



**Department of
Environmental
Protection**

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FROM: Comm. Christopher O. Ward

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COMMENTS: Pls. contact Comm. Ward
as soon as possible!!

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Susan L. Kupferman, Director
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Date: 1/14/2003

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Re: CONFIDENTIAL

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• Comments: I will place a call to you regarding the following documents.

Thank you,

Susan Kupferman

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MAYOR OFFICE OF OPERATION

1 212 788 1675 P.02/10

January 7, 2003

Ms. Helene Fromm
Chief of Staff
Mayor's Office of Operations
40 Worth Street, 4th Floor
New York, New York 10013

**Subject: Asbestos Micro-Vacuum Sampling of Office Equipment at
100 Church Street and 40 Worth Street
TRC Project Number 35052-0000-00015**

Dear Ms. Fromm:

TRC Engineers, Inc. (TRC) is pleased to present this report of Asbestos Micro-Vacuum Sampling of Office Equipment performed at your offices located at 100 Church Street and 40 Worth Street. These services were provided under TRC's contract with New York City Law Department.

We are pleased to be of service to the Mayor's Office of Operations concerning this project. If you have any questions or comments, please do not hesitate to contact us.

Sincerely,

TRC ENGINEERS, INC.

Mikhail Shindelman
Senior Project Manager

Edward A. Gerds, CIH, CSP
Vice President

H:\PROJECTS\35052 - NYC LAW DEPARTMENT\35052-0000-00015 (MICRO-VAC SAMPLING) REPORT- 35052-0000-00015.DOC

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OFFICE EQUIPMENT ASBESTOS MICRO-VACUUM SAMPLING REPORT

**100 CHURCH STREET, 40 WORTH STREET
NEW YORK, NEW YORK**

Prepared for:

**NEW YORK CITY MAYOR'S OFFICE OF OPERATIONS
40 Worth Street, 4th Floor
New York, New York 10013**

Prepared by:

**TRC Engineers, Inc.
1430 Broadway, 10th Floor
New York, New York 10018**

January 7, 2003

*Office Equipment Asbestos Micro-vacuum Sampling Report
100 Church Street and 40 Worth Street, New York, New York
TRC Project Number 35052-0000-00015*

January 7, 2003

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Table 2	Asbestos Micro-Vacuum (ASTM-5755) Results, 40 Worth Street

Appendix A

Laboratory Data and Chain of Custody Forms

*Office Equipment Asbestos Micro-vacuum Sampling Report
100 Church Street and 40 Worth Street, New York, New York
TRC Project Number 35052-0000-00015*

January 7, 2003

1.0 INTRODUCTION

TRC Engineers, Inc. (TRC) performed asbestos micro-vacuum sampling of Mayors Office of Operations office equipment located on the 20th floor of 100 Church Street and 4th floor of 40 Worth Street offices. Office equipment tested at 40 Worth Street has been moved to its present location from 100 Church Street after the World Trade Center (WTC) collapse. Representative sampling was performed on approximately ten percent of the office equipment that was impacted by the World Trade Center (WTC) collapse.

Office equipment tested at 100 Church Street consisted of:

- 6 copiers
- 2 CPUs
- 2 monitors
- 1 UPS
- 1 server
- 1 fax machine
- 1 plotter

Office equipment tested at 40 Worth Street consisted of:

- 3 CPUs
- 2 printers
- 1 scanner
- 1 projector
- 1 monitor
- 1 laptop computer
- 1 copier
- 1 fax machine

Micro-vacuum sampling was performed on December 12 and 13, 2002 by Mr. Mikhail Shindelman of TRC. A total of twenty-eight asbestos micro-vacuum samples including three blanks were collected from 100 Church Street and 40 Worth Street offices.

Office Equipment Asbestos Micro-vacuum Sampling Report
100 Church Street and 40 Worth Street, New York, New York
TRC Project Number 35052-0000-00015

January 7, 2003

2.0 PROCEDURE

Asbestos dust samples were collected using American Society for Testing and Materials (ASTM) Test Method D5755-95 for asbestos microvacuum Sampling. The samples were analyzed using indirect analysis (Filter Sample Analysis) of dust by Transmission Electron Microscopy (TEM) for asbestos structure number concentration. The analyses was performed by EMSL Analytical, Inc. which is an independent New York State Department of Health (NYSDOH) and Environmental Laboratory Approval Program (ELAP) certified laboratory located in Manhattan, New York. Laboratory data and chain of custody forms are attached in Appendix A of this report. Results of sampling are presented in Tables 1 and 2. Table 1 presents results for 100 Church Street, Table 2 presents results for 40 Worth Street. Results were compared to the post-cleaning individual sample target concentration of less than 10,000 asbestos structures per square centimeter (str/cm²) and a geometric mean concentration of less than 1,000 str/cm², which were established as clearance criterion for this project. A total of twenty-five asbestos micro-vacuum samples were collected from the internal components of representative office equipment (approximately ten percent).

3.0 RESULTS

Five (5) micro-vacuum samples of fourteen (14) collected from the 20th floor at 100 Church Street office on December 12 and 13, 2002 and five (5) samples of eleven (11) collected from the 4th floor at 40 Worth Street Office on December 12, 2002 indicated elevated concentrations of asbestos in dust.

Results for samples collected inside the equipment at 100 Church Street were detected in the following concentrations (in str/cm²):

- Copiers less then (<) 1,596 to 118,078
- CPUs < 997 to 17,020
- Monitors 1,330 to 1,834,990
- UPS < 1,330
- Server 15,358
- Fax machine 4,787
- Plotter 29,918

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*Office Equipment Asbestos Micro-vacuum Sampling Report
100 Church Street and 40 Worth Street, New York, New York
TRC Project Number 35052-0000-00015*

January 7, 2003

Results for samples collected inside the equipment at 40 Worth Street were detected in following concentrations (in str/cm²):

- CPUs 7,978 to 136,960
- Printers < 2,128 to 6,383
- Projector < 1,596
- Scanner 4,787
- Monitor 136,960
- Laptop computer 19,547
- Copier 51,061
- Fax machine 3,191

The geometric mean for the samples collected at 100 Church Street was 6,311 str/cm², and the geometric mean for the samples collected at 40 Worth Street was 11,561 str/cm².

4.0 RECOMMENDATIONS AND CONCLUSION

Results of equipment sampled at both locations exceed the clearance criterion for this project which was set at the geometric mean target concentration of less than 1,000 str/cm² for the sample set. Individual samples were also found to exceed the 10,000 str/cm² individual sample target concentration. The elevated levels indicate that dust within the equipment is contaminated with asbestos. TRC recommends that the equipment be disposed of or cleaned using High Efficiency Particulate Air (HEPA) vacuuming and wet wiping methods, as appropriate. TRC recommends cleaning of equipment be performed by a licensed asbestos abatement contractor under controlled conditions to prevent potential employee exposure to dust during cleaning. TRC can provide a short-list of licensed abatement and disposal contractors, if requested.

TRC recommends the cleaning or disposal proceed as quickly as possible. In the interim, TRC recommends that maintenance and disassembly of impacted equipment be limited to asbestos trained individuals. Additionally, if equipment cannot be taken out of service prior to cleaning/disposal, TRC recommends representative breathing zone asbestos air sampling and analysis via Transmission Electron Microscopy (TEM) be conducted to determine airborne concentrations resulting from use of equipment.

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***Office Equipment Asbestos Micro-vacuum Sampling Report
100 Church Street and 40 Worth Street, New York, New York
TRC Project Number 35052-0000-00015***

January 7, 2003

Appendix A

Laboratory Data and Chain of Custody Forms

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Attachments

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DEP COMM. OFFICE

Fax: 718-595-3525

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