

Industrial Hygiene Project Report, Lead Air Monitoring, WSSC Temple Hills Blasting

Submitted to: Kathleen Anderson
D&M Painting Corporation
1500 Amity Ridge Road
Washington, PA 15301

August 16, 2017
update

1.0 Background and Executive Summary

Industrial Hygiene Air Sampling was conducted at the WSSC Temple Hills water tank blasting project on **August 11, 2017**. Four area air samples were collected during various activities associated with this project. This project report summarizes assessment methodologies and analytical results from the sampling.

2.0 Methodologies

Samples were collected at the four perimeter corners of the property to verify that lead particulates generated by blasting activities are not migrating to adjacent properties.

The samples were collected using low flow air sampling points at a flow rate of 2.5 liters per minute for 480 minutes, for a total air volume of 1,200 liters. The sampling pumps were pre and post calibrated using a rotameter calibrated against a primary standard. The samples were hand delivered under chain-of-custody to AMA Analytical Services of Lanham, Maryland for analysis via NIOSH Method 7082 (Flame AA). AMA Analytical Services is an American Industrial Hygiene Association (AIHA) accredited analytical laboratory.

3.0 Analytical Results

The analytical results of the four samples collected on August 11, 2017 are summarized in Table 1. The results are presented by sample number, sample location and duration, and the analytical result. As indicated by the data in Table 1, the results of the four samples were below the analytical limit of detection (indicated by a less than symbol in the result). Exposure to lead in construction is regulated by the Occupational Safety and Health Administration via 29 CFR 1926.62. The standard establishes an Action Level and Permissible Exposure Limit (PEL) of 30 and 50 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$). Both the Action Level and Permissible Exposure Limit (PEL) are based on an

Gary Morris, MS, CIH, CSP
Environmental, Health and Safety Management Consulting

eight-hour time-weighted average and apply to worker exposure (as opposed to area samples). Also Section 02091, Paragraph 1.6.H of the WSSC project specifications establishes an ambient project action level of 30 µg/m³. Sample results above this limit require modification of abatement methods to bring concentrations to below 30 µg/m³.

Two personal air samples were collected on [REDACTED] and [REDACTED], but both sample collection devices dislodged from the workers while working in the containment, and as such, were discarded.

Table 1 –Air Sampling Results

Sample Number	Location and Duration	Analytical Result
TH81117-1	NE Perimeter Fence 480 Minutes	<2.5 µg/m ³
TH81117-2	SE Perimeter Fence 480 Minutes	<2.5 µg/m ³
TH81117-3	SW Perimeter Fence 480 Minutes	<2.5 µg/m ³
TH81117-4	NW Perimeter Fence 480 Minutes	<2.5 µg/m ³

Sincerely,

Gary Morris, MS, CIH, CSP