

Asbestos Abatement and Asbestos Containing Materials Management

QUESTIONS

1. Galbestos is primer paint that is fire retardant and is sandwiched between metal or another type of material with paint covering the primer. Percent of asbestos is unknown. Nonfriable if not cut or ground on. Question is, should an asbestos abatement contractor be required to remove this material?
2. Since 1926.58 (e)(6) states enclosures shall be erected when feasible, what should we be doing about transite removals?
3. Possible asbestos exposures: Contractor's have experienced problems finding an enclosed shower. Also, asbestos is not something that can be seen or felt so people are reluctant to get in a safety shower and may not admit to possible exposure.
 - A. We had one incident where a contractor had a possible exposure, then went home. Has Dow any responsibility for his personal car, home and family?
 - B. Contractor's exposure to asbestos or any chemical: During the introduction to the plant, is asbestos talked about as a chemical and are showers required regardless of what chemical someone is exposed to?
 - C. Dow is using contractors more and more for maintenance work. Dow personnel are told not to take their work clothing home to be laundered. Should we continue our current policy of having contractors launder their own clothes?
4. Why won't Dow wash clothing that may have been contaminated with asbestos? And if Dow will:
 - A. Have the people at the laundry been medical fit-tested for asbestos work?
 - B. Have they had the proper physicals?
 - C. Have they had two (2) hours of awareness training?
 - D. Are any or all of the above required?
5. Should each project be inspected and prepared before contractors are assigned or awarded a project? This should include having leaks, spills, slipping hazards, chemicals and asbestos checked by a knowledgeable person.
6. Should Michigan Division have an Operations & Maintenance Program that addresses asbestos in place? If we should, should each facility have one or should there be one that covers all buildings?

ST0083542

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7. Should Dow hire the 3rd party air clearance contractor?
- A. This has proven to be expensive.
 - B. Each abatement contractor subs this work to different labs, which causes more than one lab to be in the plant at the same time, when one could be sufficient.

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BUILDING OPERATIONS & MAINTENANCE PROGRAM FOR ASBESTOS

1. Develop an inventory of all visible asbestos-containing material in the facility:
 - A. The insulation on piping and equipment is being done through the Insulation Identification Program. All equipment and piping will be identified with labels as being asbestos or non asbestos containing materials in buildings constructed prior to 1972. All newly installed insulation will be labeled as non asbestos.
 - B. Building materials will be identified before each renovation project is initiated, such as(drywall, floor tile, ceiling and insulating material.)
 - C. Acid proof grouts, asbestos gaskets and structural steel with sprayed on fire retardant will be identified before maintenance activities are required.
2. Periodic examination of all identified asbestos-containing materials to detect deterioration will be conducted.

Building inspections will be required every six months on all existing asbestos containing material. Should deterioration or damage be found appropriate action will be initiated. The superintendent of each building will initiate action and will maintain piping and equipment identification records for that building.
3. Procedures for handling asbestos-containing materials during the performance of small scale, short duration maintenance and renovation activity will be followed. (Refer to standard I.H. 140 paragraph VIII and IX attached)
4. Procedures for asbestos disposal will be followed.

(Refer to standard I.H. 140 paragraph VIII D)
5. Procedures for dealing with asbestos-related emergencies will be followed.

(Refer to standard I.H. 140 paragraph X)
6. Members of the building's maintenance engineering staff (electricians, heating and air conditioning engineers, plumbers, janitorial staff, etc.) who may be required to handle asbestos-containing materials shall be trained in safe handling procedures. Such training should include as a minimum:

All maintenance personel entering Michigan Division shall be required to complete the Two Hour Asbestos Awareness Training as per Act 147 Bill No.770 sec. 59e.
7. Prohibited activities during maintenance are:
 - A. Drilling holes in asbestos-containing materials.
 - B. Hanging plants or pictures on structures covered with asbestos-containing materials.
 - C. Sanding asbestos-containing floor tile.
 - D. Damaging asbestos-containing material while moving furniture or other objects.

ST0083544

- E. Installing curtains, drapes or dividers in such a way that damage is caused to asbestos-containing materials.
 - F. Dusting floors, ceilings, moldings or other surfaces in asbestos-contaminated environments with dry brushes or sweeping with a dry broom.
 - G. Using an ordinary vacuum to clean up asbestos-containing debris.
 - H. Removing ceiling tile below asbestos-containing materials without wearing the proper respiratory protection, clearing the area of other people, and observing asbestos removal disposal procedures.
 - I. Removing ventilation system filters dry.
 - J. Shaking ventilation system filters.
8. Proper identification of asbestos containing material and maintenance of warning labels for asbestos-containing materials is essential. (As per 29 CFR 1910.1200 (f) of OSHA's Hazard communication standard and 29 CFR 1926. 58.)

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PERMITS & INSPECTIONS FOR ALL ASB.REMOVAL PROJECTS

1. Before any asbestos project removal, encapsulation, or enclosure a permit must be obtained by the owners' representative from the asbestos inspector.
2. Reasons for and asbestos permit and inspector.
 - A. uniformity for inspections and removals
 - B. provide a central location for all asb. work in the Michigan division.
 - C. provide consistent contract administration for asbestos abatement work.
 - D. documentation of safety procedures
 - E. uniformity in asb. exposures
 - F. documentation of post abatement clean air.
3. The inspector and permit signer should knowledgeable in asbestos rules and procedures and have completed the competent person training.
4. this job will probably be a full time job and this person will have to work close with asbestos contract administrator.

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ASBESTOS REMOVAL SITE CHECKLIST

JOB NO. _____ DATE _____
 LOCATION _____
 SUPERVISOR _____

	YES	NO	N/A
<u>BARRIERS</u>			
Floor Covering Intact	_____	_____	_____
Wall Coverings Intact	_____	_____	_____
Sharp Protrusions Covered (to keep barriers from ripping)	_____	_____	_____
Decontamination Chambers Erected	_____	_____	_____
Door Flaps Intact	_____	_____	_____
Visible Emission	_____	_____	_____
<u>FILTRATION</u>			
AFD Positioned Properly (opposite entry)	_____	_____	_____
Negative Air Pressure Developed on enclosures and glove bags (door flaps being drawn in)	_____	_____	_____
HEPA Vacuums Operating Properly	_____	_____	_____
<u>WARNINGS</u>			
Barrier Tape Up	_____	_____	_____
Warning Signs Posted (at each entry)	_____	_____	_____
Labeled Bags On-hand	_____	_____	_____
<u>DECONTAMINATION FACILITIES</u>			
Shower On-site	_____	_____	_____
Warm Water (supplied or heater)	_____	_____	_____
Towels/Soap/Shampoo	_____	_____	_____
Drained Filtered	_____	_____	_____
<u>TOOLS/EQUIPMENT</u>			
Scrapers/Knives/Brushes	_____	_____	_____
Wetting Agent Used	_____	_____	_____
Protective Suits Kept Intact	_____	_____	_____
Respirators Appropriate	_____	_____	_____
Filter Cartridges Changed Daily (min.)	_____	_____	_____
Hardhats/Safety Glasses/Safety Belts	_____	_____	_____
<u>WORK PRACTICES</u>			
Material Removed Wet	_____	_____	_____
Material Properly Bagged	_____	_____	_____
Respirators Left On In Work Area	_____	_____	_____
All Personnel Decontaminated Each Exit	_____	_____	_____
Equipment Decontaminated Each Exit	_____	_____	_____
<u>MONITORING</u>			
Background Samples Taken	_____	_____	_____
(if YES, by whom _____)	_____	_____	_____
Personal Samples Taken (no. _____)	_____	_____	_____
Area Samples Taken (no. _____)	_____	_____	_____
Clearance Samples Taken	_____	_____	_____
(if YES, by whom _____)	_____	_____	_____

INSPECTED BY _____

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ASBESTOS REMOVAL PLAN

A plan for removal shall be submitted with the bid and shall include in detail the following.

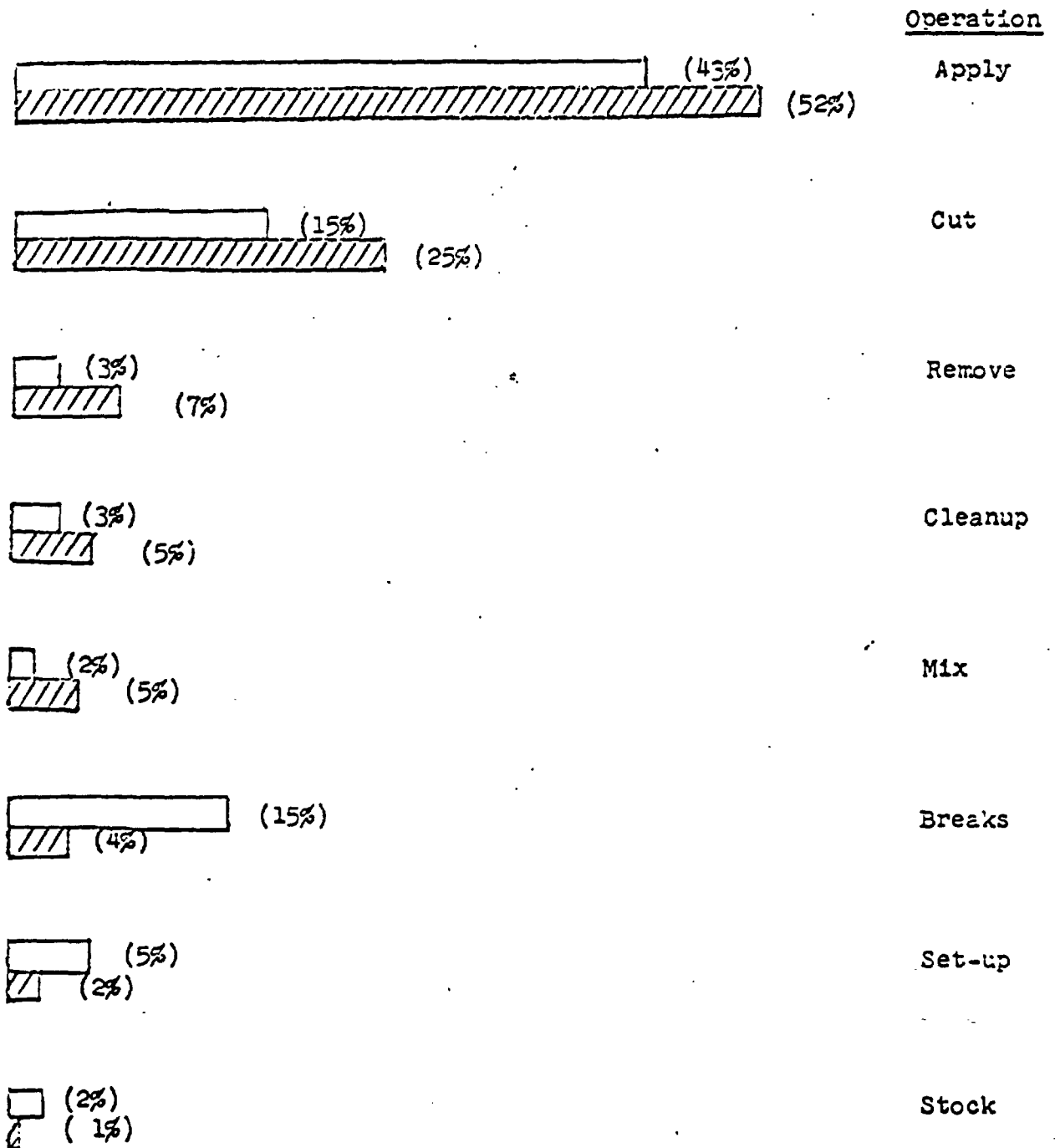
- How regulated area are to be handled with:
barriers
signs
barricades
- detailed safety activity plan
- All monitoring results shall be copied to Industrial hygiene and the owners rep:
Employees personal monitoring
post abatement clean air
- Methods of compliance:
Name of competent person on site
Use of negative air
Us of hepa vacuum cleaners
Amended water
Encapsulant
- Hygiene facilities:
Shower and change room facilities
Lunch room facilities
- Detailed removal procedures
Negative pressure containment
Glove bagging procedure
Containment of the asbestos material
House keeping procedures
- Disposal
On site storage area
Waste container to be used
- Services to be provided by Dow:
Electrical
water
sewer
disposal site

The following would be described, but would assumed to be in the bid.

Removal site
Quantity of material to be removed
description of material to be removed
Friable or non-friable asbestos

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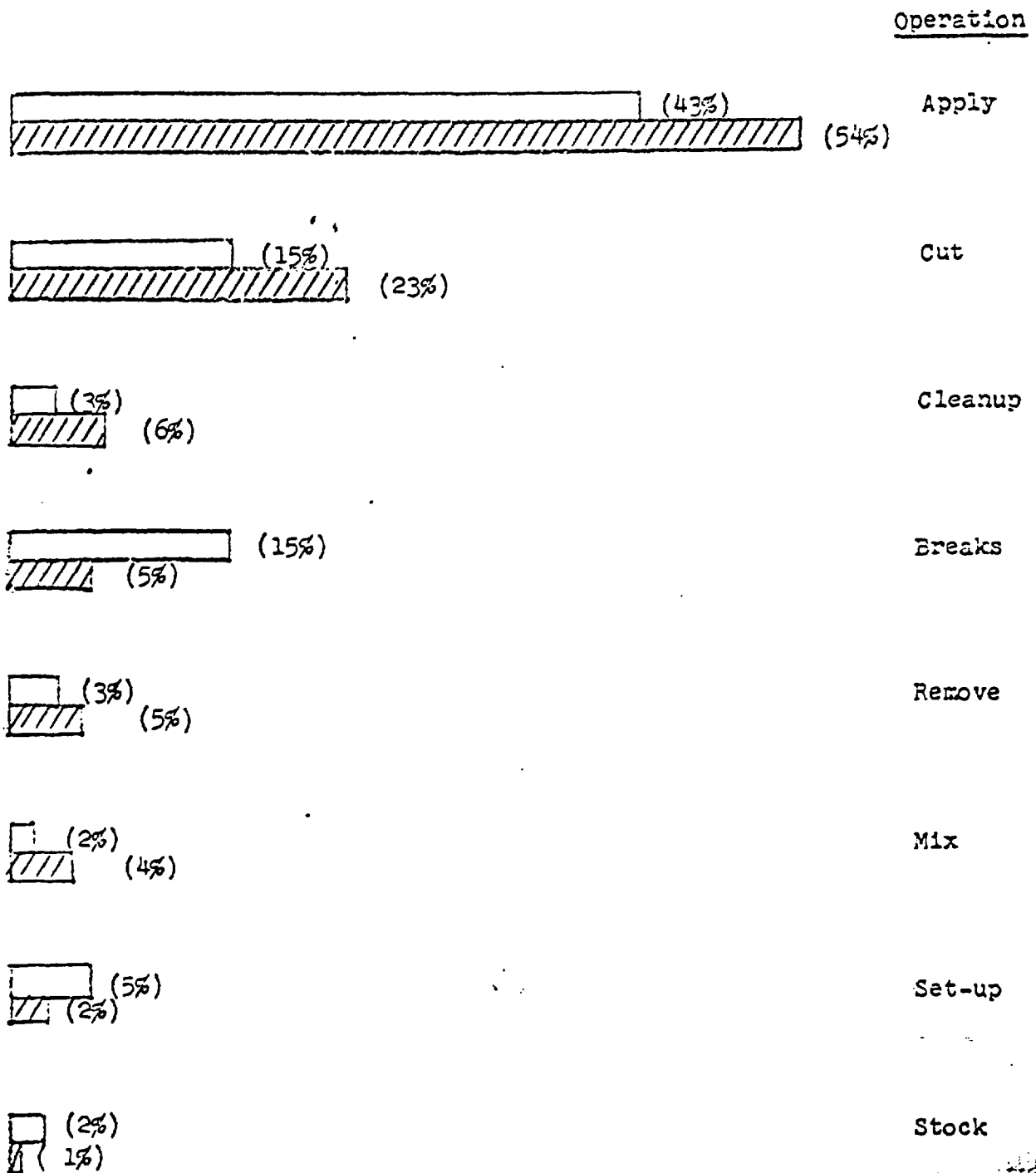
Graph I. Relationship between %Day spent handling insulation materials containing asbestos and %Dose (indoors).



Code:  %Day
 %Dose

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Graph II. Relationship between %Day spent handling insulation materials containing asbestos and %Dose (outdoors).



Code:  %Day
 %Dose

MINIMAL RESPIRATORY PROTECTION REQUIREMENTS

Material	Remove	Mix	Cut	Apply
Air Cell	X			X
Kaylo (Cal sil)	X		X	X
High Temp	X			
Mag Oxide	X			
No. 1 Plus (Webbers)		X		
Armentite (Asbestos Shorts 352)		X		
Super Power				
Thermobestos				
Fiberglass				

1. You shall wear a respirator* when doing the above operations marked X.
2. You should wear a respirator* whenever a dusty situation exists.

*MSA Dustfoc or Sure Guard (R-2090) are the only allowed types.