PLAINTIFF'S EXHIBIT WRG-749

CAMBRIDGE

10/19/81

TO: H. A. Eschenbach

FROM: H. H. Borgstedt

CC: O. M. Favorito
E. S. Wood

DATE: 8 October 1981

SUBJECT: Libby Epidemiological Study

WRG 000624

1. I feel that we now have a good and virtually complete picture of the pulmonary health of our current employees. Surveys by others should not lead to any surprises.

2. I think we should make an internal effort to define estimated exposures for everyone on the current list. This should be expressed in fiber/years. I realize that some of these estimates will have to be rather rough but NIOSH will make them and we should prepare our own estimates in advance, so that we can counter any miscalculations or misestimations NIOSH might come up with. In all of this, we should keep in mind the important break point of 1975.

3. NIOSH is optimistic as far as the availability of meaningful medical data goes, aside from chest films and spirograms prior to about 1978.

4. We should define internally our view of the quality and relevance of any internal or external control group that may be suggested to be used.

5. Apparently, you discussed the possibility of certain Grace employee populations as control groups for Libby. I could see a number of problems and pitfalls here and we should approach the suggestion with very great caution.

agreed, should be other mining populations

6. The technical details of the morbidity study are routine and unproblematic.

7. The mortality study is also more or less routine. I realize that we have a number of death certificates, but the scope of the proposed NIOSH study goes far beyond what we could do and we also will not have independent means or evidence to check their results.

8. NIOSH realizes that smoking is the one great complicating factor. We should not let them lose sight of this. I am not sure if we can contact former employees, their relatives or friends to get smoking histories.

9. As you know, the main purpose of the NIOSH study is to establish dose-effect relationships for vermiculite and for tremolite. While it may be possible to meaningfully assess the effect side of the equation, I feel that it will be virtually impossible to establish any kind of meaningful dose for either material, especially for the years before 1975. This is the single greatest weakness in the NIOSH proposal and it is based in large measure on unfamiliarity with the actual employment and working conditions in Libby.

H. H. Borgstedt

HHB/cs