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TO: E. S. Wood

DATE

April 19, 1977

FROM: Julie C. Yang

SUBJECT:

Tremolite Content
in ZONOLITE® Products

CC: H. C. Duecker
H. A. Eschenbach
F. W. Eaton
W. R. Hanlon
R. M. Vining
B. R. Williams
J. W. Wolter

C. C. Ou
S. C. Vaughan
File: 71-046

OBJECTIVE

The objective of this study is to determine the tremolite content in all ZONOLITE products made of both Libby and Kearney vermiculites. In a few cases, repetitious analyses were made for product used on job-sites, so that correlation can be made with the fiber counting results.

METHOD

When tremolite is determined from the product as received, in most products tremolite was not found by conventional analytical methods. The trace amount can be determined only when intensive concentration techniques are employed. Tremolite determinations are then made from the fractions by quantitative x-ray diffraction analysis and with the aid of petrographic microscopic examination.

1. Terra-Lite Vermiculites, Vervite, Redi-Earths and Metro-Mixes

The schematic method of analysis and the results have been reported in T&A 50110 with limited distribution. They are also reported here as shown in schemes 1, 2, and 3.

2. Scott Turf Builder

The method of concentration was very similar to that of Terra-Lite Vermiculite scheme #1, except in the water flotation step. A longer soaking period was needed to solubilize all the nutrients present, which was approximately 50% of the total weight.

3. ZIC, Attic Fill, Masonry Fill

Same concentration method as Terra-Lite (scheme #1).

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