

**JULY 2011 AREA AIR AND SUB-SLAB AIR QUARTERLY MONITORING REPORT
BUILDING 4 – REVISION 1.0**

GENERAL SERVICES ADMINISTRATION

BANNISTER FEDERAL COMPLEX

1500 EAST BANNISTER ROAD

KANSAS CITY, MISSOURI 64131

Terracon Project Number: 02107144

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The following is a brief synopsis of this report. For a complete copy of this entire report please contact:

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3rd Quarter Building 4 Air Sampling Report - Revision 1.0

This report presents the results of area air and sub-slab air sampling conducted for the General Services Administration (GSA) at the Bannister Federal Complex (BFC), specifically Building 4, located at 1500 East Bannister Road, Kansas City, Missouri. Sampling activities were performed in July 2011. Terracon Consultants, Inc. (Terracon) conducted area air and sub-slab air monitoring in general accordance with the Tetra Tech EM, Inc. (TetraTech) Work Plan and Quality Assurance Project Plan for Site Investigation and limited Removal Action Activities (Work Plan/QAPP), dated September 1, 2010, addendum dated November 24, 2010, and Terracon's proposal dated September 30, 2010. Area air and sub-slab air sampling were conducted in Building 4 to assess for the presence of volatile organic compounds (VOCs).

Conclusions

Sub-slab air monitoring results indicate concentrations of vinyl chloride, trans-1,2-DCE, cis-1,2-DCE, TCE and PCE above the Site-Specific Screening Levels in sub-slab sampling locations SS1 and SS2. The identified VOC concentrations in sub-slab samples collected were not identified in either the crawlspace or indoor/outdoor samples collected at concentrations above the Site-Specific Screening Levels.

Cumulative cancer and non-cancer health risks were evaluated for the site by adding the cancer risk, based on maximum contaminant concentration detected, for the 3rd quarter samples collected. The 3rd quarter calculated cancer cumulative health risk for maximum concentrations for the crawlspace, indoor air, and outdoor air VOCs was

calculated at 7.61×10^{-6} which is within the EPA acceptable cancer risk range of 1.0×10^{-6} to 1.0×10^{-4} .

The calculated cumulative non-cancer Hazard Quotient (HQ) for the crawlspace, indoor air, and outdoor air VOCs was calculated at 5.03×10^{-1} which is below the EPA acceptable Hazard Index (HI) of 1.

Comparison of sub-slab data to crawlspace and indoor/outdoor data indicates a slight correlation between sub-slab and indoor air concentrations; however, contaminant concentrations do not exceed either the Site-Specific Screening Levels or non-cancer risk level HQ of 0.1, or are within the target cancer risk range (1.0×10^{-6} to 1.0×10^{-4}) that is considered acceptable by the EPA.

Contaminant migrations may exist through perforations in the building foundation slab. However, based on identified contaminant concentrations at levels below the applicable Site-Specific Screening Levels identified in the indoor air and crawlspace samples collected, it does not appear that contaminants are migrating to the employee-occupied spaces located above the crawlspace at concentrations above the Site-Specific Screening Levels.

Recommendations

Based on the results of the July 2011 sub-slab, crawlspace, indoor, and ambient air sampling event, Terracon recommends continued quarterly air sampling for VOCs, per the site specific Work Plan/QAPP.