



THE INDUSTRIAL
COMMISSION OF OHIO

Division of Safety and Hygiene

Corporate Plaza Office Building
6500 Poe Avenue, Suite 330
Dayton, Ohio 45414

Richard F. Celeste
Governor

PLAINTIFF'S
EXHIBIT
BRK-27

January 4, 1989

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

RE: OD# 31152-22
John Novak
General Motors
Inland Division

ATTN: Judy Spencer

Dear Ms. Spencer:

On December 22, 1988, I visited the Inland Division of General Motors located on West Third Street, Dayton, Ohio, for the purpose of investigating the facts surrounding Occupational Disease claim #31152-22. The claimant, Mr. John Novak, has filed with the Industrial Commission of Ohio alleging that workplace exposures to asbestos containing materials and toluene-2,4-diisocyanate (TDI) has contributed to his present physical condition.

WORK HISTORY

Mr. Novak states that his earliest work experience, prior to 1952, occurred in Germany and included bridge construction, wood cutting, and farming. After emigrating to the United States, the claimant worked at the Super Packing Company performing duties related to slaughtering and butchering from 1952 through 1965. Mr. Novak began employment with the Inland Division in 1965 and continued until his retirement in February, 1986.

Information on the claimant's work experience while at Inland is incomplete. According to the hearing transcript, the claimant's application, and company records, the following history is compiled:

1966 When the steering wheel operation ended, Mr. Novak was transferred to the Vandalia Plant and worked in an area making brake linings. This assignment lasted for about three or four months.

1966 The claimant worked at the Vandalia Plant in the department making instrument panel pads for about two or three years.

1969 - 1973 The employment history for this time period can not be documented. The plant began computerized recordkeeping of employment histories in 1974 which replaced the previous handwritten records. As a retiree, Mr. Novak's handwritten records were transferred to a vault and some of these records have been destroyed, according to Ms. Edna Scheuer, Attorney-at-Law representing the company. Since the claimant does not recall any other job duties or assignments during his employment, it is believed that his job duties during this time period was the same as recorded on the computer log after 1974.

1974 - 1986 Mr. Novak was employed in the Vandalia Plant as a ball joint welder until his retirement.

Mr. Thomas Jelenek, Administrator of Health and Safety for the Inland Division, stated that he began employment with Inland in 1976 and is not certain of industrial processes that occurred prior to that year. In the case of the brake lining process, Mr. Jelenek believes that an uncured (wet) composite of resin, fillers, and chrysotile asbestos was cut to size and formed in a mold. The cutting of the composite material was probably done in a "wet" state due to typical process design characteristics. As a result, the release of asbestos fibers would have been minimal. There is no corporate record of industrial hygiene sampling prior to 1976.

Mr. Jelenek further stated that the instrument panel process used only methylene bisphenyl isocyanate (MDI) and not TDI. The only process in the plant that used TDI was a seat forming operation in which TDI was mixed with MDI in a 25%/75% ratio (TDI/MDI). There is also no corporate record of industrial sampling in the instrument panel area during

fibers would be high. The amount of exposure to asbestos fibers suffered by the claimant is unknown.

The claimant also worked for approximately two or three years in a process using MDI. The amount of exposure to MDI suffered by the claimant is unknown.

The majority of the claimant's work experience at Inland was in ball joint welding which is documented for at least the final 12 years of his work history and may have occurred over the last 17 years.

TOXICOLOGY

Diisocyanates such as TDI and MDI can irritate the respiratory tract and are respiratory sensitizers, producing asthma-like symptoms in sensitized individuals with exposure at very low concentrations. Exposure to diisocyanates may result in chronic impairment of pulmonary function.

The toxic effects of all the isocyanates are roughly the same (mucous membrane irritation and sensitization) so the allowable exposure limits established by the Occupational Safety and Health Administration (OSHA) and by the American Conference of Governmental Industrial Hygienists (ACGIH) are the same. TDI is more volatile and therefore more hazardous than MDI which is of low volatility. The higher volatility of TDI means that TDI evaporates at a faster rate than MDI and is more likely to be inhaled than MDI given similar environmental conditions and concentrations of use.

Asbestos fibers enter the body by inhalation and ingestion. The fibers are retained in the tissues of the host long after cessation of exposure. Fibers may migrate to other organs following ingestion or deposition in the lung. Asbestosis and some cancers are associated with exposure to asbestos fibers.

Asbestosis is a progressive restrictive pulmonary fibrosis. Malignancies associated with asbestos exposures include carcinomas of the lung; mesotheliomas of the pleura and peritonium; and neoplasms of other sites.

formation, diffuse pleural thickening, calcification and pleural effusion -- each of which may occur alone or in any combination and are generally bilateral.³ The fibrotic changes occur as a result of the tissue scarring caused by the presence of asbestos fibers and, typically, the lower lobes are more severely affected. A small proportion of these fibers are encapsulated with an iron-protein coat and are known as "asbestos bodies". Large numbers of uncoated fibers are commonly found⁴ in the lung tissue of those who are occupationally exposed.

MEDICAL SUMMARY

According to medical records obtained by Ms. Scheuer from Dr. Merle Gibson, Inland Division company physician as well as the claimant's personal physician, the claimant has a history of medical treatment for pneumonia, sinusitis, and hypertension. Mr. Novak was hospitalized in June, 1985 for evaluation of a cough and associated fever. The consulting physicians included Drs. Gary Lutz, Donald Burns, and James Sill. The examination of Mr. Novak included a bronchial biopsy performed by Dr. Burns on June 5, 1985. The pathologist (signature illegible) reported, "Sections of the tissue designated biopsy of the right upper lobe bronchus reveal several tiny fragments of bronchus presenting no significant diagnostic abnormalities. There is no evidence of specificity of inflammation or of malignancy." None of the attending or consulting physicians referenced asbestos, diisocyanate, or any occupationally induced etiology.

The claimant received a medical screening provided by the United Rubber Workers International on October 18, 1986. This screening included pulmonary function tests and chest x-rays. Drs. B. Rama Rao and Krishan Bharadwaja made the following diagnosis:

1. Bilateral interstitial changes on both lung fields, consistent with asbestos exposure.
2. Restrictive lung defect, possibly due to the above.

Mr. Novak then consulted with the Greater Cincinnati Occupa-

3. Hepatosplenomegaly.

4. Varicose veins to the left.

At the request of Inland Division, the claimant was examined by Dr. David Wiltse who performed pulmonary function tests and chest x-ray on January 26, 1988. Dr. Wiltse writes, "Examination of his chest x-ray revealed no sign whatsoever of asbestos-induced lung or pleural disease. He does have a linear fibrotic streak in the left lower lobe which is seen on both the PA and lateral film. This does not in any way resemble the changes which we see with asbestos induced lung disease. There is no sign of interstitial pulmonary fibrosis, no sign of pleural plaques and no sign of diaphragm calcifications.

"His pulmonary function tests also looked superb. ... There is no restrictive defect present. ... Therefore, I find no evidence whatsoever of any asbestos induced lung disease or any lung disease at all."

It must also be stated that the claimant has a history of cigarette smoking although the exact quantity and year of cessation are not certain. Although statements by the claimant in the hearing transcript and statements in physician reports are conflicting, it may be gleaned from the information that the claimant smoked about 2 packs per day for approximately 20 years and quit in either 1966 or 1976.

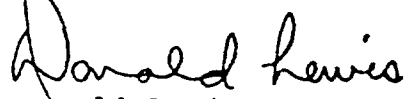
CONCLUSION

The claimant states in his application that he was occupationally exposed to asbestos and TDI. Mr. Jelenek stated that "TDI" has developed among employees at the Inland Division as a generic term for all diisocyanates without realizing the difference between MDI and TDI. The diisocyanate used in the operation where the claimant was employed (instrument panel) was MDI, according to Mr. Jelenek.

The duration of exposure to MDI was limited to a two or three year period, according to the claimant's statements. No data is available to quantify the concentration of

The medical statements made by Drs. Rao, Bharadwaja, and Kelly are in disagreement with the statements of Dr. Wiltse although all claim to be supported by the diagnostic evaluations of pulmonary function tests and chest x-rays.

Sincerely,



Donald Lewis
Industrial Hygienist

¹ (Criteria for a Recommended Standard . . . Occupational Exposure to Diisocyanates, NIOSH, 1978.)

² Documentation of the Threshold Limit Values, Fifth Edition, American Conference of Governmental Industrial Hygienists, 1986.

³ Fraser, M.D., Robert G., "Diagnosis of Asbestosis and Asbestosis-Related Pleural Disease by Imaging Methods", Chest, volume 89, number 4, April 1986, supplement page 366.

⁴ "A Physician's Guide to Asbestos-Related Diseases", Journal of the American Medical Association, volume 252, number 18, pages 2593-2597.

RECORDS CERTIFICATION

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