

Smith Management Group



Sustainability
Safety/Industrial Hygiene
Information Technology
Environmental Management

September 23, 2010

Mr. Frank Finley
Operations Manager
Paradigm Engineers & Constructors
P.O. Box 436223
Louisville, KY 40253

**SUBJECT: Lead Sampling Results
 Limited Assessment - Fire Protection Line
 Bldg. 1 - Sub-Basement, Butler VAMC
 Butler, PA**

Dear Mr. Finley:

Introduction

Smith Management Group (SMG) has completed limited lead-based paint (LBP) sampling at the above referenced property in accordance with our agreement dated September 3, 2010. Site assessment activities took place on September 10, 2010 in the sub-basement of Building 1 on the Butler VAMC campus located in Butler, Pennsylvania.

The LBP assessment was limited to the fire protection piping located in the sub-basement of Bldg. 1 and designated by Paradigm Engineers and Constructors. The identified fire protection line is being removed and replaced as part of the Standpipe/PIV Project.

Lead-Based Paint Assessment

The fire protection piping located in the sub-basement of Bldg. 1 contains painted surfaces that are in fair condition overall with minimal areas of peeling or localized damage. SMG collected a total of five (5) paint samples from observable sections of the pipe which contained two types of coatings, a very light green paint (faded) and a darker green coating. Each section (visible section) comprised approximately 50-75 linear feet for a total of approximately 150 linear feet which was visible at the time of the assessment. Of the five (5) samples collected, three samples were analyzed as wipe samples and two samples had a sufficient quantity to be analyzed as regular paint chips. The coating on the fire protection line is extremely thin and ingrained within the surface of the pipe which made sampling a sufficient quantity for the laboratory extremely difficult. As such, wipe sampling was utilized to allow the lab sufficient material to process. Laboratory analysis of the two (2) paint chip samples and the three (3) wipe samples indicated

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that lead was present in each of the samples. The generally accepted threshold of what is considered lead-based paint is >0.5% lead or 5,000 milligrams per kilogram (mg/kg). The wipe sample results are reported in micrograms per wipe (ug/wipe). Sample number BVA-05PC collected from the darker shade of green paint had the highest lead concentration which was approximately 116,000 mg/kg or 11.6% lead. The remaining four (4) samples had concentrations of lead ranging from 1770 mg/kg (0.17%) to 4,600 ug/wipe.

Lead-based paint is defined by organizations such as the Environmental Protection Agency (EPA) and the U.S. Department of Housing and Urban Development (HUD) as any paint, varnish, stain, or other applied coating that has 5,000 milligrams per kilogram (mg/kg) or more of lead. Equivalent units of measure utilized for classifying lead-based paint include 1 milligram per square centimeter (1mg/cm²), 5,000 parts per million (ppm) and 0.5% by dry weight. However, the principal regulatory agency applicable to the Butler VAMC, the Occupational Safety and Health Administration (OSHA) does not have a threshold level of what determines a coating to be lead-based or not, only the fact that it contains lead makes it applicable to the lead construction standard (29 CFR 1926.62). Analytical results with chain-of-custody are provided as an **Attachment**, and are represented as milligrams per kilogram and micrograms per wipe sample.

SMG utilized TestAmerica Analytical Testing Corporation for analysis of paint samples collected at the Butler VAMC, Bldg. 1 facility. Each of the paint samples were analyzed by TestAmerica using EPA method SW846 6010B.

Regulatory Review

The HUD guidelines established by Title X are intended to complement regulations, other directives, and other guidelines to be issued by HUD, EPA, OSHA and the Centers for Disease Control and Prevention (CDC). The Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X) directs EPA to promulgate regulations aimed at fulfilling the purposes of Title X. Title X amended the Toxic Substances Control Act (TSCA) by adding a new Title IV. Under TSCA section 402 the EPA must develop a final regulation to govern the training and certification of individuals engaged in lead-based paint activities, the accreditation of training programs and standards for conducting lead-based paint activities (specifically target housing and child-occupied facilities). Section 403 of TSCA requires the EPA to develop and promulgate health-based standards which would provide the basis for identifying hazardous levels of lead in dust, soil, and paint.

The above mentioned regulations pertain primarily to "Target Housing" and Child-Occupied Facilities". The primary Government regulating agency that would have authority over identified lead-based paint in the Butler VAMC facility is the Federal Occupational Safety and Health Administration (OSHA). In 1978 the Occupational Safety and Health Administration (OSHA) promulgated a final lead standard for general industry which is identified in 29 CFR 1910.1025. This standard applies to all occupational exposures to lead except for those in the construction industry and for agricultural operations. In summary it establishes that, "All surfaces shall be maintained as free as practicable of accumulations of lead" as well as establishing airborne exposure limits that



when exceeded trigger worker protection, recordkeeping, and training. The final rule for lead exposure in construction is identified in 29 CFR 1926.62. Workers engaged in routine maintenance work are covered by the general industry standard. Maintenance workers engaged in interim control or abatement work are covered by the construction standard. The standard would also apply to any construction work (renovations, demolitions) where an employee may be occupationally exposed to lead.

Hazard Evaluation

If paint contains lead equal to or greater than 0.5% by weight, it is considered to be lead-based paint under the Lead-Based Paint Poisoning Prevention Act. Paint that has lead just below that standard can still pose a potential health hazard. Deteriorated paint with 0.4% lead would be more hazardous than paint with 0.5% lead that remained intact. Any facility component that contains deteriorated lead-based paint is a lead hazard and should be monitored and maintained accordingly to prevent the generation of lead dust.

Site Specific Hazards

Although lead-based paint was determined to be present at or above 0.5% (5,000 mg/kg) on only one (1) of the five (5) samples collected, both shades of coatings should be treated as lead-based paint and handled according to proper VAMC protocols for renovation/demolition projects. The fire protection line being replaced in the sub-basement of Bldg. 1 contains painted surfaces that are in fair condition overall with some isolated areas of peeling primarily due to aging and environmental conditions. Occupational exposures to lead-based paint at the Butler VAMC facility are unlikely at this time due to the location and condition of the paint. Any facility component with deteriorated paint that is not tested and does not have a painting history similar to a tested component should be considered a lead-based paint hazard until confirmatory testing can be conducted.

As OSHA does not have a threshold for lead concentration in defining what is considered lead-based paint proper hazard communication should occur between the facility owner and any construction or demolition contractors that may be coming into contact with the identified lead-containing coatings. An example would be for Paradigm or Butler VAMC to inform the contractors that the coatings were tested and found to contain lead in concentrations above the threshold utilized by HUD and EPA as well as OSHA. Prior to conducting work at the site you shall provide written confirmation that you have been informed of the potential hazard and will address any OSHA worker protection issues accordingly either through a health and safety plan or an approved lead abatement plan. In this specific case the preferred abatement method would be to remove the fire protection piping intact and dispose of the piping in an intact state with only minimal disturbance of the coatings.



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The high lead concentration found in the darker shade of green paint should be monitored with regards to condition and maintenance and outside contractors conducting work on this equipment should be properly notified and proper work procedures implemented to reduce the potential for exposure.

Historical data regarding airborne exposures at these low concentrations of lead found in the identified coatings typically indicate exposures well below OSHA limits when conducting routine construction or renovation work. The actual type of work impacting the coating itself (sanding, grinding, etc.) plays an important part in the determination of potential airborne lead concentrations.

SMG appreciates the opportunity to provide our services to you on this project. Should you have any questions on this or any other environmental health and safety matter please do not hesitate to call.

Sincerely,

SMITH MANAGEMENT GROUP



Kevin M. Chaplin

Branch Mgr./Senior Industrial Hygienist

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Client Smith Management Group (9878)
1860 - B Williamson Court
Louisville, KY 40223
Attn Elizabeth Swasko

Work Order: NTI1114
Project Name: PA Site
Project Number: Butler, PA / VAMC
Received: 09/14/10 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NTI1114-01 (BVA-01 - Wipe) Sampled: 09/10/10								
Total Metals by EPA Method 6010B								
Lead	3390	L2	ug/Wipe	2.50	10	09/16/10 19:59	SW846 6010B	10I2138
Sample ID: NTI1114-02 (BVA-02 - Wipe) Sampled: 09/10/10								
Total Metals by EPA Method 6010B								
Lead	4600	L2	ug/Wipe	2.50	10	09/16/10 20:02	SW846 6010B	10I2138
Sample ID: NTI1114-03 (BVA-03 - Paint Chips) Sampled: 09/10/10								
Total Metals by EPA Method 6010B								
Lead	1770		mg/kg	0.994	1	09/15/10 17:46	SW846 6010B	10I2062
Sample ID: NTI1114-04 (BVA-04 - Wipe) Sampled: 09/10/10								
Total Metals by EPA Method 6010B								
Lead	2060	L2	ug/Wipe	2.50	10	09/16/10 20:18	SW846 6010B	10I2138
Sample ID: NTI1114-05 (BVA-05 - Paint Chips) Sampled: 09/10/10								
Total Metals by EPA Method 6010B								
Lead	116000		mg/kg	2000	1000	09/16/10 11:13	SW846 6010B	10I2062

Client Smith Management Group (9878)
1860 - B Williamson Court
Louisville, KY 40223
Attn Elizabeth Swasko

Work Order: NT11114
Project Name: PA Site
Project Number: Butler, PA / VAMC
Received: 09/14/10 08:00

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Total Metals by EPA Method 6010B							
SW846 6010B	10I2062	NT11114-03	0.50	100.00	09/14/10 14:58	JWD	EPA 3051A/6010
SW846 6010B	10I2062	NT11114-05	0.25	100.00	09/14/10 14:58	JWD	EPA 3051A/6010

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PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Total Metals by EPA Method 6010B						
10I2062-BLK1						
Lead	<0.594		mg/kg	10I2062	10I2062-BLK1	09/15/10 16:25
10I2138-BLK1						
Lead	<0.150		ug/Wipe	10I2138	10I2138-BLK1	09/16/10 19:50



THE LEADER IN ENVIRONMENTAL TESTING

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Client Smith Management Group (9878)
 1860 - B Williamson Court
 Louisville, KY 40223
Attn Elizabeth Swasko

Work Order: NT11114
Project Name: PA Site
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CERTIFICATION SUMMARY

TestAmerica Nashville

Method	Matrix	AIHA	Nelac	Pennsylvania
SW846 6010B	Paint Chips			
SW846 6010B	Wipe	X	N/A	

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DATA QUALIFIERS AND DEFINITIONS

L2 Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below acceptance limits.
M7 The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
R2 The RPD exceeded the acceptance limit.
ND Not detected at the reporting limit (or method detection limit if shown)

METHOD MODIFICATION NOTES