

June 22, 1978

To: Asbestos Study Committee

Subject: Recent front-page story in THE RECORD (Hackensack, New Jersey)
 headlined: "Deadly dust-particles from asbestos brakes."

Enclosed for your information is a copy of a recent article which appeared in THE RECORD, a Hackensack, New Jersey newspaper. The article was on Page 1, with continuation on Page 6.

While this article is sent for information, it is typical of the articles which appear regularly in THE RECORD. It, perhaps, calls for a rebuttal.

The authorities are, of course, Mr. Nicholson and Dr. Selikoff of Mount Sinai. There are several items which could be argued, but the main point is that the headlines do not describe the content of the story. The article does not document that there are indeed "deadly dust particles from asbestos brakes." It simply describes unsatisfactory procedures in local and regional brake repair shops. Its documentation is the "mesothelioma...years after one day of exposure," and "the wives who washed their husbands' contaminated clothes." These two are the oft-repeated examples from Mount Sinai which have no relationship to the "deadly dust from brake linings."

Other parts of the text are subject to argument including the following:

"...workers can also use shop vacuums that sell for \$29 to \$129."

"Jim Ducker...said there are no safety directives on handling asbestos."

"There is no federal law on handling asbestos dust."

"...the refusal to take proper precautions seems suicidal."

The tests on those who worked with insulation are not relevant to the exposure of brake repair workers, because both the types of asbestos used and the dosages to which workers are exposed differ radically.

The foregoing is for your information. Comments are welcome.

E. W. Drislane
Executive Director

JUN 19 1978

Deadly dust-particles from asbestos brakes

By Lucy Komisar
Staff Writer

Mechanic Dave Fernicola walks over to a car that slants forward from the jack set under its rear end and bends to touch the exposed metal wheel.

He holds out a finger covered with a charcoal-colored film. "Asbestos dust," he said.

To remove the dust, Fernicola, 26, who works at Circle Brake Service in Hackensack, wipes the brake drums with a dry rag and then tosses the rag into an open barrel.

Like most mechanics, Fernicola ignores recommended procedures, a failing that can lead to cancer or asbestosis, a chronic lung disease caused by inhaling microscopic asbestos fibers. Anyone in the garage is subject to the same hazards.

A recent survey of garages in New Jersey and New York revealed routine disregard of these basic safety procedures. Workers interviewed were all aware of the hazards; they simply ignored them or took ineffective precautions.

The National Institute for Occupational Safety and Health, a federal research agency, says asbestos dust should be vacuumed, not blown, from brake drums and floors. It rejects dry sweeping and cleaning under any circumstances. If ventilation at the source of the dust is inadequate, workers should wear filter masks, the agency said, to protect themselves from the dust.

Asbestos is used in brake linings because it is resistant to the heat caused when the lining presses against the rotating wheel.

Car repair workers can't avoid working with asbestos, but there are ways they can protect themselves, such as using masks or vacuums.

An industrial vacuum costs \$250, but workers can also use shop vacuums that sell for \$29 to \$129.

Fernicola, who lives in Paterson, said, "I've been wearing a mask for about four years since I took a biology course at [William] Paterson College,

and we started getting heavy into dangers from cancer."

He said he tried to talk his coworkers into wearing the masks which the company provides, but they ignored him.

"It's uncomfortable," said 33-year-old Tim Walsh of Dumont. He said he removes the dust by brushing it or blowing it with an air hose, both extremely dangerous procedures.

Michael Maresca, 18, of Ridgely Park also rejects the mask. "I don't believe in it, if you're going to die, you're going to die," he said.

"Real problem"

Circle Brake Manager Tom Colella said he can't make the men wear the masks. "It's a real problem. I don't know what to do myself," he said.

John Weller, a mechanic at the Exxon Service Center in Oradell, described similar hazards. "A lot of people blast [the dust] with an air gun, let it spray all over the room, and that's the way they do it here. When that happens, I step out of the shop."

However Weller does not follow recommended procedures himself. "I lightly brush off the backing plates, and the dust falls down onto the ground," he said. He said he knows it is safer to clean off brake dust by wetting it first, but adds, "I can't be wasting my time."

"Nobody wears a mask here," he said. "I would wear a mask if it were supplied to me, but I'm not about to go out and buy one."

The masks cost less than \$2 each.

Workers in government garages pay more attention to the asbestos danger, but even they do not always follow prescribed safety practices.

William Galdi, who heads the Bergen County Department of Motor Vehicles, said, "We wash the dust with gasoline or a cleaning solution. It comes down into a drain pan rather than get blown into the air."

However William Nicholson, associate director of the Environmental Sciences Laboratory at Mount Sinai Medical School in New York, said that process is not recommended:

"Exposure to gasoline fumes is not good for you either. They should use water. Just a damp rag will take the dust out. You don't want to use solvents. You're not trying to clean up oil; you're trying to clean up dust."

In Passaic County, road department Supervisor Alex Komar said brake workers use vacuums to draw out asbestos particles. However they do not wear masks or wet down the dust.

Even when vacuums are supplied, government workers sometimes fail to use them. Adam Caruso, master mechanic at the state police repair shop in Trenton, said:

"The men are supposed to vacuum the dust off, but a lot of times if you don't watch them, they don't do it. Sometimes they blow it off with a hose and get it all over the shop. Some men use a brush, catch the dust, and throw it in the garage."

"The air hose is quicker," he said. "The trouble is it spreads all over the shop. When the workers take off their masks, they breathe the asbestos that is floating in the air."

Many workers ignore precautions because the danger appears so far off — the incubation period for asbestos diseases is between 10 and 35 years. But then the results are debilitating and often fatal.

Dr. Irving Selikoff of Ridgewood who heads the Mount Sinai Medical School's Environmental Sciences Laboratory and is credited with provoking public awareness about asbestos hazards, is working with governments and unions to test workers who have been exposed to the dangerous fibers.

New Jersey Health Department spokesman Mitchell Leon said the state plans to work with Selikoff within the next few months to test state employees who have been exposed to asbestos dust at the central motor pool and state police garages.

The fibers that make up asbestos dust float in the air unseen. Even short exposure can be dangerous.

There are reports of workers contracting mesothelioma, a rare form of cancer caused by asbestos, years after one day of exposure in shipyards.

Deadly dust from brake linings

THE RECORD

(Continued
on Page 6)

Last month New York City municipal garage workers who belong to District Council 37 of the American Federation of State, County, and Municipal Employees, began a similar program of medical tests.

Jim Ducker, the union's director of health and safety, said there are no safety directives on handling asbestos. The city's way of handling brake dust puts workers in extreme danger, he said. "They just blow it out with an air hose."

There is no federal law on handling asbestos dust. The government simply says that employees have a right to work in a safe environment. The Occupational Safety and Health Administration (OSHA), which enforces this law, requires that the amount of asbestos dust in the air be below a certain limit. If OSHA inspectors find asbestos levels too high, it can require a company to take steps to reduce it.

Firms are first supposed to seek engineering remedies such as supplying vacuums and having exhaust systems installed. If that is not sufficient, masks should be provided.

The dangers of brake asbestos dust are so well known that the refusal to take proper precautions seems suicidal. At the Hudson Transit Lines bus garage in Mahwah, night foreman Ed McGuire said, "Usually we blow the dust out or wipe it with carbon tet." Carbon Tetrachloride is a solvent so highly carcinogenic that it has been banned from nonindustrial use.

Asbestos diseases have even struck wives who washed their husbands' contaminated clothes.

Asbestosis occurs when scar tissue builds up around the particles, making the lungs hard, inelastic, and unable to hold much air.

Smokers who are exposed to asbestos are eight times as likely to get lung cancer as other smokers.

Dr. Nicholson of Mount Sinai said he knew of four brake workers who had been hospitalized for asbestos-linked diseases. And he said, he had heard of many others.

Tests on those who work with insulation, many forms of which contain asbestos, have already shown a high rate of asbestosis and cancer. Researchers are now testing brake mechanics.

Sam Meyers, president of United Auto Workers Local 259 in New York City, said medical exams conducted by Sellkoff showed that some of the members of his union have been affected by exposure to asbestos.

Meyers said the union was taking measures to ensure compliance with safety rules. "If a worker in a union shop doesn't wear a mask, the union delegate is called."

He said workers must water down dust and use vacuums: "Brake dust is indiscriminate. It goes into everybody's lungs. If I'm working next to a guy and the dust emanates, I'm breathing it too."

Where to call for information

The federal Office of Cancer Communications says workers exposed to asbestos should not smoke and should get regular chest X-rays. A toll-free cancer information service number, (800) 523-3586, has been established to answer questions from the public.



Staff photo by Al Pagliano

Dave Fernicola wears a mask to guard against breathing asbestos dust.

FMSI 06881

DRAFT REPLY -- NOT SENT

Gentlemen:

This concerns the June 19 article in THE RECORD headlined "Deadly dust-particles from asbestos brakes."

As Secretary for the Friction Materials Standards Institute, a trade association representing most domestic manufacturers of brake linings, I would like to comment on this article.

It is a shame that the article as written, which accurately described conditions in local brake repair shops, had to be ^{headed} ~~headlined~~ with the scare headlines. The article might better have been headlined "Brake repair shops do not follow recommended precedures," but that wouldn't rate a page one headline.

Your headline indicated that there was to be documentation that there are deadly dust particles from asbestos brakes. The article centered on what are apparently unsatisfactory procedures ~~used~~ in local and regional brake shops. There is a ^{marked} ~~vast~~ difference in exposure ~~to asbestos dust~~ from brake lining where a shop drills, bevels, grinds or otherwise machines friction materials, and the shop that normally installs brakes without machining operations. The most hazardous procedure in most brake ^{repair} shops is the cleaning of dust from used brakes. While the Institute and most manufacturers recommend the use of respirators and high efficiency vacuum cleaning equipment, exposures in brake shops, the corner garage, the dealership and the mass merchandiser can in no way be compared with that in the municipal or industrial garage where friction materials are machined regularly throughout the day.

There are disagreements among knowledgeable people as regards the health hazard from brake lining wear debris. Some, such as Mount Sinai claim that these submicron particles can be hazardous to those exposed to that dust. Others indicate that a majority of the asbestos has been reduced to forsterite, a

FMSI 06882

relatively non-fibrous material. The health effects of exposure to used brake lining dust have not been evaluated, and will be difficult to evaluate. There *are essentially three levels of exposure:*
~~is a vast difference between exposures in~~ (1) an industrial atmosphere where raw asbestos is used, (2) the brake facility which machines brake linings, and (3) the garage which cleans out worn brakes.

Mount Sinai's example of workers contracting mesothelioma years after one day of exposure at shipyards is not relevant to the dust from brake linings. It is an entirely different type of dust, and the concentrations were extreme in the shipyards. The type of asbestos used in the shipyards (amosite and crocidolite) *not to my knowledge* has ~~never~~ been used in American made brake linings. The Mount Sinai example of the wife who washed her husband's contaminated clothes involved exposure to raw asbestos brought home from a factory. It has *little* ~~nothing~~ to do with those exposed to the dust from used brake linings. There is a *marked* ~~vast~~ difference from raw asbestos, which is quite fibrous, and the used brake lining wear debris which contains materials other than asbestos and in which the asbestos has been broken down primarily into ~~a material called~~ forsterite.

While Mount Sinai alleges that the submicron fibers in brake lining wear debris may be carcinogenic *this has not been documented.* ~~there is no documentation to this effect.~~ As a matter of fact, there is a study currently underway by the National Institute of Occupational Safety & Health (NIOSH) which is working closely with Mount Sinai in an attempt to document exposures to brake lining dust. If this study concentrates on commercial and municipal garages it will not document exposure of mechanics in the corner garage, dealer or mass merchandiser, where there is very little machining of brake lining materials.

We also do not agree with statements such as the following: "Workers can also use shop vacuums that sell for \$29 to \$129." Garages should use vacuums with high efficiency filter systems and I doubt that any can be bought at prices

such as that. An authority is quoted as saying that there are "no safety directives on handling asbestos." NIOSH, the Institute and several manufacturers have distributed recommended procedures for servicing brakes. I've enclosed copies of NIOSH and Institute recommendations. THE RECORD article states that "there is no federal law on handling asbestos dust." The regulations by the Occupational Safety and Health Administration (OSHA) based on authority granted by the Williams-Stieger Act certainly have the effect of a federal law as regards handling asbestos dust.

~~While we strongly advocate the use of respirators and good high filtration vacuum equipment in shops doing brake work, we suggest that your statement "the refusal to take proper precautions seems suicidal" is a scare statement in harmony with the headlines.~~

Brake shops should adopt the precautions recommended by NIOSH, the Institute, and several manufacturers. The use of scare headlines and unrelated "documentation" is not the way to promote safe procedures in the brake shop.

EWD/lmc

E. W. Drislane
Secretary