



**DEPARTMENT OF THE AIR FORCE  
711TH HUMAN PERFORMANCE WING (AFRL)  
WRIGHT-PATTERSON AFB OHIO**

15 Aug 2023

**MEMORANDUM FOR RECORD**

**FROM:** USAFSAM/CC  
2510 Fifth Street, Bldg 840  
Wright-Patterson AFB OH 45433

**SUBJECT:** Results of PCB environmental air and surface swipe samples, F.E. Warren AFB, July 2023

**EXECUTIVE SUMMARY**

A team of Bioenvironmental experts from the USAF School of Aerospace Medicine (USAFSAM)/Defense Centers for Public Health – Dayton, performed environmental sampling at F.E. Warren AFB from 07-14 July 2023 as part of the continued efforts to investigate cancer concerns in the Missile Community. F.E. Warren was the second of three bases to be sampled as part of this effort. A large range of air, water, soil and surface samples were collected and sent for analysis. This memo summarizes the air and surface swipe sampling results for PCBs only. Additional results for other environmental samples collected will be reported separately, as these are still being analyzed and are not yet available.

A total of two (2) air samples and twenty (20) swipe samples were collected at each Missile Alert Facility (MAF) location. In total, 30 air samples and 300 swipe samples were collected. One 8-hour air sample was collected within each underground Launch Control Center (LCC) and a second 8-hour air sample was collected in the above ground MAF. No PCBs were detected in any of the air samples. PCB swipe samples were predominantly conducted across a range of locations in the underground LCCs, with a few samples taken from the supporting MAF. These locations included common touch areas and areas where known or suspected PCB containing equipment was currently or historically installed. A total of 300 surface swipe samples were collected, with 17 demonstrating detectable levels of PCBs. Of these 17 swipe samples, all were below the 40 Code of Federal Regulation (CFR) 761 acceptable level after cleaning of high-occupancy areas ( $10 \mu\text{g}/100 \text{ cm}^2$ ). Notably, all sample were below  $4 \mu\text{g}/100 \text{ cm}^2$ .

The results are presented in the tables below.

Table 1: PCB Air Sampling Results

<b>MAF</b>	<b>Results</b>
All (15) LCC and (15) MAF locations	No PCBs detected in any of the 30 air samples

Table 2: PCB Swipe Sampling Results

<b>LCC</b>	<b>Results</b>
6 LCCs	No PCBs detected in any of the 20 swipes collected per LCC (120 total).
9 LCCs	<p>PCBs detected in 17/180 total samples collected across the 9 LCCs.</p> <p>All results below the 40 Code of Federal Regulation (CFR) 761.61 and 761.79 acceptable levels after cleanup activities (10 µg/100 cm<sup>2</sup>).</p> <p>(All 17 sample were below 4 µg/100 cm<sup>2</sup>, with only 4/17 samples above 2 µg/100 cm<sup>2</sup>)</p>

The USAF School of Aerospace Medicine continues to provide research, education, and consultation towards the investigation of cancer concerns in the Missile Community. Our team will work with appropriate leadership and experts to determine if any additional clean-up activities are required or recommended based on the above findings. Our continued efforts will assure that a thorough look at all environmental and occupational hazards is conducted to guide a comprehensive and holistic response, including future recommended actions.

TORY W. WOODARD  
 Colonel, USAF, MC  
 Commander