

R. Radhakrishnan, P.E.,
Director, Asbestos Control Program
D&P of City of New York

69 Murray Housing Corp
69 Murray Street
New York, NY 10007
7 March 2002

Dear Sir,

Persuant to my letter to you of
25 February 2002, enclosed is a material
analysis for our Penthouse from
November.

Sincerely,

Carol Northwick
Treasurer

212 349 0711

enc: Micro Ecologies Inc. report 11/15/01

2127554848

MICROECOLOGIES

077 P01 NOV 15 '01 12:55

micro ecologies inc.

Industrial Hygienists and Environmental Health Investigators

Fax Cover Sheet

Date: November 15, 2001

To: Harry DiGiovanni

Phone: 877-587-4768

Fax: 888-329-2935

From: William Sothorn

Phone: 212-755-3265

Fax: 212-755-4848

of Pages: 8

Following is the report related to the environmental evaluation performed at 69 Murray Street, PH.

micro ecologies inc.: 141 east 61st street, 2nd floor ♦ new york, ny 10021 ♦ tel: (212) 755-3265 ♦ fax: (212) 755-4848
website: www.microecologies.com ♦ e-mail: microecologies@aol.com

Industrial Hygienists and Environmental Investigators ♦ HVAC Hygiene ♦ Certified Hazard Abatement

2127554848

MICROECOLOGIES

077 P02 NOV 15 '01 12:56

micro ecologies inc.

Industrial Hygienists and Environmental Health Investigators

November 14, 2001

Del Bryant
69 Murray Street, PH
New York, NY 10007

Dear Mr. Bryant:

On October 30, 2001, we conducted a limited inspection of your residence located at 69 Murray Street, PH (9th, 10th, and 11th floors) in response to your concerns that residual levels of asbestos, fiberglass, and lead may be present on surfaces in the indoor and outdoor living areas following the post-disaster clean-up work performed by Branch Services. Following is a summary of our significant observations, test results, and recommendations:

- Surfaces throughout the indoor areas of the 9th, 10th, and 11th floors were generally free of residual loose dust. However, many surfaces contained an engrained soft-grease residue that we detected by wiping with white paper towels. This was brought to the attention of Chris Salliani of Branch Services, who agreed that his workers would re-wipe surfaces throughout the premises with surfactant wetted paper towels. Only surfaces on the outdoor terraces contained a substantial level of loose and engrained dust, including the table top in the southwest corner of the 9th floor, and the plants and planters throughout. These surfaces should be HEPA vacuumed and wet wiped with appropriate surfactants and disposable paper towels.
- "Micro-vac" vacuum samples were taken from five representative sites to examine in the laboratory for residual asbestos fiber (TEM method), fiberglass fiber (SEM method), and other particulates (PLM method). The enclosed EMSL laboratory reports indicate that at these five sites no detectable levels of asbestos were present, and that only trace levels of fiberglass and other particulates were present.
- Wipe samples were taken from five representative sites to analyze the lead content of the residual loose and engrained dust on these surfaces. The enclosed EMSL laboratory report indicates the following results:
 - Sample nos. Smith-2 and Smith-3 were taken from floor surfaces in the 9th floor foyer and the 10th floor living room, and indicated the presence of only background levels of dust, 32.0 ug/ft² and <10 ug/ft², respectively. These levels are within the Federal, State, and City regulatory levels for post-lead abatement clearance sampling of 40.0 ug/ft². This clearance level has recently been reduced from 100.0 ug/ft² to 40.0 ug/ft².

micro ecologies inc.: 141 east 61st street, 2nd floor • new york, ny 10021 • tel: (212) 755-3265 • fax: (212) 755-4848
website: www.microecologies.com • e-mail: microecologies@aol.com

Industrial Hygienists and Environmental Investigators • HVAC Hygiene • Certified Hazard Abatement

2127554848

MICROECOLOGIES

077 P03 NOV 15 '01 12:57

- * Sample nos. Smith-1 and Smith-5 were taken from outdoor surfaces, the 9th floor terrace table and the 10th floor metal deck, and indicated lead dust levels of 85.0 ug/ft² and 110.0 ug/ft², respectively. These levels are slightly higher than the clearance standards of 40.0 ug/ft². To be prudent, all surfaces on the terrace should be HEPA vacuumed, and floor surfaces wiped with Leditolv and then re-HEPA vacuumed. Table surfaces should be washed and rinsed. Then on a regular basis (weekly), outdoor surfaces should be HEPA vacuumed to prevent significant deposits from accumulating that may be tracked into the interior of the residence.
- * Sample no. Smith-4 was taken from the interior surface of the unlined galvanized air supply duct in the TV room on the 10th floor which contains high levels of loose particulates. This sample contains high levels of lead (16,000 ug/ft²). The rooftop air handler, the return duct, and the air supply ducts throughout the premise should be cleaned as described below under HVAC.

HVAC (heating, ventilation, and air conditioning) System

- The premises are heated and cooled by a forced air system comprised of a rooftop air handler (package unit) and related return and supply ducts. The interior surfaces of the air handler are insulated with fiberglass insulation which is severely damaged and deteriorated. Significant levels of loose fiberglass were visible in the unlined galvanized air supply duct inspected in the 10th floor TV room. Such conditions are likely to allow for the entrainment of invisible sized fiberglass particles into the air flow. The inhalation of fiberglass fibers is associated with chronic inflammatory responses at fiber deposition sites in the respiratory tract.

The upstream side of the evaporator coil contains substantial levels of debris, especially on the east side which is difficult to access, that is visibly characteristic of fungal and bacterial growth. To access the entire coil, the cutting and installation of a removable access door may be required.

Following is an outline of the hygienic maintenance work required in this unit:

- HEPA vacuum all interior surfaces of the unit.
- Carefully remove all deteriorated or damaged fiberglass insulation from accessible interior surfaces, observing environmental hygiene standards to prevent fiber and particle release.
- Encapsulate any deteriorated or damaged fiberglass insulation on non-accessible surfaces with Fosters 40/20, a low toxicity, anti-fungal encapsulant paint.
- Clean and disinfect condensate pan and condensate overflow pan.
- Check status of drain operation and unclog if necessary.
- Remove blower wheel assemblies if accessible, clean and reinstall.
- Disinfect all interior surfaces of the unit and the air intake area using a low toxicity disinfectant, as required.
- Reinsulate all areas of fiberglass removal using Armaflex or Low-E insulation affixed with stick pins and low toxicity adhesive.

microecologies inc: 141 east 61st street, 2nd floor ♦ new york, ny 10021 ♦ tel: (212) 755-3265 ♦ fax: (212) 755-4848
website: www.microecologies.com ♦ e-mail: microecologies@aol.com

Industrial Hygienists and Environmental Investigators ♦ HVAC Hygiene ♦ Certified Hazard Abatement

2127554848

MICROECOLOGIES

077 P04

NOV 15 '01 12:57

- * Treat all interior surfaces of the unit and the air intake area using a low toxicity biostat to prevent or retard fungal and bacterial regrowth.
- * Upgrade the filters to the high efficiency type (60% @ 3 micron ASHRAE) and properly fit.
- In addition, the following non-standard work should be performed:
 - * Install screws to secure main access panel of blower wheel/evaporator coil compartment.
 - * Install secure removable cover to filter compartment.
 - * The short run return duct running from the north wall of the 11th floor to the air handler should be HEPA vacuumed, wiped and/or encapsulated.
 - * The unlined galvanized air supply ducts throughout the premises contain high levels of loose particulate matter. When the air handler work recommended above is performed, the duct cleaning project should be thoroughly evaluated and a detailed proposal submitted.

We are highly qualified and experienced mechanical hygiene contractors and have performed hundreds of similar jobs. We would be pleased to provide references. If you would like us to perform the work recommended above, we estimate that this work will require 3 man days @ \$600/man day plus materials (approximately \$200) and tax.

Please call if you would like to discuss or if we can be of further service.

Sincerely,



William Speth
Industrial Hygienist and
General Manager

cc: Harry DiGiovanni

Enclosures

micro ecologies inc: 141 east 61st street, 2nd floor ♦ new york, ny 10021 ♦ tel: (212) 755-3265 ♦ fax: (212) 755-4848
website: www.microecologies.com ♦ e-mail: microecologies@aol.com

Industrial Hygienists and Environmental Investigators ♦ HVAC Hygiene ♦ Certified Hazard Abatement