

Ohio
Workers' Compensation
Division of Safety & Hygiene
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June 29, 1990

Judy Spencer
Legal Section
Industrial Commission of Ohio
246 North High Street
Columbus, OH 43215

O.D.: 35440-22
Claimant: D. C. Farley (Dec'd.)
Company: Delco Moraine Div., GMC
1420 Wisconsin Blvd.
Dayton, OH

Dear Ms. Spencer,

D. C. Farley was a 64 year-old man who worked at the Delco Moraine Division of General Motors for approximately 30 years from 1950 till 1980, when he retired. During that time, he worked at a number of jobs. According to the file, he worked for the last 10-13 years in the brake manufacturing area.

During the years prior to 1970, there was a general lack of understanding of the health hazards associated with asbestos exposures. As a result, protective measures were few and seldom used. Employers often didn't provide protective equipment, and when they did, its use was not mandatory as it would be after 1971 when the safety and health regulations became effective. Even after that time, however, workers sometimes did not faithfully wear protective equipment provided, or observe the safest work practices. In the press for production and other requirements, employers were often less than strict in their enforcement of safety and health rules.

As a result, exposures to asbestos-containing materials used in regular production have continued, even though at very low levels. Because of the long latency period from exposure to onset of symptoms, the effects often do not show for some time. The response varies considerably from one worker to another. Also, the different forms of asbestos vary in their effects and severity. The responses vary from no apparent symptoms and slight x-ray markings, to mesothelioma, a rare tumor found in asbestos workers.

In a paper by Hughes and Weill, cited below, the following is found: "Mesothelioma, a primary pleural or peritoneal malignancy, is a rare disease, even among asbestos workers (a total of app. 1500 cases in the U.S. annually compared with approximately 130,000 lung cancers). Consequently, in

comparison with lung cancer, there is much less quantitative information for mesothelioma for establishing a dose-response relationship. As a result, of the very low incidence of this disease in the general population and conclusive evidence of an increased risk among asbestos workers (the only known occupational cause), any case occurring in a person with an industrial asbestos exposure is assumed to be a result of that exposure. However, virtually all studies of mesothelioma cases have included persons for whom no known asbestos exposure could be identified. Moreover, a substantial number of cases have been reported from rural Turkey (attributed to the indigenous occurrence of another fibrous mineral, erionite, a form of the mineral zeolite) and animal studies have demonstrated that fibers other than asbestos can induce mesothelioma. For these reasons, it is concluded that there are background cases of mesothelioma in the general population: i.e., cases with no relationship to asbestos exposure".

Another author (Murphy), also cited below, states "When mesothelioma occurs in an asbestos worker with a prolonged period from onset of initial exposure to asbestos, it is almost certain that a cause-and-effect relationship exists. In circumstances where exposure history is known, and mesothelioma has been found at autopsy, the average duration elapsed since initial exposure is over thirty years. When the exposure duration is much shorter, for example, less than ten years, the cause-and-effect relationship becomes more difficult to assess. An extremely important question arises as to the cause-and-effect relationship between mesothelioma and slight or indirect exposure to asbestos".

These same authors present evidence as to the difference in frequency of mesothelioma occurring in workers exposed to the different asbestos fiber types, and to mixtures of them. The incidence is lowest (12%) for exposures to chrysotile, and higher (66%) for exposures to mixed fibers. These were determined as percent mesotheliomas in excess lung cancer cases.

At Delco-Moraine, brake and other friction components are manufactured. Such components often contain chrysotile and/or amosite and can therefore be a source of exposure to these materials. When these products are manufactured from bulk materials, the probability of exposure is higher than in situations where the manufacturing is taking place elsewhere and assembly of pre-made parts is the major activity.

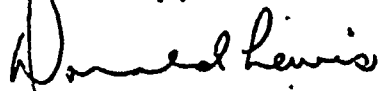
OD #984658-22

Cynthia Chadwell

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cause irritation and dermatitis. However, challenge testing with the suspected antigen can prove the absence of a cause-effect relationship if no reaction occurs upon exposure. If the samples used in the patch testing by Dr. Williams were in fact the samples obtained by General Motors from the very tools used by Ms. Chadwell, then work-relatedness could be denied. Otherwise, it is possible that Ms. Chadwell, being an atopic individual, could suffer reactions when exposed to any amount of hydraulic fluid.

Sincerely,



Donald Lewis
Industrial Hygienist

enclosures (2)

RECORDS CERTIFICATION

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Impfroye
SUPERVISOR, Microfilming Unit

Sandy Alltoe
Name (Camera Operator)

1-2-91
Date

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Date

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During the years prior to 1970, there was a general lack of understanding of the health hazards associated with asbestos exposures. As a result, protective measures were few and seldom used. Employers often didn't provide protective equipment, and when they did, its use was not mandatory as it would be after 1971 when the safety and health regulations became effective. Even after that time, however, workers sometimes did not faithfully wear protective equipment provided, or observe the safest work practices. In the press for production and other requirements, employers were often less than strict in their enforcement of safety and health rules.

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In summary, there may be a question of time from initial exposure to disease development in Mr. Farley's case. There seems little doubt that exposures occurred and the disease developed is obvious. The latency period may have begun at some time earlier than suggested in this claim. As the authors cited have pointed out, there is little argument of cause for mesothelioma when known asbestos exposures have occurred.

If I may be of further assistance in this claim, please let me know.

Sincerely,

James S. Ferguson
James S. Ferguson, CIH
Industrial Hygienist

References:

1. Hughes and Weill, Asbestos Exposure - Quantitative Assessment of Risk, Am. Rev. Respir. Dis., 133:5-13, 1986.
2. Murphy, Asbestos Related Disease: Difficulties in Diagnosing Occupationally-Related Illness, Frontiers in Medicine, Vol. 9, 1981.

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[Signature]
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