

P. H. Siems/J. H. Jackson, Texas City, Texas

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ASBESTOS SAFETY

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Maintenance Supervision
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Due to the recent changes in the contract, many of our people will come in contact with insulation from time to time.

One of the insulating materials we still have in-service is asbestos. We no longer use asbestos, but there are areas where it is still in-service and will be replaced with another material as repairs are made or pipe and equipment are replaced.

Until all asbestos has been removed from our plant, every effort must be made to protect our employees from breathing and getting asbestos fibers on them.

Attached are two (2) procedures for identifying insulation that contains asbestos fibers. Also attached are the general rules and practices regarding the stripping and disposal of asbestos material at Monsanto, Texas City.

As stated in the Pabco bulletin using a propane torch is a positive way to identify asbestos fibers. We will have torches available at the Insulator Shop.

To make sure that this information is disseminated to all concerned supervision, please distribute the enclosed copies to your staff.

If problems in identification still arise that cannot be resolved during the day shift, contact the Environmental Group. During off-hours the Shift Maintenance Foreman and Night Supervisor have had special training.

Paul
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/sr

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PTB-48-7A
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Replaces PTB-48-7

ASBESTOS IDENTIFICATION IN OLD CALSIL INSULATION*

Because of the health hazards involved in working with asbestos, it is essential that old asbestos-containing calsil be properly identified to avoid accidental worker exposure during maintenance or removal procedures.

Prior to the early seventies, all calcium silicate insulation, and several other types as well, contained asbestos as the reinforcing fiber. Most of the asbestos used was chrysotile, but other types such as crocidolite and amosite were also used. All are hazardous to health.

Since the early seventies, all manufacturers have switched to either glass or organic fibers for reinforcement. Because of the refractory nature of asbestos fibers, they are not destroyed by the flame from a propane (Bernzomatic) torch. Rather, they glow as little incandescent rods in the propane flame. Since the newer fibers -- glass, rayon, polyester, cotton, etc. -- are destroyed by the propane flame, this provides an easy means of positive identification for asbestos.

The simple procedure is as follows.

1. Break a small piece of insulation off a section of calsil.
2. Heat the broken surface with the flame from a propane torch.
3. Observe. Figure 1 shows asbestos-containing material. The material in Figure 2 does not contain asbestos.
4. With some experience, a good worker can break off a chunk of insulation and tell by eye whether or not asbestos is present. A small magnifier makes the process even simpler to carry out.

*NOTE: Since December, 1978, the Pabco Division started to mark all of their Super Caltemp production with an identifying green stripe that shows it is asbestos free.

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e No. 2

Figure No. 1

Appearance of asbestos-
containing insulation
in propane flame.
Asbestos fiber does not
melt and shows up as
little glowing rods in
the flame.

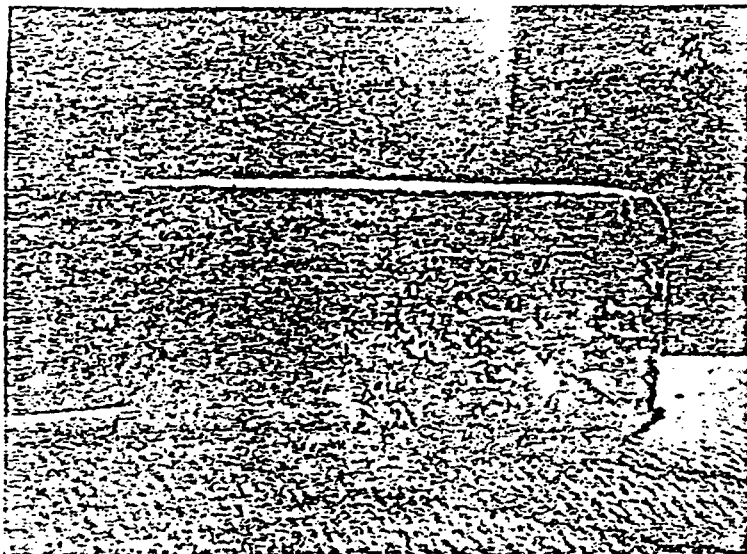
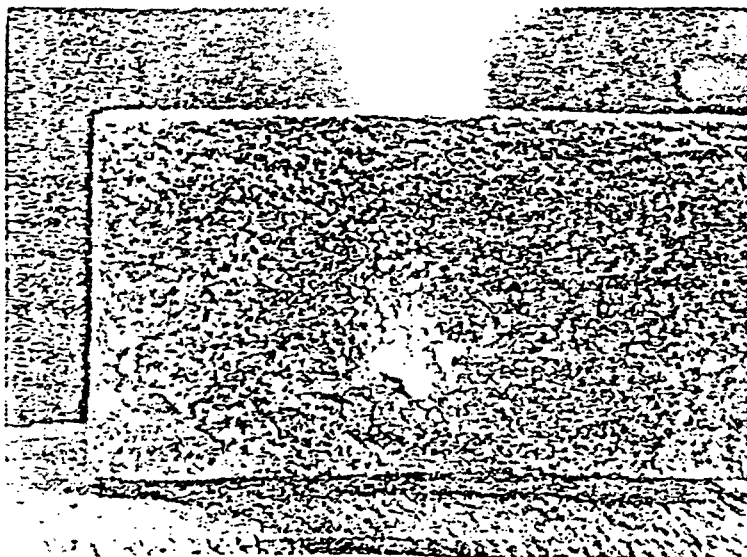


Figure No. 2

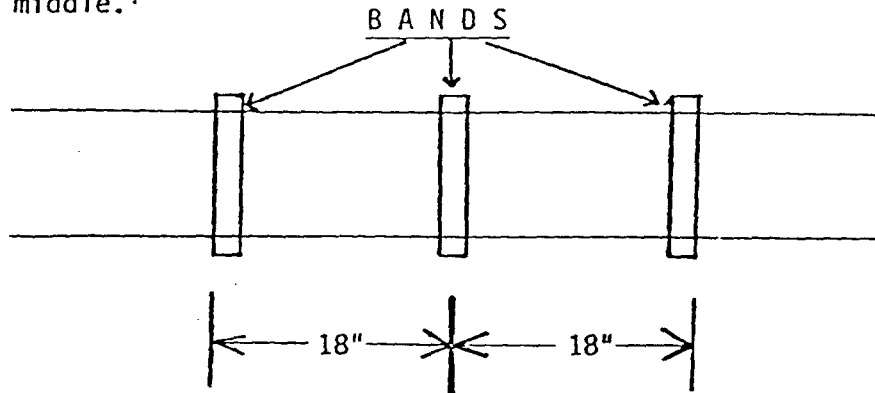
Appearance of non-
asbestos insulation in
propane flame. No rods.



ASBESTOS IDENTIFICATION

1. Outside coverings are tied with wire.

2. Outside coverings are tied with bands on each end and in the middle.



3. When panhead screws are used in metal covering.

(Panhead Screw)



4. On off-hours, if you are not sure, treat as asbestos, or call Shift Foreman (Ext. 3637) or Night Supervisor (Ext. 3346) who in turn may call Dan Campbell 945-9940 or Ray Moore 944-9489.

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GENERAL RULES AND PRACTICES REGARDING THE STRIPPING AND DISPOSAL OF ASBESTOS
MATERIAL AT MONSANTO COMPANY, TEXAS CITY

I. PROTECTIVE EQUIPMENT, CLOTHING AND SHOWERS

1. Protective Equipment and Clothing must be worn at all time when stripping or cleaning up asbestos material.
 - a. Protective Equipment Consists Of:
 - (1) COMFO II custom dust respirator with type "F" filter
 - (2) Plastic gloves
 - (3) Rubber boots
 - b. Protective clothing consists of re-usable cloth coveralls. Cold weather clothing includes cloth jacket and thermal underwear.
2. Protective Clothing and Shower Procedure
 - a. Protective clothing will be issued by the Insulation Craft Foreman or Maintenance Shift Foreman on off-hours.
 - b. Protective clothing will be stored in the "CLEAN" room of the asbestos shower facility.
 - c. Persons working with asbestos must use the Asbestos Shower Room for cleanup. People entering this facility must use the door marked "DIRTY" if they are contaminated with asbestos.
 - d. At NO TIME should a contaminated worker enter the "CLEAN" room until he has been cleaned off all asbestos. This is accomplished by removing and washing both rubber boots and clothes preceded by a shower.
 - e. Respirators are to be collected and return to Safety Supply after being sealed in a bag labeled "USED IN ASBESTOS". The collection bag will be located in the "DIRTY" room.

I. PROTECTIVE EQUIPMENT, CLOTHING AND SHOWERS

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2. Protective Clothing and Shower Procedure (cont'd.)

- f. At job completion or before any meal time workers handling asbestos must use the cleaning procedure described in the above steps.

II. PROCEDURE FOR WORKING WITH ASBESTOS MATERIAL AND ITS DISPOSAL

1. Preparation For Work

- a. The area must be barricaded off with black and yellow tape at a distance that would prevent exposure.
- b. Warning signs must be displayed around the barricaded areas so that they are visible from all points of access.
- c. The area within the barricade should be kept wet at all times, if possible.
- d. All asbestos material to be stripped must be hosed down and kept wet until it is placed into the disposal bags.
- e. Protective clothing and equipment must be worn at all time within the barricade.

2. Disposal of Asbestos Material

- a. All asbestos material must be placed in .006 thickness plastic bags labeled "WARNING ASBESTOS MATERIAL". The bags must be sealed.
- b. Only asbestos material should be placed in he bags. Broken glass, jagged metal, etc. could puncture the bag creating a dust hazard.
- c. The maximum full bag weight should not exceed forty (40) pounds. Excessive bag loading could result in bag breakage.
- d. Bags of asbestos will be carried by truck to the special asbestos material dumpster located South of the Main Gate Locker Building. ONLY ASBESTOS MATERIAL PROPERLY BAGGED AND LABELED SHOULD GO IN THIS DUMPSTER.

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2. Disposal of Asbestos Material (cont'd.)

- e. Bags should be handled with care at all times to prevent bag rupture.
- f. When the job is completed, the area within the barricade must be cleaned by washing or vacuuming.

III. PIPE AND EQUIPMENT GOING TO SHOP OR SALVAGE

- 1. Insulation containing asbestos should be removed (according to our asbestos procedures) prior to the piping or equipment being taken to the Shop for repairs or to Salvage. If for any specific reason, it is desirable not to remove the insulation, it must be handled as an exceptional case and will require special considerations, such as, warning labels and certain notification to the receiver of the equipment. The hauling of piping or equipment containing loose asbestos insulation is PROHIBITED, either in or out of the plant.
- 2. The transporting of piping or equipment out of the plant containing asbestos insulation can be done provided it fits within the following guidelines:
 - a. The items are to be labeled as containing asbestos using standard labels (Sect. g. (2), ii).
 - b. There can be no loose insulation. All cut edges must be contained by covering and/or taping.
 - c. The transporter and receiver of the equipment must be made aware that asbestos is involved and that he assumes responsibility. This should be done by memo, with copies of regulation attached, if appropriate.

IV. DISMANTLING OF UNITS

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When major dismantling occurs involving large amounts of asbestos, EPA requires prior notification. This is usually done by the dismantler contracted to do the job. The OSHA requirements (and Plant requirements) for stripping, bagging, etc. will be the same as normal Plant Procedure.

GENERAL:

In cases where there is some question whether the insulation contains asbestos, it shall be treated as asbestos until the results of a sample analysis is obtained. The Industrial Hygiene Group can make rapid determination in most cases by microscopic examination of a small sample.

Questions relating to this subject, not covered in this procedure, should be referred to H. G. Bullock, J. H. Jackson or V. A. Mapes.

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