Air Filter and Bulk Insulation Analysis
for Asbestos
Case 48106-3

Bell Laboratories

600 Mountain Avenue
Murray Hill, New Jersey 07974
Phone (201) 582-3000

July 6, 1979

PLAINTIFF'S EXHIBIT

SWB-181

P. A. Muller
New York Telephone
140 West Street
Room 2250
New York, New York 10007

Dear Pat:

The five air filter samples and four bulk insulation samples which were collected at Two World Trade Center on the 9th, 10th, 11th and 12th floors have been analyzed for asbestos.

The bulk insulation samples were analyzed by polarized light microscopy and X-ray diffraction. The results are given below.

2 WTC 9th Floor Sales Bulk

Polarized light microscopy revealed the presence of mineral wool but no asbestiform fibers were seen. The major crystalline materials noted by X-ray diffraction were calcite and gypsum. No chrysotile or amphibole forms of asbestos were seen. Therefore, this sample does not contain any asbestos.

2 WTC 10th Floor Hall

The principal fibrous material seen in this sample was mineral wool. No asbestiform fibers were noted. No chrysotile or amphibole forms of asbestos were seen by X-ray diffraction. Therefore, this sample does not contain any asbestos.

2 WTC 11th Floor Carrier

A small amount of chrysotile asbestos was observed by polarized light microscopy. The major crystalline materials

003801

CONFIDENTIAL

present as noted by X-ray diffraction were chrysotile, calcite, and gypsum. The presence of fibers and the crystalline structure of chrysotile means that this sample contains asbestos.

2 WTC 12th Floor Frame

Polarized light microscopy revealed the presence of mineral wool and a small amount of chrysotile. The major crystalline materials noted by X-ray diffraction were chrysotile, calcite, and a small amount of gypsum. The presence of asbestiform fibers and the crystalline structure of chrysotile means this sample contains asbestos.

Air Filter Analysis

The air filters were analyzed by counting all fibers greater than 5μm seen by phase contrast optical microscopy at 400x. This is the method recommended by the National Institute of Occupational Safety and Health (NIOSH). Based on the sampling data sheets and the optical microscopy counts the results were:

Sample	Volume Air (L)	Fibers Counted*	Fibers/cm^3 Uncorrected	Fibers/cm^3 Blank Corrected
2 WTC 9th FLR	390	8	.02	.01
2 WTC 10th FLR	180	2	.01	<.01**
2 WTC 11th FLR	210	3	.01	<.01
2 WTC 12th FLR	420	6	.01	.01
Blank	---	2	---	---

* 100 Microscope Fields (.011 mm^2/field) were counted. The filter area was 855 mm^2.

** < = less than