THE INDUSTRIAL COMMISSION OF OHIO

Richard F. Celeste
Governor

Division of Safety and Hygiene

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Suite 1173
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PLAINTIFF'S EXHIBIT

K-2029

July 27, 1989

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

RE: OL 34683-22
Elmer Eisenbee
Owens-Illinois Co.
Toledo, OH.

Attn: Judy Spencer

Dear Ms. Spencer:

On July 12, 1989, a visit was made to Owens-Illinois Company in an effort to provide Industrial Commission hearing officers with additional information to determine if a causal relationship exists between the claimant's occupational exposure and his medically diagnosed condition. The claimant has been diagnosed as having asbestosis.

The claimant was employed at Owens-Illinois' Duraglass center as a maintenance man for a total of 12 years until his retirement in 1978. His duties included operation and maintenace of steam boilers, as well as maintenance and repair of general plumbing and HVAC equipment. Prior to his employment at the Duraglass Center, the claimant worked as a plumber/pipefitter at several U.S. Army facilities, and was a water tender in the U.S. Navy for approximately four years.

During his employment, it is likely that the claimant was exposed to varying concentrations of asbestos when his duties involved the removal of asbestos-containing insulation. Asbestos was widely used as an insulant for boilers, valves and flanges, and until the 1960's was also used in hot and cold water pipes. Since both the Duraglass center and the Rossford Army depot were both constructed in the early part of this century, it would seem plausible that asbestos was present in the insulating materials used in these buildings, and that through routine maintenace activities some dust may have been generated. The composition/concentration of this dust, or duration of the claimant's exposure to this dust are impossible to determine. It is also necessary to consider non-occupational factors relative to the claimant's alleged occupational disease, especially his smoking history.

Asbestosis is a diffuse interstitial fibrosis resulting from the inhalation of asbestos fibers. Clinical findings include shortness of breath, especially on exertion, non-productive cough, pulmonary rales, and sometimes finger clubbing. The lung

becomes restrictively impaired, with reduced diffusing capacity.[2] The onset of asbestosis is loosely related to dust concentrations, fiber morphology, and the duration of exposure. The disease may develop fully in 7 to 9 years, although many pneumoconioses do not become evident until 20 to 40 years after first exposure.[3] Asbestosis is a progressive disease which, once established, will continue to progress even after exposure has ceased.[4] Diagnosis of asbestosis is based on characteristic radiological changes, symptoms, rales (inspiratory crackles), other clinical signs of a fibrosing lung disease, and a history of exposure to asbestos.[6]

According to the facsimile file, the claimant had a history of smoking equivalent to 75 pack-years. The effects of smoking on lung function are well documented; however, the specific effects in the claimant's case are not known. When considering the effects of environmental factors (especially occupational exposure) on lung function, it is important to consider the fact that smoking is a significant cause of respiratory dysfunction and impaired lung performance. It may, in fact, obscure the occupational factors unless careful allowances are made for its effects.[7] Smoking and asbestos exposure have a synergistic effect. Workers who smoke and are exposed to asbestos have a sixty-fold increase of lung cancer over non-smoking, non-exposed individuals. Cigarette smoking also increases an exposed worker's risk of death from asbestosis by 2.8 times versus a non-smoking worker.[8]

Based on the potential exposures to asbestos the claimant experienced during his employment, there appears to be a causal relationship between that employment and his medically diagnosed condition. Factors other than those occupational exposures, such as cigarette smoking, may have also contributed to the claimant's reported pulmonary dysfunction. The degree to which each of these factors is responsible is virtually impossible to determine.

Respectfully submitted,

Jeff Hutchins

Jeff Hutchins
Industrial Hygienist

JH

REFERENCES

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2. Merchant, J.A., et. al. eds., Occupational Respiratory Diseases, U.S. Dept. of Health and Human Services (1986), p. 287-8.

3. Proctor, Nick, et. al., Chemical Hazards of the Workplace, 2nd edition, J. B. Lippincott Co. (1988), p. 85.

4. National Institute for Occupational Safety and Health, "Criteria for a Recommended Standard - Exposure to Asbestos", Government Printing Office, DHEW(HSM) 72-10267 (1972).

5. Levy, Barry, et. al., Occupational Health, Little, Brown, and Co., (1983), p. 282-3.

6. Zenz, Carl, ed., Occupational Medicine - Principles and Practical Applications, Year Book Medical Publishers (1984), p. 121.

7. Morgan, et. al., Occupational Lung Diseases, W. B. Saunders Co. (1975).

8. Merchant, op. cit., p. 222.