February 8, 1962

THOMAS B. DONNEY

PITTSBURGH

MR. F. H. REGHER

VERNON WORKS

PLAINTIFF'S EXHIBIT
AL-331

Re: SAWING MARINITE

Reference is made to recent correspondence re the sawing of Marinite. We would like to comment on the recommendation to add additional ventilation to the saw used for cutting Marinite. Although there may be several good reasons for ventilating the saw, the decision to ventilate it cannot be made on the basis of its being a health hazard.

As I understand it, the material would be cut at infrequent intervals and probably would not involve more than 12 hours a month. Assume that the average dust concentration is 30 mppcf (this was the extreme of four conditions measured). We know that Marinite contains asbestos and diatomaceous earth; therefore a threshold limit of 5 mppcf is a reasonable one to apply. This figure represents a time-weighted average concentration to which nearly all workers can be exposed day after day without adverse effect to the majority of workers. A threshold limit value of 5 mppcf is merely a guide and must be used with a considerable amount of judgment. However, Marinite dust concentrations may exceed this value if the daily exposures are less than eight hours. (See the preamble to the ACGIH list of Threshold Values and Pages 2-4 and 2-5 of the Alcoa Industrial Hygiene Handbook).

If you have a concentration of 30 mppcf of a non-irritant dust having a threshold limit of 5 mppcf, it means that your workers can be exposed daily to the high level for a little over one hour per day with little likelihood of adverse effects. In a month, this

amounts to an allowable exposure of over 40 hours. The actual exposure that you have estimated is 12 hours per month, and therefore there is no need for concern about harming your employees. This is a conservative estimate of the situation, especially in view of our using the highest measured concentrations for the evaluation.

Granted 30 mppcf is a rather heavy dust loading and, quite possibly, some means of control may be desirable for other reasons, such as discomfort or nuisance value. If discomfort and nuisance are the only factors, perhaps simple respiratory protection would be sufficient.

It should be remembered that the threshold limit values are statistical values and that by using them as intended, we are able to protect the vast majority of the working population. By using TLV's as intended, flexibly and sensibly, we can be assured that injury to our employees is highly unlikely. This assurance is, I think, our most important objective. Another possible objective is that of being able to disprove alleged injury. Without strict adherence to the TLV's, this latter end will be difficult to gain, but the problem is likely to be almost as great even with strict adherence.

Although it may not be important in this case, a realistic appraisal of potential hazards and the judicious use of threshold limit values may be extremely important in other instances. Whether or not costly controls are to be installed may depend on a careful analysis of each individual problem.

TBD:DB T.B.Bonney

cc: T.I.McClintock, Vernon
H.R.Powell, Vernon
W.H.Sharp, Vernon
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