FILE NAME: General Motors (GM)

DATE: 1976 Mar 22

DOC#: GM070

DOCUMENT DESCRIPTION: Memo - Meeting with NIOSH and Others in Regard to Studies in the Brake Lining Operations Held in Cincinnati on Friday

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Johns-Manville

Internal Correspondence

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Date: March 22, 1976

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Copies.

Subject: MEETING WITH NIOSH AND OTHERS IN REGARD TO STUDIES IN THE BRAKE LINING OPERATIONS (NOT MANUFACTURE) HELD IN CINCINNATI ON FRIDAY, MARCH 19, 1976

A list of the attendees will be furnished together with a summary of the meeting sometime in the near future. Those present were members of NIOSH along with representatives of the brake lining manufacturing industry and also major users of brake linings. In addition, Dr. Selikoff was present. There were no union representatives. John Marsh represented Raybestos Manhattan and there were two men who represented another maker of brake linings. There was a lawyer (?) who represented the industrial hygiene and safety group of J. C. Penney and Dr. Krebs (General Motors) represented the large users of brake linings.

Selikoff repeated what he had presented before as indicating the need for a rather large-scale study of the brake lining mechanics population. His interest appeared to be along the lines of (1) an industrial hygiene examination of all kinds of workplaces in order to learn what the conditions actually are today. (He agreed that it would not be probable that they could reconstruct exposure histories from the past.) He thought that this information would provide grounds on which to choose cohorts for mortality studies sometime in the very near future. (2) He thought that there was enough known now about the various kinds of operations to permit cohorts to be chosen for study by X-ray and pulmonary function measurement at the present time. (3) He thought that any kind of mortality studies should be delayed until the information obtained from item (1) was finished. I am not entirely sure that I have given you the exact meaning of what he said since he spoke rather in generalities. When I asked him what the specific questions were to which these studies would be addressed, he said they were roughly as follows. First, an attempt to learn what the conditions are at the present moment, especially with regard to various kinds of work practices. Second, he thought the morbidity study would give an understanding of the magnitude of the problem and therefore would dictate the magnitude of the response necessary. Third, he is interested in knowing what the mortality pattern is because this would likewise indicate whether there is a problem and what needs to be done about it. On direct questioning, he appeared to agree that any effort at looking for dose-response relationships would be out-of-the-question from what he knew at the present time.



When I was asked what I thought the program might be, I said the following. First, I thought it was of the greatest importance to make a very careful study of the environment in terms of coexisting materials and asbestos fibers (with a strong effort to actually identify the nature of the fibers) and at the same time to make a scrupulous, detailed study of work practices as they represent the industrial hygiene findings. On this basis, in a relatively short period of time, work practices could be developed that would give the greatest likelihood and perhaps even guarantee compliance with current OSHA standards in the workplace.

Second, I thought it would be of the utmost importance to try to structure a cohort of individuals exposed solely to the inhalation of dust from the brake drums and free of any exposure to unaltered long asbestos fibers such as commonly occurred in these places in the past as a result of grinding new brake linings and sanding them in place. My interest in this was because the material from the brake drum dust is first of all the material that goes to the question of a public health hazard and second, because it comprises a short fiber population and hence would shed light on the controversy between those who think short fibers are hazardous and those who think they are not.

Third, I thought that since only chrysotile has been used in the brake linings in the automotive industry, a study of this industry might give an opportunity to look at industrial use of chrysotile in pure form (insofar as asbestos is concerned). I suggested doing this only in regard to mesothelioma, however. I indicated that I would give low priority to any health studies in this population other than a look at mesothelioma. I also indicated that I didn't think there was any chance to structure a study that would shed light on dose-response relationships and therefore I would have no reason to support any large-scale medical studies.

It is of considerable interest that Dr. Kraft raised a serious question as to whether NIOSH should have <u>anything to do</u> in the way of further studies and whether or not it wasn't primarily the task of OSHA. He thought this, particularly, since their resources were extremely small. I got the impression that he thought that if anything was done by them it would be along the line of industrial hygiene and work practice studies. Selikoff responded by saying that it was the responsibility of NIOSH to make the kinds of studies that he proposed and that if they didn't have enough money to do it they should say so. He expounded on this at rather great length.

Dement indicated that in the environment of the workplace the fibers were almost solely of the less than 5-microns-in-length variety.

Dr. Krebs indicated that in their automotive shops they now do no arcing or grinding or sanding of the replacement brake shoes and that the only source of fiber in the air would come from the removal of the wheels and the cleaning-out of the brake drums. These comments he said applied primarily

to passenger automobiles. He indicated that in contrast, in the truck and off-the-road kind of vehicle there still was a considerable amount of manipulation of the new replacement brake lining. His comments about the modern methods of replacing brake lining by shoes that did not need arcing or grinding was fully supported by the man from J. C. Penney and from the two industry groups that manufacture brake linings. The man from J. C. Penney gave a rather interesting account of their practices. He indicated that they had by rather intensive study developed work practices that would guarantee zero exposure to asbestos fiber if they were followed. He also indicated that the biggest problem was with the older employees who were used to doing it in another way and did not take kindly to the newer methods of work.

There were a number of other discussions of considerable interest but these can wait until the summary comes from NIOSH.

I did not come away with any strong understanding of what the program would be. I think there will be considerable pulling and hauling between the views of Dr. Kraft who appeared interested primarily in getting on with the job of producing the data needed to bring all of these kinds of operations into compliance with OSHA's standards and the desire of Dr. Selikoff to have his group embark on a large-scale health study of the current working population. I neglected also to indicate that Dr. Selikoff would like to do a large-scale study of the fibers to be found in the dust residue of lungs. He is under the impression that this would give a good picture of past exposure and permit some ability to differentiate between work practices and perhaps also predict what is going to happen to workers some years down-the-line. I voiced concern about this approach since I thought fibers would undergo change after entering and staying in the body for any length of time and I would mistrust the lung residues as being representative of the actual exposure or of the immediate post-exposure period (perhaps one year) when the biological phenomena are taking place.

It is of some interest that Dr. Selikoff indicated his laboratory had found asbestos and asbestos bodies in the sputum of persons long after they had no longer been exposed to asbestos. This doesn't seem to jibe with his often-expressed view that asbestos, when inhaled, remains in the lung forever.

There was a great deal of discussion about whether or not a cohort exposed solely to the residue of brake friction (short fibers) could be structured. Dr. Selikoff seemed to think it could be and insisted that even if it couldn't be perfectly done it could be done to some degree. I objected strongly because I felt that this would only cloud the issue. We had a rather lengthy exchange on the difficulty of structuring precise experiments when human beings are involved and past exposures are being looked at. He seemed to think that it was perfectly all right to go ahead with studies

that were not well-structured and then afterwards they would argue about what the studies meant. I didn't say so, but all I could think was that this is exactly what they had been doing for years. Insofar as I am concerned, if they look at something that is called a short-fiber-exposed or brake-drum-dust-only cohort that is anything less than that (namely, still exposed to some dust containing some long fibers), if disease is found in that cohort they will insist that it is the short fibers and not the long fibers that are responsible.

George W. Wright, M.D.

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