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June 14, 1961

Mr. C. A. Pratt, Vice President
Western Mineral Products Co.
4723 Olson Memorial Highway
Minneapolis 22, Minnesota

Dear Cap:

In reply to your letter of June 12 I am happy to outline our past experience in regard to the effect of dust in our mill upon our employees' health. This is a very complex and confusing thing and one from which it is difficult to draw any conclusions. I will outline our history on this in the hopes that it may be of some help to you.

As background to our experience, you know we have always had the problem of dust in our milling and handling of vermiculite. This problem has received considerable attention over the years and we have attempted to take whatever steps necessary to control the dust intensity where there would be an exposure to employees. We have met with varying degrees of success in various places in the operation.

Many studies have been made of the dust and dust problem by different people over the years in analyzing the problem. All studies have shown that in the operation there is no free silica present, but the minerals found in the deposit are silicates, micas and asbestos-like minerals. Silicosis is caused by free silica and not by the silicates. Asbestos, however, is a cause of asbestosis, which has been a matter of concern. There is a relatively large amount of asbestos dust present in our mill and this is difficult to control.

From a report written in 1956 by an Industrial Hygiene Engineer, Division of Disease Control, Montana State Board of Health, I quote the following on the dust toxicity: "A review of the literature indicates that vermiculite or the dust from this material is not especially toxic and is generally included only as a nuisance dust. However, the asbestos dust in the dust in the air is of considerable toxicity, and is a factor in the consideration of reducing dustiness in this plant."

We have never had a known case of silicosis among our employees. We have had employees with pulmonary diseases which does not necessarily mean anything, because from any group of 100 plus people there will be similar cases. Something over two years ago one of our mill employees who had been with us approximately 19 years obviously was have respiratory trouble. His foreman tried several times to have him go to a doctor but was unsuccessful. Finally this man became so bad off that there was a question whether he should be working at all. We finally told him that we wondered whether he should be working because of his obvious physical condition and in fairness to him if he would go to the local doctor of his choice we would pay for his examination to get a report from the doctor. He went to one of the local doctors who diagnosed his case advanced pulmonary tuberculosis. He arranged for this man to be admitted to the State Tuberculosis Sanitarium in Galen, Montana. After a stay of 38 days at the sanitarium, this man was discharged and the final diagnosis of the man's case was, one, of "histoplasmosis", and two, of "questionable asbestosis." This man has never has never returned to work and we have tried to receive reports of results of physical examinations since his discharge but have never been successful even though this man has agreed to have the reports furnished to us and has signed the required release of information which medical ethics requires. During the time of his stay at Galen, of course, they conducted several x-ray and laboratory examinations and still only came up with a final diagnosis of "questionable asbestosis."

While Montana has for a good many years had an industrial accident law on the books, they never had an industrial disease law until the 1959 session of the legislature when such a law was passed. This law specified certain specific industrial diseases for which employers would be responsible. The only specified disease which we felt would apply to us was that of silicosis. The law stated that employers would not be responsible for anything which had been contracted by their employees prior to the date that the law became effective. However, they would be responsible for any contraction of disease after that date, or any aggravation of the conditions which existed in the employee due to industrial conditions which existed in a particular plant. In order to protect ourselves and place ourselves on record as to the condition of our employees as of the effective date of the law, we instituted a program whereby all of our employees would have x-rays at the local hospital.

We made arrangement with the hospital to schedule these x-rays and in turn we arranged to have the employees there at the stipulated time. All x-rays were interpreted by a Radiologist and a report written on each one.

There were 5 medical doctors on the staff at the local hospital at the time of this program in addition to the Radiologist, who actually lives in Kalispell and comes to Libby one day a week to interpret all x-rays taken at this hospital. We arranged a luncheon meeting with all of the doctors on the hospital staff, told them our problem and what we were after and asked their cooperation which was freely given. We polled all of our employees as to which doctor was their family physician so we would have that as a matter of record. After the x-rays had all been taken and interpreted, we went through the list and furnished each doctor with a list of the employees who had given us that particular doctor's name as their family doctor. Each doctor was then furnished with a copy of the report on those employees who were his patients. We then had all of our employees check with their own doctor to obtain the results of their x-ray examinations. The doctors agreed that this would be the best plan and they agreed to furnish the results of the examinations to the employees without any cost to them. Even in the cases where the x-ray showed everything to be normal, we had the employees check with their doctor. In this way Zonolite Company did not give any information to the employees as to their physical condition so we could not be responsible for or liable in any way for giving out information which might be construed as misleading.

In the case of the employees whose their x-rays interpretation showed some intra-thoracic pathology, it was up to the doctors to determine whether further tests or examination or treatment should be given. In the event that it was, this was to be at the employee's responsibility and expense.

After all of the results of these x-rays were in, we again met with the doctors and with the radiologist and discussed what our situation actually was in regard to pulmonary disease from our plant. The preliminary results of the interpretations made it appear that we had a high incidence of pulmonary disease among our employees. However, after the doctors had analyzed the results, the conclusion they came to was there was nothing to indicate that there was a higher incidence of pulmonary trouble among our people than there was among any other group in this geographical area. In other words, they felt that they could not come to any conclusion as to whether our mill operation presented an above-normal occurrence of respiratory trouble than occurs normally. The radiologist who had had industrial disease experience in the coal-mine fields of Indiana could offer nothing constructive in the way of a conclusion either.

In our analysis of the people who had intra-thoracic pathology of some kind, neither could we come to any conclusion. There were people where some condition of fibrosis or pulmonary emphysema showed up who had been with us only a very short period of time. Other people who had been with us over a period of a good many years and who worked in jobs where the dust exposure had been high showed up with entirely normal x-rays. There was no relationship to being a higher incidence among the old time employees than there was in the newer employees, so we could come to no conclusion either.

For quite a few years now our employees at the dry mill, loading station and other points in the operation where dust exposure is high have been required to wear respirators. The particular respirator which we furnish to our people is made by the Mine Safety Appliance Company and is called the "Dust-Foe." This respirator filter is one which has the approval of health authorities in this state and apparently those on the Federal level.

It has now been two years since the survey that we made by x-raying all of our people. At that time we discussed the possibility of again taking a blanket survey at some time in the future to compare results of people that were on the original survey and whether there had been any marked change when the follow-up was taken. However, we have not scheduled anything as yet. At that time it was the feeling of the Radiologist that a minimum of two years should elapse before the follow-up should be made, and it would probably be better to wait a longer period where there would be more likelihood of some conclusions showing up. It is probable, therefore, that in the next two or three years we may schedule a follow-up blanket survey so results can be compared.

Incidentally, there were 130 people on the payroll at the time that the original blanket x-ray was made.

Getting back to the problem of dust, there is of course asbestos present in the concentrates which we ship to our expanding plants. The amount of dust from this should be very small in the expanding process, however. It would seem that the greatest exposure to dust which would include the asbestos dust, to your people would be in the unloading of cars. There will be some help on this problem when we install "dedusting" units both in our mill and at our point of loading. Final design is now being made for these units and installation will be completed by the end of this summer.

These will not eliminate the dust problem in the concentrates, but we expect to cut it down considerably.

This has been a review of our situation. I hope it will be of some help to you. Our dust control problem receives continuing attention from our mill superintendent. It is one which we continually work on in trying to keep our ventilation as efficient as possible and whenever it is possible to make any improvements we try to do so. We usually receive a visit from an engineer from the State Board of Health about once a year and he usually makes recommendations to us which we try to carry out.

If there is any further help that we can give you, we will certainly be glad to try to furnish it. If there are any particular points on this discourse upon which I could elaborate further, please feel free to ask me to do so.

Sincerely yours

ZONOLITE COMPANY

By:

E. D. Lovick

EDL/jbr