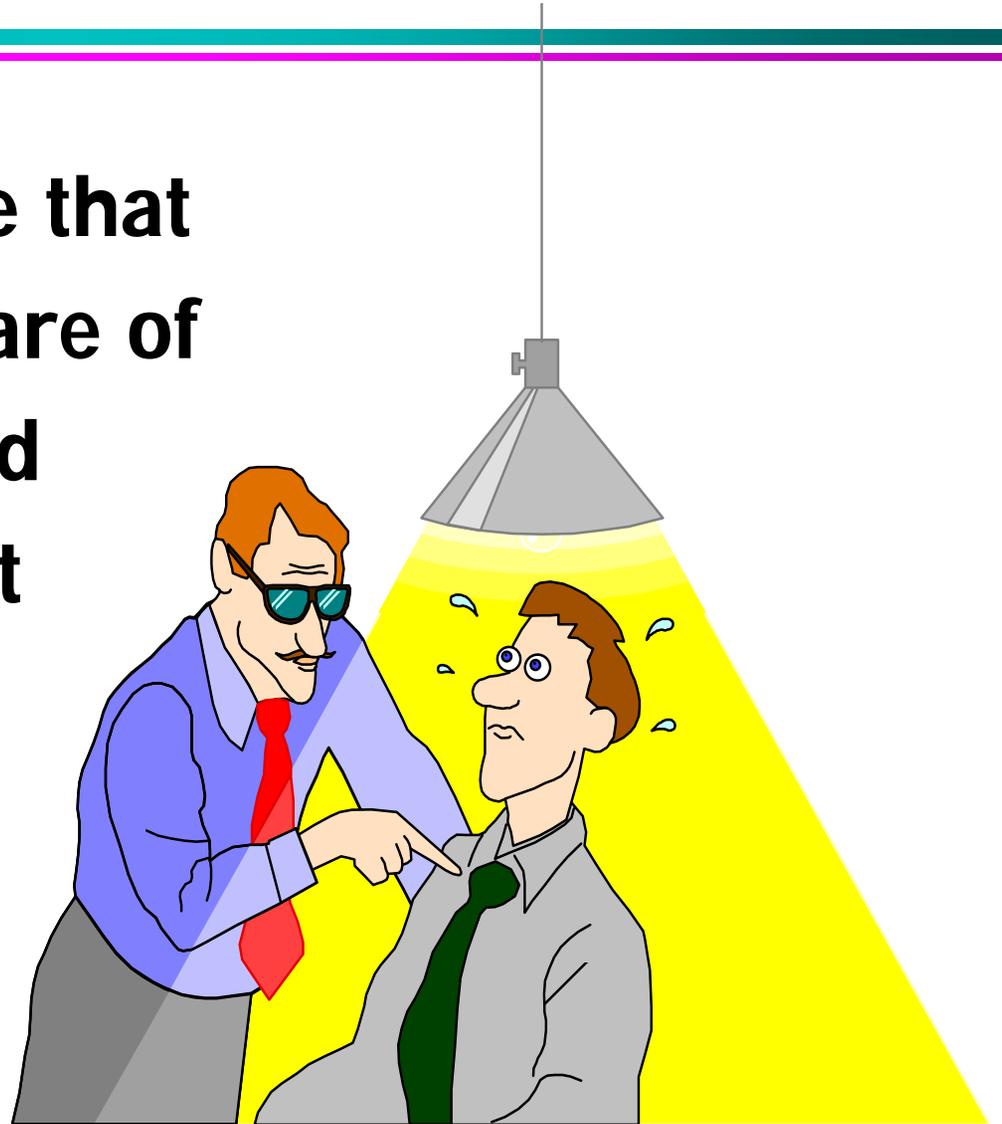
This procedure applies to all facilities, **work locations**, and employees where asbestos or asbestos-containing materials are known or assumed to be present.

**Employees may travel to other locations where asbestos may be present.**

# Private Contractor Work

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**Facility shall ensure that contractors are aware of potential hazard and shall maintain strict compliance with 29 CFR 1926.1101 Asbestos Standard.**

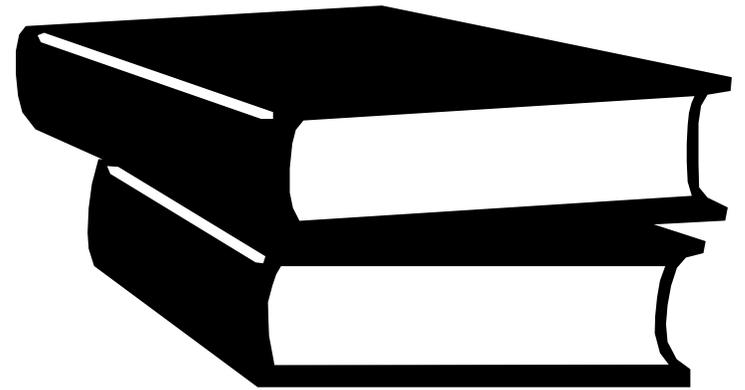


# REFERENCES

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**29 CFR 1910.1001**  
**29 CRR 1926.1101**

**DOC OSH MANUAL**  
**Chapter 13**

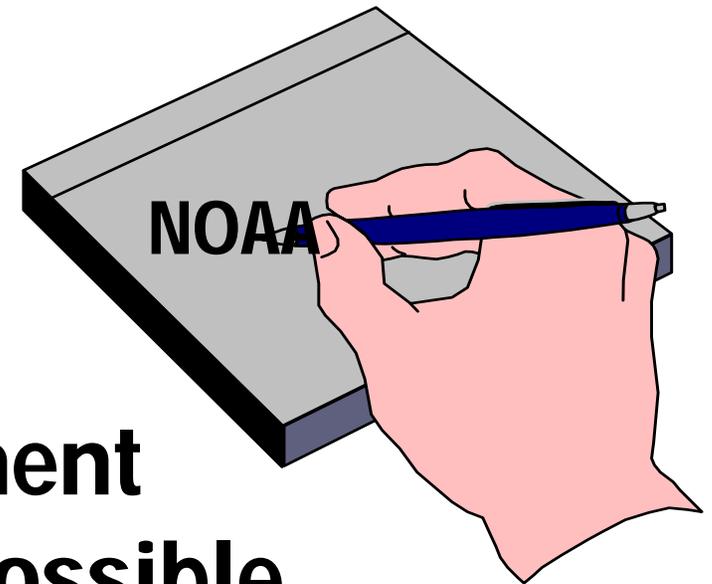


# ASBESTOS POLICY

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**The substitution of asbestos with non-asbestos materials.**

**The use of engineering, administrative controls & personal protective equipment where substitution is not possible.**



# WHAT IS ASBESTOS?

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**Widely used, mineral based material**

**Resistant to heat & corrosive chemicals**

**Fibers may range from coarse to silky**

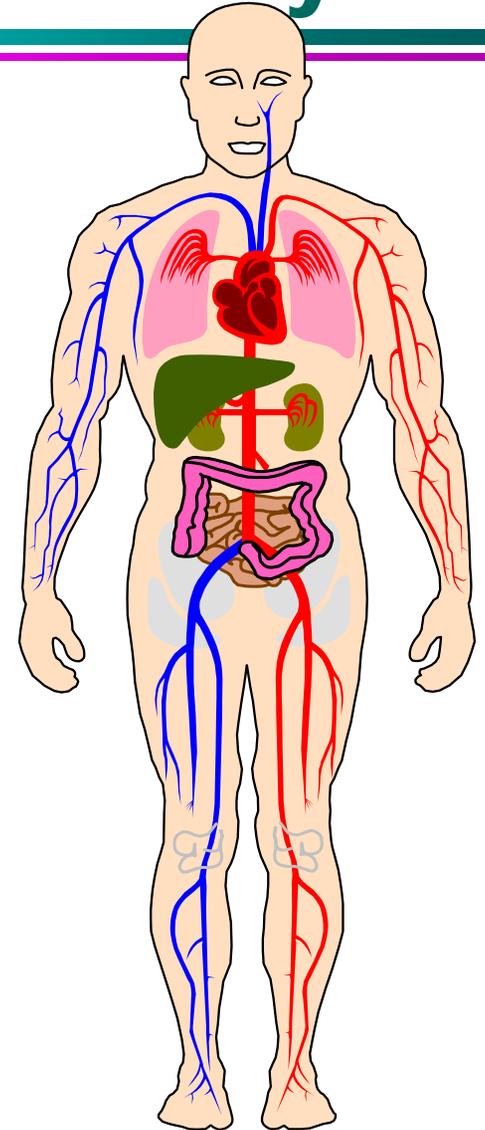


# How Asbestos Enters The Body

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- By **INHALATION**
- By **INGESTION**

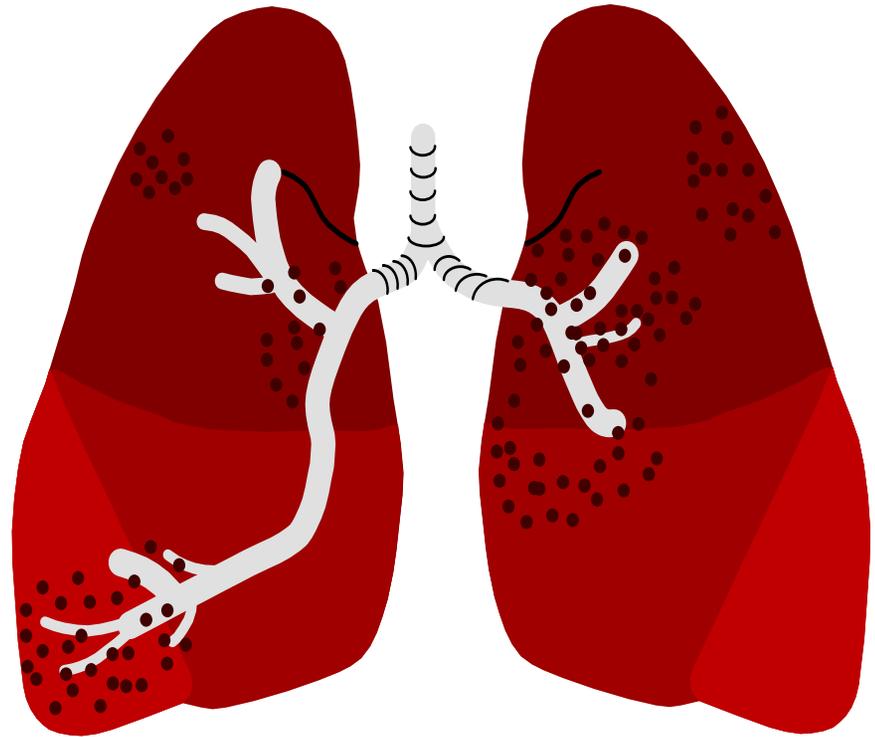
**In the body, asbestos fibers can become embedded in the tissues of the respiratory tract or the digestive system. There have been cases of 20-40 years of latency before malignancy appears. 3 distinct diseases can be caused by inhalation or ingestion. They are:**



# MESOTHELIOMA

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**A rare malignant tumor of the lung membrane which lines the chest and abdominal cavity.**



# ASBESTOSIS

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**A progressively restrictive fibrosis of the lung and is recognized as a disabling and fatal occupational disease.**

**Definition:**

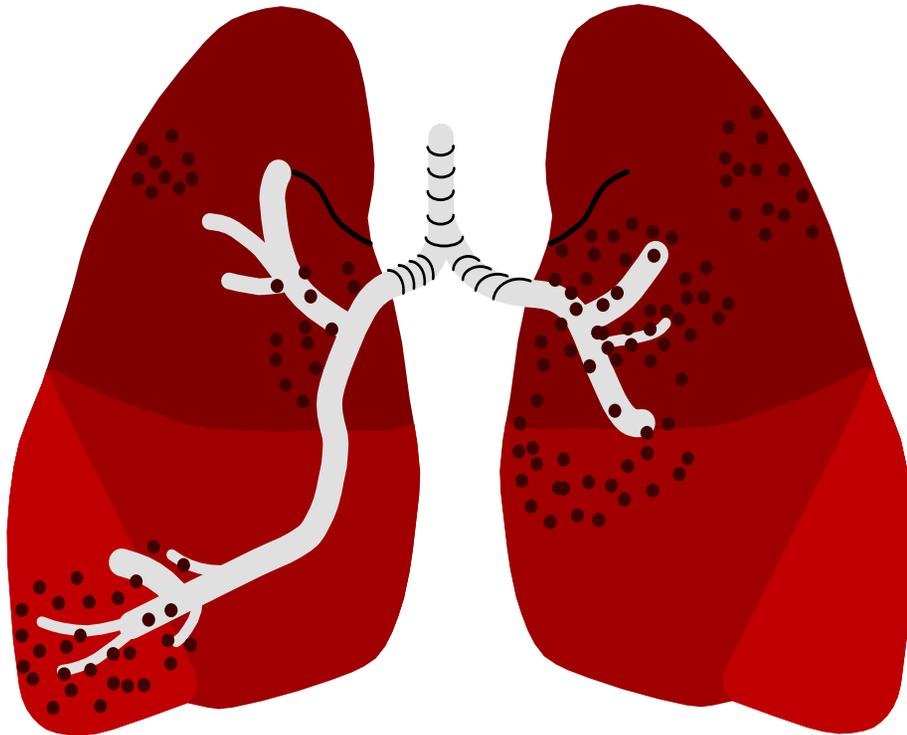
**FIBROSIS - A condition marked by the increase of connective, fibrous tissue.**



# BRONCHIAL LUNG CANCER

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**Malignant tumor of the bronchial tubes, this disease is more common than the previous two.**



# Health Hazards of Asbestos and Tobacco

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**Asbestos workers who smoke have a 50 times greater chance of getting lung cancer than those who do not smoke.**



# Exposure Limits

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## Permissible Exposure Limit (PEL)

0.1 Fibers per cubic centimeter of air calculated as an 8 hour time weighted average (TWA) exposure.

## Excursion Limit (EL)

1 Fiber per cubic centimeter averaged over a 30 minute sampling period.



# Exceeding Exposure Limits

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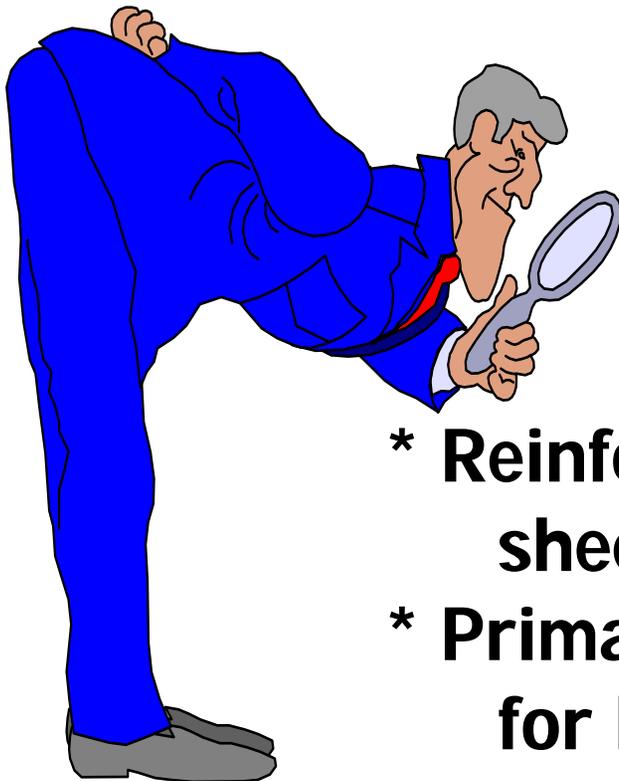
**If potential over-exposure exists, it is necessary to begin air monitoring, employee training, and medical surveillance.**

**Personnel known to have been exposed to airborne concentration above the PEL shall be notified in writing of the exposure 5 days after the finding.**



# Areas Where Asbestos Can Be Found

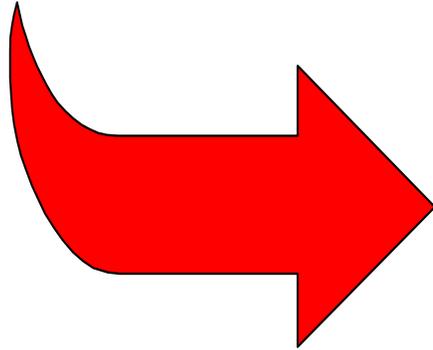
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- \* **Suspended ceiling tiles**
- \* **Thickening agents in paints**
- \* **Exterior siding shingles**
- \* **Fireproof drapes and curtains**
- \* **Vinyl flooring and mastic (glue)**
- \* **Friction products (brake & clutch facings)**
- \* **Reinforcing materials (cement pipe & sheet materials)**
- \* **Primary insulation and lagging material for high temperature machinery, boilers, and piping**

# Working with Asbestos

WHEN ASBESTOS IS  
HANDLED  
MIXED  
APPLIED  
REMOVED  
CUT SCORED.....



SHALL BE WORKED IN  
A **WET STATE** TO  
PREVENT AIRBORNE  
FIBERS IN  
THE ATMOSPHERE.

## Working with Asbestos (cont'd)

# Employees Working with Asbestos Shall Not:

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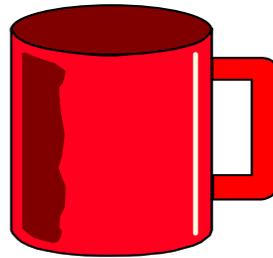
**Eat / Drink**

**Chew tobacco**

**Chew gum**

**Smoke**

**Apply cosmetics**



**IN THE WORK AREA.**



# Asbestos Containing Material

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**Friable Asbestos - Reduced to powder by hand pressure when dry.**

**Non-Friable Asbestos - Usually found bonded into other materials.**

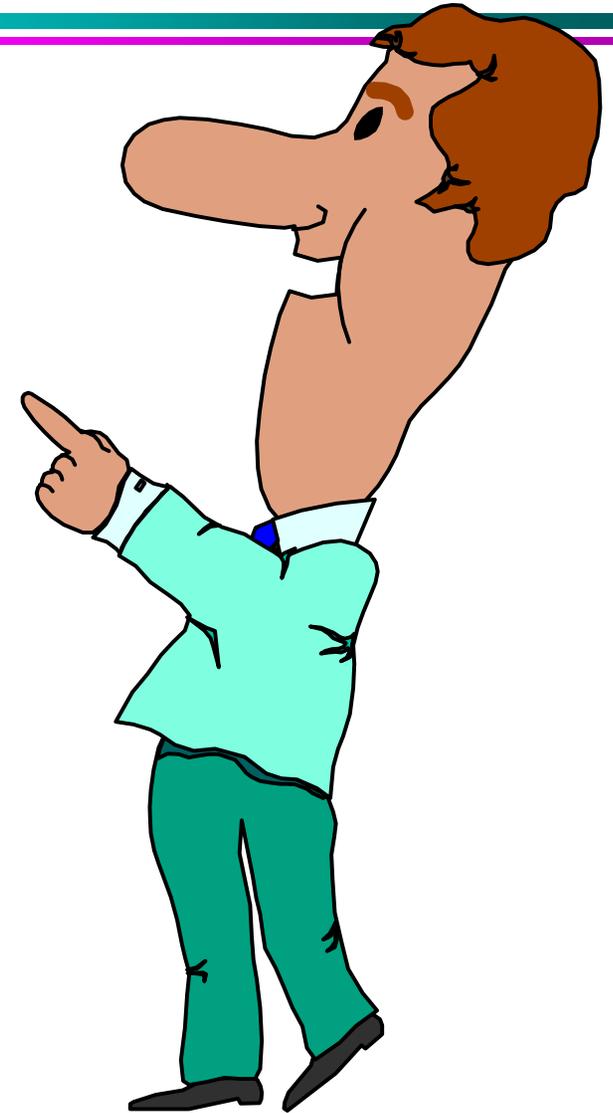
**Definition: Friability - the likelihood that fibers will break loose and become airborne.**



# Sources of Damage Resulting in Fiber Release

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- **Chemical spills, leaks or fumes**
- **Fans and blowers**
- **Exposure to elements**
- **Vibration**
- **Impact from other objects**
- **Drilling**



# Lunchrooms

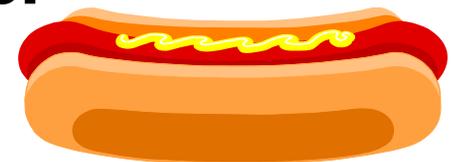


**Special lunchroom facilities shall be provided for employees who work in areas where their exposure is above the PEL.**



**These facilities shall have a positive pressure, filtered air supply & should be readily accessible.**

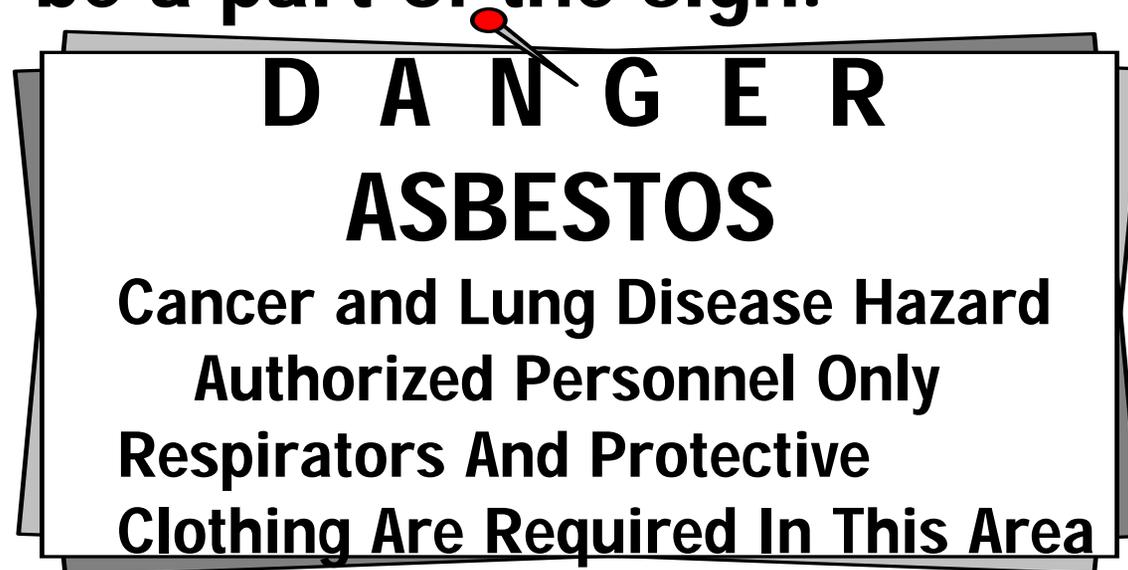
**Prior to use, employees should have washed their faces, hands and removed surface asbestos from clothing & equipment by vacuuming or other means.**



# Warning Signs

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- \* **Conspicuously displayed anywhere the airborne concentration exceeds PEL.**
- \* **Required protective equipment may be attached to or be a part of the sign.**



# Warning Labels

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- **Warning labels shall be attached to containers.**
- **Labels shall be printed in letters of sufficient size & contrast to be readily visible & legible.**

**D A N G E R**

**Contains Asbestos  
Fibers**

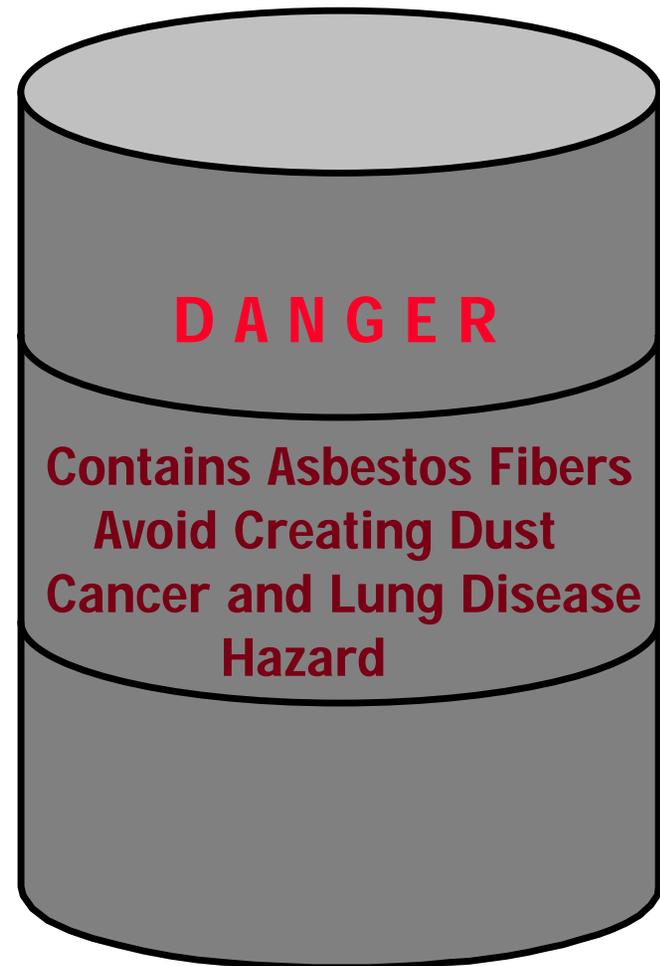
**Avoid Creating Dust**

**Cancer & Lung  
Disease Hazard**

# Disposal Procedures

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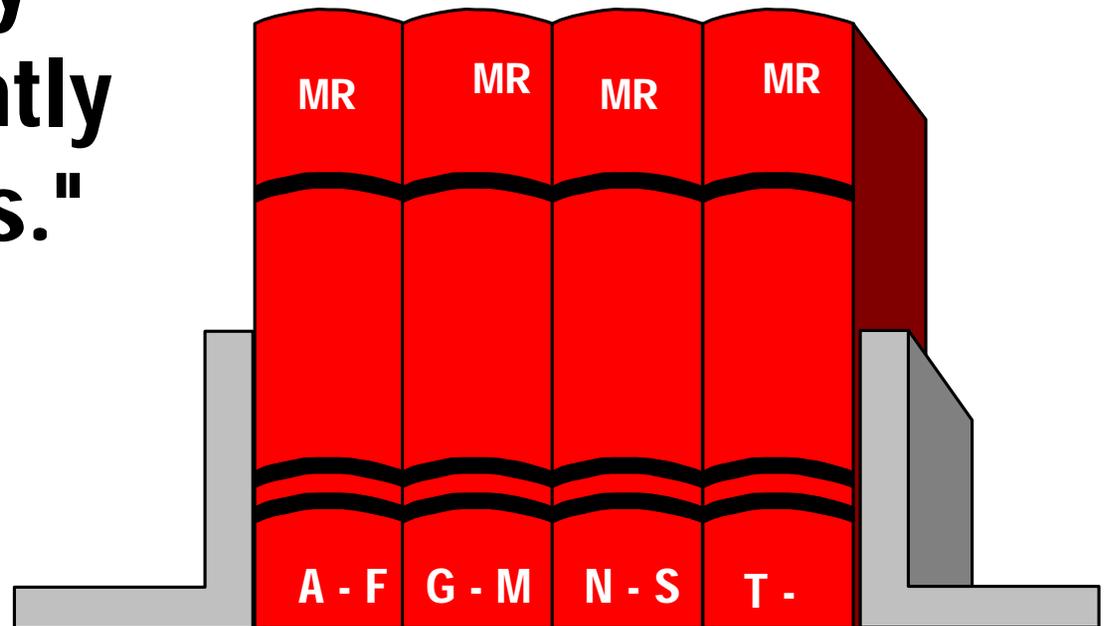
- Containers must be properly labeled with standard asbestos warning.
- Asbestos waste containers shall be color coded for easy recognition.



# Medical Records

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**All personnel who are included in the asbestos medical surveillance program shall have the exterior of their health records and X-ray jackets prominently marked "Asbestos."**



# ASBESTOS

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- If you have any questions or concerns please contact the MASC Regional Safety Manager at (303) 497-3912 or [Rhonda.S.Carpenter@noaa.gov](mailto:Rhonda.S.Carpenter@noaa.gov)