UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

JUN 0 8 2012

Mr. Christopher Powers
Project Manager
General Services Administration
1500 East Bannister Road
Kansas City, Missouri 64131

Dear Mr. Powers:

The U.S. Environmental Protection Agency has reviewed the October 2011 Area Air and Sub-Slab Air Quarterly Monitoring Report-Buildings 1 and 2 Report-Revised, dated April 3, 2012, for the General Services Administration Bannister Federal Complex, located at 1500 East Bannister Road, Kansas City, Missouri. This report adequately addressed the comments in our email dated April 26, 2012, and therefore, we are approving this report.

The conclusions and recommendations presented in this report are provided as an enclosure to this letter. Regarding your recommendation for continuing to conduct air sampling for volatile organic compounds on a semi-annual basic, we would like to meet with you to discuss your plans. If you have any questions, please contact me at (913) 551-7566 or by e-mail at Hammerschmidt.ron@epa.gov. If I am not available, please contact Ron King, Technical Lead, at (913) 551-7568.

Sincerely,

Ronald F. Hammerschmidt, Ph.D.
Director
Environmental Services Division

Enclosure

Conclusions from the October 2011 Area Air and Sub-Slab Air Quarterly Monitoring Report Buildings 1 and 2 Report-Revised, dated April 3, 2012

Conclusions

1. Polychlorinated biphenyls (PCB) analytical data was not obtained for the indoor air sample U17 (Department of Defense/DOD Office of Inspector General) as DOD would not allow access due to their need for undisturbed operations during the sampling period (PS-1 samplers operate at levels greater than normal ambient noise levels).

2. The October 2011 sub-slab air monitoring results indicated concentrations of trichloroethylene (TCE) at levels above the site specific screening levels (SSSLs) in sub-slab samples W8 (Department of Commerce/DOC Warehouse Shower Room), E23 (GSA Warehouse – Shower Room), and U19 (Fan Room 3B).

3. TCE was detected above the SSSLs in indoor air samples W17 and associated duplicate sample (Former Mail Room), R17 (Veterans Affairs/VA Office Space) and associated duplicate sample, U17 and associated duplicate sample (Department of Defense/DOD Office of Inspector General), U19 (Fan Room 3B), Y18 (FEMA Office Space), AA17 (North Freight Elevator), K8 (Former Shower Room), W8 (Department of Commerce/DOC Warehouse Former Shower Room), W8-RRF (DOC Warehouse Rest Room - Female), W8-RRM (DOC Warehouse Rest Room - Men), W8-WH (DOC Warehouse), X6 (DOC Warehouse), U4 (DOC Warehouse), OD8 (Pump Room), P25 (Utility Room-Caged Area), R16 (South Freight Elevator), and R16-EXT (Outside of South Freight Elevator).

4. Vinyl chloride was detected above the SSSL in indoor air samples R16 (South Freight Elevator) and R16-EXT (Outside of South Freight Elevator).

5. Dichlorodifluoromethane was detected at concentrations above the SSSL in indoor air samples AA17 (North Freight Elevator) and Y18 (FEMA Office Space).

6. Chloroform was detected at a concentration above the SSSL in indoor air sample R16-EXT (Outside of South Freight Elevator).

7. PCE was detected at a concentration above the SSSL in indoor air sample R16-EXT (Outside of South Freight Elevator).

8. Cis-1,2-dichloroethene was detected at a concentration above the SSSL in indoor air sample W17 and associated duplicate sample (Former Mail Room), U19 (Fan Room 3B), and R16 (South Freight Elevator).

9. Benzene was detected above the SSSL in each of the indoor air samples collected.

10. Ethylbenzene was detected at a concentration above the SSSL in indoor air samples AA17 (North Freight Elevator) and P25 (Utility Room-Caged Area).

11. The concentration of m- and p-xylenes was above the SSSL in indoor air sample AA17 (North Freight Elevator).

12. The concentration of n-nonane was above the SSSL in indoor air sample K8 (Former Shower Room - Hall).

13. The concentration of 1,2,4-trimethylbenzene was above the SSSL in indoor air sample AA17 (North Freight Elevator).

14. Although some volatile organic compounds (VOCs) were detected at concentrations exceeding screening levels based on carcinogenic risks, these concentrations correspond to cancer risk values within the EPA's target cancer risk range of 1.0×10^{-6} to 1.0×10^{-4} that is generally considered acceptable by the EPA.

15. The identified dichlorodifluoromethane concentrations, with the exception of those detected at AA17, are below the non-cancer hazard index (HI) of 1, which is considered acceptable by the EPA. The identified TCE concentrations, with the exception of those detected at W17 and associated duplicate sample, U19, and AA17, are below the non-cancer HI of 1, which is considered acceptable by the EPA.

16. Because access to sample locations R10 (Passenger Elevator), R16 (South Freight Elevator), AA17 (North Freight Elevator), W8 (Department of Commerce/DOC Warehouse Shower Room), E23 (GSA Warehouse - Shower Room), and K8 (Former Shower Room) is limited and exposure to workers is intermittent and of short duration, the VOC concentrations detected in the indoor air samples collected from these locations were compared to Short-Term SSSLs.

17. Indoor air sample AA17 exhibited a dichlorodifluoromethane concentration above the Short-Term SSSL.

18. Sample locations did not exhibit total cancer risks greater than the EPA acceptable cancer risk range of 1.0×10^{-6} to 1.0×10^{-4} for VOCs.

19. Sample locations exhibited total non-cancer risks greater than the EPA acceptable non-cancer HI of 1 at sample locations W17 and associated duplicate sample (Former Mail Room), AA17 (Northern Freight Elevator), U19 (Fan Room 3B), R17 and associated duplicate sample (Veterans Affairs/VA Office Space), and U17 (Department of Defense/DOD Office of Inspector General).

20. The October 2011 sub-slab air monitoring results did not indicate concentrations of PCBs above either the sample detection limits and/or the SSSLs.

21. The October 2011 indoor air monitoring results indicated concentrations of all other PCBs (non-dioxin like) above the SSSLs for indoor air samples W17 and the associated duplicate sample (Former Mail Room), K8 (Former Shower Room), P25 (Utility Room – Caged Area), U19 (Fan Room 3B), AA17 (Northern Freight Elevator), E23 (GSA Warehouse Former Shower Room), OD8 (Pump Room), and R17 Duplicate (Veterans Affairs/VA Office Space).

22. Although PCBs were detected at concentrations exceeding screening levels based on carcinogenic risks, these concentrations correspond to cancer risk values within EPA's target cancer risk range of 1.0×10^{-6} to 1.0×10^{-4} that is generally considered acceptable by the EPA.

23. The calculated carcinogenic cancer risks for VOCs and PCBs combined were within or below the EPA acceptable cancer risk range of 1.0×10^{-6} to 1.0×10^{-4}.

24. Results indicate that groundwater seepage located in the vicinity of the south freight elevator (indoor air sample location R16) is impacted by releases of chlorinated solvents to groundwater from either historical site use or from the adjacent Department of Energy (DOE) facility.

25. The potential for groundwater impacts from historical site use and the identified chlorinated solvent-impacted groundwater plume located under the adjacent Department of Energy (DOE) facility are likely sources of impact to the GSA BFC sub-slab and indoor air. Chlorinated solvent-related compounds (vinyl chloride, trans-1,2-DCE, cis-1,2-DCE, TCE, and PCE) were detected in multiple sub-slab and indoor air samples at concentrations exceeding their respective screening levels. Each of these chemicals is a chlorinated VOC plausibly associated with a chlorinated solvent groundwater plume. Detection of these chlorinated VOCs suggests a past release of chlorinated solvents into the environment that is likely influencing sub-slab and indoor air conditions within Buildings 1 and 2.

Recommendations

Based on the results of the October 2011 sub-slab, indoor, and ambient air sampling event, the recommendation is to continue air sampling for VOCs on a semi-annual to annual basis.

The calculated cancer risks levels for the identified PCBs are within the range that is considered acceptable (1.0×10^{-6} to 1.0×10^{-4}) by the EPA; therefore, further PCB sampling is not recommended.