

COMMENTS ON ABT DRAFT OF
TRAINER'S GUIDE FOR BRAKE SHOP MANAGERS

Page 15

The presentation on cancer is quite simplistic, which may be okay for the purpose of this guide; but it does not seem quite right to present mesothelioma the way this text does. It makes it sound as though mesothelioma is a kind of lung cancer which is not correct.

The closing statement that mesothelioma "is extremely rare except among people exposed to asbestos" makes it sound as though mesothelioma is common among people who have been exposed to asbestos, and this really isn't the case. Mesothelioma is rare even among people exposed to asbestos.

Page 19

I think this discussion should include a description of how inhaled fibers are rejected from the respiratory tract and swallowed in saliva. I believe this is the primary means of fiber entering the digestive tract.

The discussion should include remarks on the effects of smoking on the respiratory rejection mechanism.

Page 21

The word "smokers" in the third line of the first paragraph should be changed to "asbestos workers who smoke."

I question the validity of the statement "almost every case can be traced to the victim having been exposed to asbestos" in reference to mesothelioma. I believe most recent information indicates a significant incidence of mesothelioma cannot be traced to exposure to asbestos.

Page 23

I also question whether the statement on autopsys and mesothelioma "they almost always find high concentrations of asbestos fibers" is correct. I thought many mesotheliomas were associated with low fiber exposures, and presumably, low concentrations of fiber in the lung tissue.

Page 24

It should be pointed out that dust levels shown for beveling lining are for uncontrolled operations.

ABT DRAFT (Continued)

Page 32

The illustration of the industrial hygienist taking a sample as shown on the right hand side of slide 11b is not a valid representation. Asbestos samples usually are taken with a worker wearing the sampling apparatus, or by taking a stationery sample with the pump mounted on a stand or merely resting on a stationery surface. I have never known an asbestos sample to be taken in the manner illustrated. It is important this illustration be shown correctly, as it appears numerous times on other slides shown throughout the Abt Drafts.

Page 37

Item 2 regarding grinding used truck linings is incorrect. Lining is not ground "to remove grease and dirt." Grease and dirt usually are removed by solvent vapor degreasing or a caustic wash or by exposure to very high temperature. If arc or radius grinding is done to achieve exact fit of lining to drum, exhaust control is needed to avoid generation of excessive airborne fiber levels.

Page 38

Slide 13 escapes me. The grinder shown is not typical of types commonly used for brake service work. Nor is the one shown on Slide 12 on page 36.

I simply can't tell what the guy on the right side of the slide is doing with what looks like a hose.

Page 42

On Slide 14 it would be better to show the drum lying on the floor and the backing plate assembly mounted on a vehicle axle, as this is usually where these items are when they are cleaned.

The grinder shown on Slide 15 is not typical of grinders used for arcing or beveling brake linings.

Page 43

The remarks regarding Slide 14 should include wet spray cleaning and/or wiping with a damp cloth as alternates to vacuum cleaning.

Page 45

The conclusion of the remarks regarding Slide 15 should allow a dust ventilation system as an alternate to a vacuum cleaner. A

ABT DRAFT (Continued)

Page 45 (continued)

dust system with proper hooding, duct work, fan and dust collector actually is better than a vacuum cleaner for medium sized and large shops.

Concerning Slide 16, I prefer "removed" to "disabled" in reference to compressed air nozzles in shop areas as mentioned in the final sentence of this paragraph.

Page 48

The grinder shown on Slide 20 is not typical. Long flexible hose as shown on this slide and Slides 13 and 15 should not be used for stationery equipment because of excessive friction loss and lower durability than metal duct work.

Page 51

I suggest the "plastic bags" referred to be given some qualifications such as heavy duty, heavy wall, or some similar characterization. The way also should be kept open for using dust-tight containers other than plastic bags.

Page 56

I question whether the three types of respirators illustrated are really characteristic of what normally is used in asbestos operations. I've never seen anyone use a full face piece mask, and the dual filter half face piece masks are only rarely used. Our people usually prefer the lighter weight, smaller single filter half face masks or a disposable type of mask. I don't believe the belt mounted type of powered respirator shown is presently approved or available in this country. Perhaps they should consider changing this illustration to show a back mounted powered respirator, which I believe is approved and available.

Page 57

I question whether the last paragraph regarding supplied air versus filter respirators is factual. Supplied-air respirators must be continuously connected to an air supply hose, which can be a cumbersome uncomfortable nuisance to the worker. In most cases I should think a worker would prefer a good filter respirator for exposure levels within its limitations.

Page 59

Reference is made to the ANSI guidelines for a respirator program.

ABT DRAFT (Continued)

Page 59 (continued)

These are generally quite good, but I don't like the ANSI instructions for testing respirators for fit. I think they are impractical for field use by asbestos construction and/or production workers in some respects.

The reference to problems from clothing exposure appear unnecessarily alarming for low level exposures. I think this paragraph should point out that problems of this nature only occur where exposures are high.

Page 64

The illustration of the industrial hygienist taking sample as shown on the right hand side of Slide 29 is not a valid representation. Asbestos samples usually are taken with a worker wearing the sampling apparatus, or by taking a stationery sample with the pump mounted on a stand or resting on a stationery surface.

Page 71

Is 20 years long enough for medical record storage? I thought this was changed to at least 40 years.

Page 74

I suggest "wet processing" be added to "vacuum lines" as a method of engineering control shown on Slide 41.

I think it might be better to list the following three items under engineering controls in place of "vacuum lines" on this slide:

1. Isolation
2. Ventilation
4. Wet Processing

ABT ASSOCIATES INC.
55 WHEELER STREET, CAMBRIDGE, MASSACHUSETTS 02138
TELEPHONE • AREA 617-492-7100
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November 18, 1977

Mr. Robert Mereness
Asbestos Information Association
1745 Jefferson Davis Highway
Arlington, Virginia 22202

Dear Mr. Mereness:

As you are aware, Abt Associates is currently developing training materials for workers who are exposed to carcinogens in their places of employment. The work is sponsored by the Occupational Safety and Health Administration (contract no. J-9-F-6-0125) as part of their Cancer Alert Program. A brief project description is appended to this letter.

One carcinogen with which we are concerned is asbestos. Specifically, we are developing training materials for both workers and managers in two industries, brake repair and building construction. These materials are now in draft form, and are being reviewed by OSHA and by outside experts.

Because of the clinical importance and political sensitivity of occupational cancer, we are anxious to have our materials reviewed by leading workers in the field; this group obviously includes you and your colleagues at the Asbestos Information Association. The enclosed package contains trainers' manuals for two managers' courses, one aimed at construction and one aimed at the brake repair industry. I have not included the participants' materials; since they are summarized in the trainers' manuals. Also, I have omitted most of the background readings since these are chiefly reprints of government documents, with which you are no doubt familiar as well as publications of your own Association. The one background reading which I have included is Dr. Richard Glasser's article, "The Real Cause of Cancer."

While I do not want to constrain your comments in any way, there are a few general questions which are of particular concern. These are:

- Is the technical content complete and correct?
- Are the materials properly balanced between technical information and "consciousness-raising?"
- Is the tone of the materials appropriate to the audience(s)?

These are the general issues on which we seek guidance, in addition to any specific criticisms you may think appropriate.

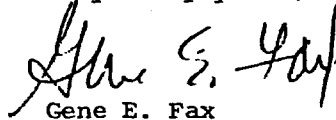
FMSI 06917

TO: Mr. Robert Mereness

Page 2

In regard to your response, please use whatever method is most convenience for you and your staff. If you are able to respond in writing, we would appreciate it. Otherwise, a telephone conversation, scheduled in advance, would be quite satisfactory for our purposes. Your comments will be most useful if we could receive them in about two weeks' time. Thank you for your kind assistance.

Very truly yours,



Gene E. Fax
Senior Analyst

GEF:jhs

encs.

FMSI 06918

Contents of Participants' Packages

A. Brake Shop Managers

1. Hard copies of slides, with brief introductory text
2. "Fabrication and Use of Asbestos Friction Materials," 40-page booklet published by the Asbestos Information Association
3. Occupational Safety and Health Administration, "Standard for Exposure to Asbestos Dust," 36 Federal Register 10466, 29 May 1971.
4. National Institute for Occupational Safety and Health, "Recommended (Interim) Procedures for Asbestos Brake and Clutch Servicing," and cover letter, August 8, 1975.
5. "Industrial Hygiene Consultants," American Industrial Hygiene Association Journal, Vol. 38, No. 6, June 1977.
6. National Institute for Occupational Safety and Health, "Suppliers of Protective Equipment," undated.
7. National Institute for Occupational Safety and Health, "OSHA Handbook for Small Businesses," OSHA 2209, Revised 1977.
8. Posters (published by the Asbestos Information Association):
 - a. "When required, always use your respirator"
 - b. "If you don't smoke now, don't start; if you do smoke, quit."
 - c. "Use change rooms and lockers; leave dusty clothes at work."
9. Sample "Asbestos Hazard" labels
10. All About OSHA, Program and Policy Series, U.S. Department of Labor, Occupational Safety and Health Administration (revised) 1976.

B. Brake Service Workers

1. Hard copies of slides with captions and space for notetaking
2. What You Should Know About Asbestos and Health, Asbestos Information Association.
3. Caution: Asbestos Dust ... Is Hazardous to Your Health, National Institute for Occupational Safety and Health, Public Health Service, U.S. DHEW, Cincinnati, Ohio; 45202.
4. How to Use OSHA, A Workers' Action Guide to the Occupational Safety and Health Administration, Occupational Health and Safety Project, Urban Planning Aid, Cambridge, Mass. 02139
5. All About OSHA, Program and Policy Series, U.S. Department of Labor, Occupational Safety and Health Administration (Revised) 1976.
6. Occupational Safety and Health Administration, "Standard for Exposure to Asbestos Dust," 36 Federal Register 10466, 29 May 1971.
7. Readings for optional exercises in Modules 1 and 4.
8. Picture Puzzle and Answer Key for Closing Exercise. It is a garage scene with several violations of the Standard and poor work practices depicted.

9. Cubic centimeter fold-up
10. Color poster of do's and don'ts of worker practices using negative symbol format like that in slide #37. Each picture will have a brief caption. The poster will be suitable for hanging in a locker, in the work area or at home.
11. OSHA Complaint Form

C. Construction Managers

1. Hard copies of slides, with brief introductory text
2. 40-page booklet published by the Asbestos Information Association:
"Shop and Field Fabrication of Asbestos Sheet Products"
3. Occupational Safety and Health Administration, "Standard for Exposure to Asbestos Dust," 36 Federal Register 10466, 29 May 1971.
4. National Institute for Occupational Safety and Health, "Recommended (Interim) Procedures for Asbestos Brake and Clutch Servicing," and cover letter, August 8, 1975.
5. "Industrial Hygiene Consultants," American Industrial Hygiene Association Journal, Vol. 38, No. 6, June 1977.
6. National Institute for Occupational Safety and Health, "Suppliers of Protective Equipment," undated.
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8. Posters (published by the Asbestos Information Association):
 - a. "When required, always use your respirator"
 - b. "If you don't smoke now, don't start if you do smoke, quit"
 - c. "Use change rooms and lockers; leave dusty clothes at work"
9. Sample "Asbestos Hazard" labels
10. All About OSHA, Program and Policy Series, U.S. Department of Labor, Occupational Safety and Health Administration (Revised) 1976.

D. Construction Workers

1. Hard copies of slides with captions and space for notetaking
2. What You Should Know About Asbestos and Health, Asbestos Information Association
3. Caution: Asbestos Dust ... Is Hazardous to Your Health, National Institute for Occupational Safety and Health, Public Health Service, U.S. DHEW, Cincinnati, Ohio, 45202.
4. How To Use OSHA, A Workers' Action Guide to the Occupational Safety and Health Administration, Occupational Health and Safety Project, Urban Planning Aid, Cambridge, Mass. 02139.
5. All About OSHA, Program and Policy Series, U.S. Department of Labor, Occupational Safety and Health Administration (Revised) 1976.

7. Occupational Safety and Health Administration, "Standard for Exposure to Asbestos Dust," 36 Federal Register 10466, 29 May 1971.
8. Cubic centimeter fold-up.
9. Color Poster of do's and don'ts of worker practices suitable for hanging in a locker in the worker area or at home.
10. OSHA Complaint Form

Packaging of Materials

Trainer's packages will be contained in vinyl three-ring binders with inside pouches to contain background materials. Participants' packages will be contained in manila expansion envelopes. Binders and envelopes will be labelled to identify course content and sponsoring agency.

ABT ASSOCIATES INC.
55 WHEELER STREET, CAMBRIDGE, MASSACHUSETTS 02133
TELEPHONE: AREA 617-492-7100

AREA: ECO

PROJECT: "Preventive Health Training Program on Occupational Cancer Hazards."

CLIENT: Department of Labor, Occupational Safety and Health Administration, (OSHA) (Stanley Kalin, acting project officer)

VALUE: \$300,963. (CPFF) - Contract No. J-9-F-6-0125

PERIOD: 7/1/76 - 12/31/77

Abt Associates is currently developing training materials for workers (and in some cases for management) who are potentially exposed to cancer hazards in their workplace. This contract is part of OSHA's Cancer Alert Program which also involves George Washington University and Denver Research Institute. Abt is currently formalizing the training plans for workers exposed to the following substances:

<u>Substance</u>	<u>Worker Group</u>
Inorganic arsenic	Copper smelter workers
Coke oven emissions	Coke oven workers
Solvents	Rubber workers
Asbestos	Construction and friction products workers
Hexavalent chromates	Chrome pigment production and paint production workers and spray painters

For each of the worker groups a plan for training materials has been or soon will be proposed. The summer months will be spent actually developing the materials. In the early fall we will be ready to pilot test the materials and then to modify or revise them before final submission to OSHA. Dissemination of the materials to workers is the responsibility of George Washington University after we have submitted our final product.