WRG 34

cc: H. M. Mining
H. A. Brown

PLAINTIFF'S EXHIBIT WRG-537

JOHNS-MANVILLE
ASBESTOS FIBRE DIVISION
P.O. BOX 159 • MANVILLE, N.J. 08835 • TELEPHONE 722-9000 • AREA CODE 201

← sent 7/7/70

June 19, 1970

RECEIVED
JUN 30 1970
CONSTRUCTION PRODUCTS DIVISION
H. A. B.

Mr. Peter Kostic
Safety Administrator
Industrial Chemicals Group
W. R. Grace & Company
62 Whitmore Avenue
Cambridge, Massachusetts 01240

Dear Pete:

Thank you very much for the information you gave me in our phone conversation of June 17, 1970. As I indicated to you, there has been some new data developed by Dr. J. C. McDonald, Department of Epidemiology and Health, McGill University. The article is entitled, "Research on Asbestos and Health: A Progress Report to Employers and Employees of the Quebec Asbestos Mining Industry".

I feel that Dr. McDonald's contribution is of considerable value and certainly reinforces my thinking that asbestos, with the proper environmental health safety precautions exercised, presents no hazard to either the people working with it or to the public in general. It is evident that the problem that develops with asbestos is one that is characteristic of all diseases coming from exposure to dust and is based on a time-dose relationship. It is also interesting to know that he comes to a semi-conclusion that there are other unknown factors involved in the creation of cancerous conditions, other than the mere presence of asbestos fiber.

Thanks again for supplying me with the official position of the W. R. Grace Company, particularly with respect to your Zonolite Division. If I run across any further information on the general subject, you may be assured that I'll pass it on to you.

Very truly yours,

Mike

H. G. Donovan
Product Marketing Manager

attachment

Research on Asbestos and Health: A Progress Report to Employers and Employees of the Quebec Asbestos Mining Industry

Just over three years ago a research team from the Medical Faculty at McGill University began a comprehensive study of the health of workers in the Quebec asbestos mines and mills, together with related investigations into the occurrence of certain types of lung cancer throughout Canada. The professional members of the McGill group were Drs Alison McDonald and Corbett McDonald (epidemiologists), Dr Margaret Becklake (physiologist), Mr Jack Siemiatycki (statistician), Mr Graham Gibbs (environmental hygienist), Dr Gisèle Fournier-Massey (physiologist) from the University of Sherbrooke and Mr Charles Rossiter (statistician) from the British Medical Research Council. The studies were supported by substantial grants from the Institute of Occupational and Environmental Health of the Quebec Asbestos Mining Association and the United States Public Health Service, and formed part of an international research programme co-ordinated by l'Union Internationale Contre le Cancer. Considerable assistance was also given by government departments in Quebec and Ottawa and by health departments, too numerous to mention, throughout Canada and in many parts of the United States.

The primary purpose of the studies has been to assess any risks of lung cancer that there may be in persons exposed to Canadian chrysotile asbestos, and at the same time to review all aspects of the health of workers in the Quebec mines and mills to ensure that it is efficiently protected. The influence of asbestos on health has been the subject of intense research in many parts of the world during the past few years, mainly because of the discovery that in certain circumstances exposure may be related to cancer of the lung and to mesothelioma, a cancer of the covering of the lung. The extensive literature on this subject was recently well reviewed by Dr George Wright of Cleveland in a paper published in the American Review of Respiratory Disease of October 1969. Questions of first priority in the Quebec study concern 1) the amount and type of asbestos exposure necessary to constitute any risk, and 2) whether the fault lies with asbestos alone or whether there are other associated factors. The research programme was completed on schedule and the results are now being subjected to statistical analysis. Several papers have already been published and others will continue to appear over the next year or so. In the light of preliminary findings it has been decided to continue the research programme for a further period of five years. This report on progress to date is presented to the industry - unions and management - so that all may know where matters now stand and the objectives for continued research.

Of greatest importance are the findings from a study of mortality and causes of death in some 12,000 employees in the industry born between 1890 and 1920. This showed that the 10% of employees who belonged to the highest category of dust exposure had an over-all death rate about 12% higher than the rest, mainly due to asbestosis, lung cancer and other respiratory complaints. The lung cancer death rate in this group was about three times higher than that of employees with minimal exposure. The 70% of employees who belonged to the lowest dust categories, however, had little or no increased mortality from these diseases. Two points must be emphasized: first, that the dust exposure experienced by these workers was mainly many years ago when environmental conditions in the mills were poorly controlled, and second, that the total number of cases attributable to asbestos was very small. Results so far suggest that at present

levels of dust exposure in the better mills today even 30 years' employment would probably not carry any measurable risk of lung cancer.

Next should be mentioned the findings from surveys throughout Canada of deaths due to mesothelioma. Careful search has shown that this cancer is fortunately very rare, only 165 fatal cases being recorded by pathologists in the entire country during the period 1960-63. Field inquiries confirmed that in a minority of cases there was a definite history of having worked with asbestos. Almost all these histories were of exposure in the manufacture and industrial application of the mine rather than in the production of fibre, and there was no increased number of cases whose contact was limited to residence in the neighbourhood of asbestos mines or mills. Taken together these two sets of results confirm the association between occupational exposure to asbestos and these two varieties of respiratory cancer. The findings are encouraging, nevertheless, in that they suggest that the risk is virtually confined to levels of dust exposure which are controllable, if not already controlled in most Canadian mines and mills.

Most of the remaining research has been concerned with the evaluation of old and new methods for the medical supervision of workers in the asbestos mining industry and has focused particularly on the use of chest radiography and on the potential contribution of modern procedures for measuring the function of the lungs. These studies have been on a very large scale and have involved (1) the development of an entirely new system of classification for the X-ray appearances of workers exposed to asbestos and other dusts, (2) the reading of at least one X-ray from some 15,000 workers by an international panel of radiologists and (3) surveys of lung function in which a representative sample of some 1,200 current employees was tested by a variety of techniques - some simple and some very complicated - each for nearly two hours. Full analysis of all this information will not be completed for several months but it has already been possible to describe for the first time the varied changes that may take place in the chest X-ray of workers with increasing amounts of dust exposure, and to examine the relation of these changes to the tests of function. Two simple function tests appear to be particularly sensitive and to warrant their use in the periodic examination procedure at least on a trial basis.

The research programme contemplated for the next few years will have three main and several supplementary objectives. First, it is considered most important to continue to record and analyse deaths and their cause to enable the present approximate estimate of what constitutes a safe level of dust concentration to be more accurately and surely defined. Next, it seems essential to maintain a close watch over the occurrence of suspected mesotheliomas in Canada to understand better their cause, since asbestos exposure has failed to explain most of them and is probably not the only factor even when present. Finally, in collaboration with the industrial clinics in Thetford Mines, Asbestos and perhaps elsewhere, it is planned to introduce a new system for the routine medical supervision of asbestos workers, based upon lessons learned during the past three years and to subject the procedure to critical evaluation.

In the work that has been conducted in the Quebec mines since 1966, the McGill team has received and is very appreciative of the great assistance given by workers, their families, unions, employers, physicians, pathologists and government departments. The success of future studies will continue to be dependent on similar collaboration.

J.C. McDonald, M.D.
Department of Epidemiology and Health
McGill University

27 February, 1970