Considerable dust (as high as 18,124,800 particles of less than ten microns per cubic foot) results from tapping the blocks into place. Samples taken during the entire operation had an average concentration of 6,881,760 particles per cubic foot. About 90% of these dust particles were slightly angular, crystalline in appearance and above five microns or less in size (as seen under the Konimeter Microscope); 5% were rounded opaque, ten microns or more in size; and 5% were opaque scale-like, five microns or more in size. Samples taken while applying asbestos sponge felt to a 12" steam line had a dust concentration as high as 23,788,800 particles of ten microns or less in size per cubic foot. The average was 12,574,080 particles per cubic foot. These dust concentrations are considered too high for working without adequate protection.

INSULATING A 750-POUND CRACKING COIL ACCUMULATOR: 6" x 36" blocks of Johns-Manville "Fire Felt" are first applied and plastered with extra AA Rubberoid Asbestos Cement and waterproofed with Johns-Manville "Insulkote". The dustiness of handling these materials has been considerably reduced since the manufacturers began shipping the "Fire Felt" in cardboard cartons containing thirteen or twenty blocks, and the plaster in hundred-pound paper bags. Samples taken during this operation had an average dust concentration of 4,502,880 particles, ten microns or less in size per cubic foot. About 75% of these dust particles were slightly angular in appearance, five microns or less in size; 10% were scale-like; opaque; and 15% were rod-like and fibrous.

INSULATING TREATING PLANT ACID SUCTION LINE: Sections of "Sponge Felt Pipe Cover" are cut to fit pipe lengths with an ordinary carpenter's hand saw. This operation produces on an average 821,280 particles of dust, ten microns or less in size, per cubic foot. Under the Konimeter Microscope all of these particles are slightly angular, crystalline in appearance, and five microns or less in size. The blocks or sections of the pipe cover are held in place by wrapping #16 gauge galvanized wire about each one.

INSULATING CRACKING COIL HOT OIL LINES: All hot oil lines at cracking coils are insulated with 2" asbestos tubing (85% magnesia and 15% asbestos) held in place by fine copper wire. Sections of the tubing are cut to fit particular areas by means of an ordinary carpenter's hand saw. This produces 7,788,000 particles of dust, ten microns or less in size, per cubic foot. Under the microscope, 90% of these dust particles appeared to be rounded crystalline and about three microns or less in size. Each section of tubing is pounded into place with the open hand so that it fits snugly against the pipe, and then wired into position. The dust produced from both of these operations averages about 3,379,520 particles per cubic foot. Under the microscope, approximately 80% or 90% of the dust particles appear crystalline, more or less angular, and five microns or less in size; the remaining 10% or more are rounded in appearance, and over ten microns in size.

DISMANTLING OR REMOVING OLD INSULATION: As a general rule, the dismantling or removal of old insulation is a more dusty operation than the application of new insulation. The old insulation is chopped or cut with a hatchet or small hand-axe, and pried loose and pulled off with the hands. This produces dust concentrations as high as 5,890,560 particles, ten microns or less in size, per cubic foot. In