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November 26, 2019

Ms. Diane Czarnecki
Industrial Hygienist
Facilities Management Division
GSA Public Buildings Service – Heartland Region
2300 Main Street
Kansas City, Missouri 64108

**RE: Goodfellow Federal Center - Mercury Air Sampling Investigation
Building – #103
4300 Goodfellow Boulevard
St. Louis, Missouri 63120
OCCU-TEC Project No. 919103**

Dear Ms. Czarnecki:

Thank you for the opportunity to assist the General Services Administration (GSA) with the Resource Conservation and Recovery Act (RCRA) metals air sampling investigation of the above referenced buildings located at the Goodfellow Federal Center, in St. Louis, Missouri. OCCU-TEC understands that the purpose of the investigation was to provide sampling data regarding pre-existing conditions noted in investigation reports previously prepared for the facility. The following report summarizes the sample collection activities and the laboratory analytical results of the samples submitted.

On November 6, 2019, Missouri licensed air sampling professionals from OCCU-TEC conducted air sampling for the presence of airborne particulate mercury in Building #103.

The proposed sampling scheme, the numbers of samples, sample distribution and general methodology was developed based on previous investigation methodology and in coordination with the GSA. Sample locations were determined by OCCU-TEC field personnel while on-site.

Resource Conservation and Recovery Act Metals Air Sampling

Air sampling for particulate mercury was collected on 37-millimeter (mm) cassettes with 0.8 micrometer (μm) mixed cellulose ester (MCE) filters using powered air sampling pumps in accordance with National Institute for Occupational Safety and Health (NIOSH) sampling methods. Samples were collected in a method sufficient to collect a minimum sample volume of 300 liters. Air samples were collected in accordance with NIOSH Method 7300 and submitted under chain-of-custody to Scientific Analytical Institute, Inc. (SAI), for independent analysis of mercury in accordance with NIOSH Method 6009. SAI is accredited by the American Industrial Hygiene Association (AIHA) utilizing the Industrial Hygiene Proficiency Analytical Testing (IHPAT) program. SAI’s IHPAT Laboratory ID is 173190.

Results of the air sampling are summarized in the table below by identifying the range of results for Building #103 for the metal sampled. **Samples with a “<” sign indicate that the results were below the laboratory’s method reporting limit.**

| Analysis | Lowest Concentration ($\mu\text{g}/\text{m}^3$) | Highest Concentration ($\mu\text{g}/\text{m}^3$) |
|--------------|---|--|
| Mercury (Hg) | <0.057 | <0.057 |

Results of the air samples collected indicate Building #103 contained concentrations of particulate mercury below the laboratory’s method reporting limit and the OSHA Permissible Exposure Limit (PEL). Sample location diagrams are attached is Appendix A. Sample locations and the corresponding results are summarized in the laboratory analytical results that are included in Appendix B. The air sampling professional’s Missouri Lead license is in included in Appendix C.

It should be noted that this air sampling investigation was only a screening of airborne particulate mercury and should not be interpreted or used to determine compliance or non-compliance with OSHA personnel monitoring regulations.

OCCU-TEC appreciates the opportunity to work with GSA on this project. If you have any questions concerning this report, or if we may be of any additional service, please feel free to contact us.

Sincerely,

(b) (6)

Jeff Smith,
Senior Project Manager

(b) (6)

Kevin Heriford
Environmental Operations Manager (QA/QC)

Appendices:

- A: Sample Location Diagrams
- B: Laboratory Analytical Results and Chain of Custody Documentation
- C: Qualifications and Licenses

Appendix A

Sample Location Diagrams



(b) (7)(F)

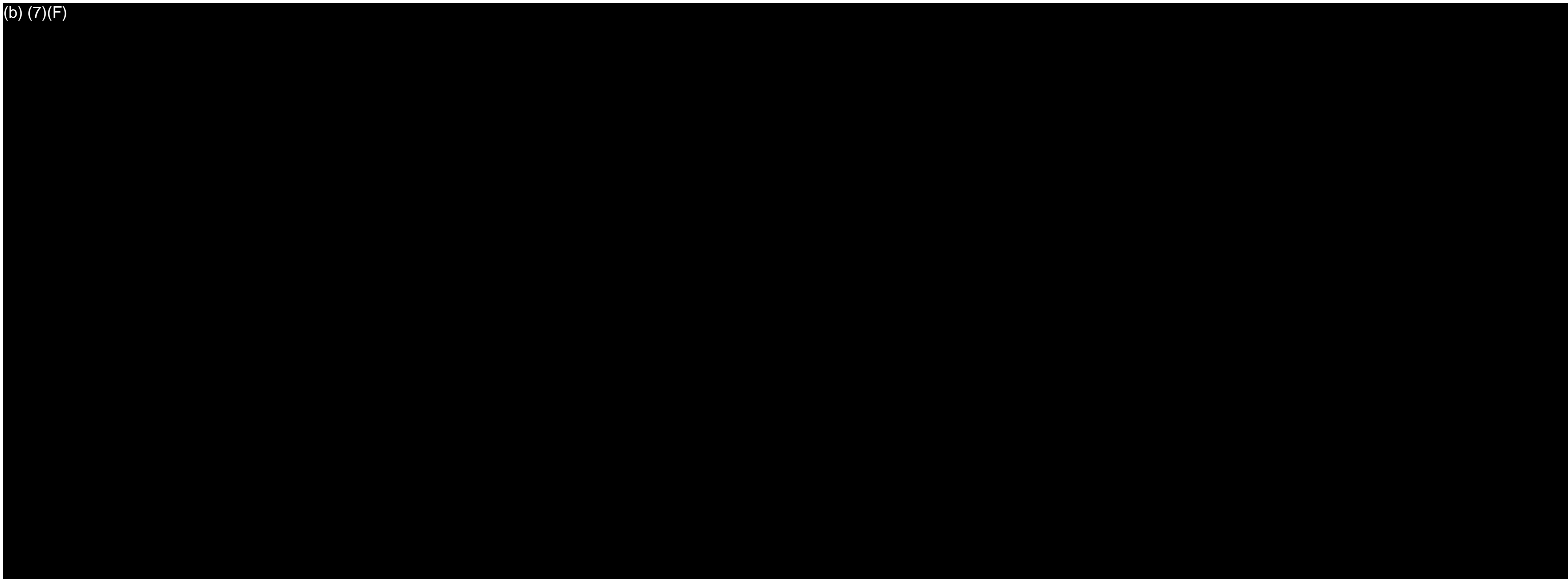


Figure 1: Air Sample Location Maps—Bldg. 103—First Floor
Goodfellow Federal Center
4300 Goodfellow Boulevard
St. Louis, Missouri
Project Number: 919103

(b) (7)(F)

Figure 1: Air Sample Location Maps—Bldg. 103—Second Floor

Goodfellow Federal Center
4300 Goodfellow Boulevard
St. Louis, Missouri
Project Number: 919103

Appendix B

Laboratory Analytical Results and Chain of Custody Documentation





Airborne Mercury Concentration by Cold Vapor-Atomic Absorption (CVAA)

NIOSH Method 6009/OSHA ID-140



| | | | | | |
|-----------------|--|--------------|----------------|-----------------------|------------|
| Client: | OCCU-TEC Inc. 2604 NE Industrial Dr #230 North Kansas City, MO 64117 | Attn: | Austin O'Byrne | Lab Order ID: | 71928711 |
| | | | | Date Received: | 11/11/2019 |
| Project: | 919103.001 | | | Date Reported: | 11/18/2019 |
| | | | | Page: | 1 of 1 |

| Sample ID | Description | Sampling Type | Volume (L) | Concentration (µg) | Concentration (µg/m ³) |
|---------------|-------------------|---------------|------------|--------------------|------------------------------------|
| Lab Sample ID | Lab Notes | | | | |
| 103-Hg-01 | Field blank | Particulate | - | < 0.025 | - |
| 71928711HGA_1 | | | | | |
| 103-Hg -02 | Lower level – F2 | Particulate | 436.8 | < 0.025 | < 0.057 |
| 71928711HGA_2 | | | | | |
| 103-Hg -03 | Lower level – H38 | Particulate | 436.8 | < 0.025 | < 0.057 |
| 71928711HGA_3 | | | | | |
| 103-Hg-04 | Upper level – H29 | Particulate | 436.8 | < 0.025 | < 0.057 |
| 71928711HGA_4 | | | | | |
| 103-Hg -05 | Upper level – B35 | Particulate | 436.8 | < 0.025 | < 0.057 |
| 71928711HGA_5 | | | | | |

Melissa Ferrell

Analyst

(b) (6)

Lab Director

This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. Scientific Analytical Institute participates in the AIHA IHPAT program. IHPAT Laboratory ID: 173190. Unless otherwise noted blank sample, correction was not performed on analytical results. The reporting limit for an undiluted air sample is 0.01µg total Mercury. Analytical uncertainty available upon request.



Scientific Analytical Institute, Inc.

4604 Dundas Dr. Greensboro, NC 27407
 Phone: 336.292.3888 Fax: 336.292.3313
 www.sailab.com lab@sailab.com

Lab Use Only
 Lab Order ID: 71928711
 Client Code: _____

| Company Contact Information | |
|---|--|
| Company: OCCU-TEC Inc. | Contact: Austin O'Byrne |
| Address: 2604 NE Industrial Drive, Suite 230 North Kansas City, MO 64117 | Phone ☐: 816-602-0819 Fax ☐: 816-994-3417 |
| | Email : aobyrne@occutec.com |

| Billing/Invoice Information | Turn Around Times [^] | |
|--|--|---|
| SAME <input checked="" type="checkbox"/> | 90 Min. <input type="checkbox"/> | 48 Hours <input type="checkbox"/> |
| Company: | 3 Hours <input type="checkbox"/> | 72 Hours <input type="checkbox"/> |
| Contact: | 6 Hours <input type="checkbox"/> | 96 Hours <input type="checkbox"/> |
| Address: | 12 Hours <input type="checkbox"/> | 120 Hours <input checked="" type="checkbox"/> |
| | 24 Hours <input type="checkbox"/> | 144 ⁺ Hours <input type="checkbox"/> |
| | [^] TATs not available for certain test types | |
| PO Number: | | |
| Project Name/Number: 919103.001 | | |

| Industrial Hygiene Test Types | |
|--|-------------------------------------|
| Silica as Alpha Quartz (XSZ)* With Respirable Dust (XDZ) | <input type="checkbox"/> |
| Silica as Cristobalite (XSC)* With Respirable Dust (XDC) | <input type="checkbox"/> |
| Silica as Tridymite (XST)* With Respirable Dust (XDT) | <input type="checkbox"/> |
| Silica as Alpha Quartz, Cristobalite, Tridymite (XSA)* With Respirable Dust (XDA) | <input type="checkbox"/> |
| Silica Bulk (XSI)* | <input type="checkbox"/> |
| Bulk Phase ID/Whole Rock (XUK) | <input type="checkbox"/> |
| Total Dust NIOSH Method 0500 (GTD) | <input type="checkbox"/> |
| Respirable Dust NIOSH Method 0600 (GRD) | <input type="checkbox"/> |
| PCM NIOSH 7400-A Rules (PCM) | <input type="checkbox"/> |
| B Rules (PCB) <input type="checkbox"/> | TWA (PTA) <input type="checkbox"/> |
| TEM NIOSH 7402 (Asbestos) (TNI) | <input type="checkbox"/> |
| Hexavalent Chromium (OSHA ID-215) (Note if from spray paint operations) | <input type="checkbox"/> |
| Metals (NIOSH 7300) (Specify Metals Under Comments) | <input type="checkbox"/> |
| Other <small>NIOSH 6009 - Mercury Air Samples</small> | <input checked="" type="checkbox"/> |
| <i>* Modified NIOSH 7500/OSHA ID 142</i> | |

| Sample ID # | Description/Location | Volume/Area | Comments |
|-------------|----------------------|-------------|---------------------|
| 103-Hg-01 | Field Blank | N/A | Mercury Air Samples |
| 103-Hg-02 | Lower level - F2 | 436.8 | Mercury Air Samples |
| 103-Hg-03 | Lower level - H38 | 436.8 | Mercury Air Samples |
| 103-Hg-04 | Upper level - H29 | 436.8 | Mercury Air Samples |
| 103-Hg-05 | Upper level - B35 | 436.8 | Mercury Air Samples |
| | | | Mercury Air Samples |
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| | | | |

Accepted
 Rejected

Total # of Samples _____

| Relinquished by | Date/Time | Received by | Date/Time |
|-----------------|-----------|-------------|-------------|
| (b) (6) | 11/8/19 | (b) (6) | 11.11.10:38 |

Appendix C

Qualifications and Licenses



**STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES**

LEAD OCCUPATION LICENSE REGISTRATION

Issued to:

Austin G. O'Byrne

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

Lead Risk Assessor
Category of License

Issuance Date: **12/10/2018**
Expiration Date: **12/10/2020**
License Number: **181210-300005671**



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Randall W. Williams, MD, FACOG
Director
Department of Health and Senior Services

Lead Licensing Program, PO Box 570, Jefferson City, MO 65102