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November 22, 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 – #103F 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 4, 2019, Missouri licensed air sampling professionals from OCCU-TEC conducted air sampling for the presence of airborne particulate mercury in Building #103F.

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 (μ m) 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 #103F for the metal sampled. Samples with a "<" sign indicate that the results were below the laboratory's method reporting limit.

Analysis	Lowest	Highest
	Concentration	Concentration
	$(\mu g/m^3)$	$(\mu g/m^3)$
Mercury (Hg)	< 0.057	< 0.057

Results of the air samples collected indicate Building #103F 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,



Jeff Smith, Senior Project Manager



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. 103F Goodfellow Federal Center 4300 Goodfellow Boulevard St. Louis, Missouri Project Number: 919103





Appendix B Laboratory Analytical Results and Chain of Custody Documentation





103F-Hg -03

71928704HGA_3

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

NIOSH Method 6009/OSHA ID-140



< 0.057

2604 N		TEC Inc. E Industrial Dr #230 Kansas City, MO 64117 .001	Attn: Austin O	ttn: Austin O'Byrne Lab Order ID: Date Received: Date Reported: Page:		Date Received: 11/11/201 Date Reported: 11/18/201		l: 11/11/2019 l: 11/18/2019
Samp	le ID	Description	Sampling	Volume	Concentration	Concentration		
Lab Sam	nple ID	Lab Notes	Туре			(µg/m ³)		
103F-H	Hg-01	Field Blank	Particulate	-	< 0.025	-		
71928704HGA_1								
103F-H	103F-Hg -02Lower level - C5Particulate436.8		< 0.025	< 0.057				
71928704	4HGA_2							

Particulate

436.8

Melissa Ferrell

Lower level – E12

(b) (6)

< 0.025

Analyst

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 (336) 292-3888



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 1192870	4
Client Code:	

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

Billing/Invoice Information	Turn Around Times [^]		
SAME	90 Min.	48 Hours	
Company:	3 Hours	72 Hours	
Contact:	6 Hours	96 Hours	
Address:	12 Hours	120 Hours	
	24 Hours	144 ⁺ Hours	
	TATs not availabl	e for certain test types	
PO Number:			
Project Name/Number: 919103.001			

Industrial Hygiene Test Typ	oes
Silica as Alpha Quartz (XSZ) [®] With Respirable Dust (XDZ)	
Silica as Cristobalite (XSC)* U With Respirable Dust (XDC)	
Silica as Tridymite (XST)*	
Silica as Alpha Quartz, Cristobalite, Tridymi (XSA) [®]	-
Silica Bulk (XSI)*	
Bulk Phase ID/Whole Rock (XUK)	
Total Dust NIOSH Method 0500 (GTD)	
Respirable Dust NIOSH Method 0600 (GRD)	
PCM NIOSH 7400-A Rules (PCM)	
B Rules (PCB) TWA (PTA)	
TEM NIOSH 7402 (Asbestos) (TNI)	
Hexavalent Chromium (OSHA ID-215) (Note if from spray paint operations)	
Metals (NIOSH 7300) (Specify Metals Under Comments)	
Other NIOSH 6009 - Mercury Air Semples	×
* Modified NIOSH 7500 OSHA ID 142	

Sample ID #	Description/Location Field Blank	Volume/Area	Comments Mercury Air Samples
103F-19-02	Lower level - C5	436.8	Mercury Air Samples
103F-H0203	Lower level - El2	436-8	Mercury Air Samples
7			Mercury Air Samples
			Mercury Air Samples
			Mercury Air Samples
		\C	cepted
		<e< td=""><td>ected</td></e<>	ected
Relinquishe	d by Date/Time	Received by	Total # of Samples Date/Time

	Relinquished by	Date/Time	Received by	Date/Time
(b) (6)		11/18/19	(b) (6)	11.11 10:30
		14/0//1		

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

(b) (6)

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

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