To Tom

UNITED STATES GYPSUM COMPANY

300 WEST ADAMS STREET US CHICAGO 6, ILLINOIS

Tom will you help me on this

May 3, 1949

PLAINTIFF'S EXHIBIT USG 51

Dr. A. J. Vorwald
Director Trudo Foundation
Saranac Laboratories
Saranac Lake, New York

Dear Sir:

We would like to get your opinion as to the possible health hazard that might exist in the handling of perlite, for we are installing perlite rock processing plants and expanding plants at some of our gypsum operations.

According to our information, perlite is a volcanic glass, but there is no quartz present as disclosed by the Petrographic microscope. The chemical analysis of one of the deposits is:

SiO_2	71.54%
Fe_2O_3	1.40
Al_2O_3	13.44
CaO	1.06
MgO	0.87
K_2O	4.46
Na_2O	3.21
SO_3	0.02
Ignition Loss	4.04
	100.04%

The ore is reduced by crushing and screening to a size comparable to sand, and then subjected to high heat in a direct fired furnace and expanded, so while the ore may weigh 100 to 120 pounds per cubic foot before expansion, the expanded material weighs about 10 pounds per cubic foot. There is a certain amount of dust made in the handling of the ore, and in the expansion process.

From the work that you have done for the company in connection with gypsum and gypsum combined with silica, and also the work on asbestos and glass wool, I am of the impression that perlite would not be particularly harmful. The usual precautions to keep the amount of dust in the air down within the usual requirements for a nuisance dust of 50,000,000 particles per cubic foot would be all that would be necessary for us to do, but we certainly would appreciate your thoughts on the matter.

Yours very truly

UNITED STATES GYPSUM COMPANY

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J. W. Butler
Service Manager

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