

ASBESTOS AIR SAMPLING

COMPLETED FOR THE  
GENERAL SERVICES ADMINISTRATION

**Survey Location:**

CHET HOLIFIELD FEDERAL BUILDING  
GENERAL SERVICES ADMINISTRATION  
24000 AVILA ROAD  
LAGUNA NIGUEL, CALIFORNIA 92677

**Survey dates:**

MAY 9, 2018 & MAY 10 2018

**Report Date:**

June 1, 2018

Revised: July 18, 2018

**Prepared by:**

UNITED STATES PUBLIC HEALTH SERVICE  
FEDERAL OCCUPATIONAL HEALTH



## A. EXECUTIVE SUMMARY

On May 9, 2018 and May 10, 2018, the Federal Occupational Health (FOH) inspection team conducted asbestos air sampling throughout the Chet Holifield Federal Building. Air sampling was conducted to verify that airborne fiber levels were at appropriate levels. Air samples were collected in common areas, storage rooms, file rooms and in occupied office spaces throughout the building. A total of seventy-two (72) air samples, six lab blanks and six field blanks were collected by Federal Occupational Health and submitted for analysis using Transmission Electron Microscopy (TEM).

There are no current EPA regulations for general area air sampling and no regulatory action levels for direct comparison of airborne asbestos levels; however, the US Environmental Protection Agency (EPA) has regulations for area air sampling within containment after an asbestos abatement has been completed. When performing general area asbestos air sampling, FOH compares results to the EPA regulations.

Laboratory analysis indicated fiber levels for all samples to be less than 15 structures per millimeter squared (15 s/mm<sup>2</sup>). Two of the seventy-two samples collected contained one structure each which equated to 14 s/mm<sup>2</sup>. In structures per cubic centimeter (s/cc) the results ranged from <0.0034 to <0.0047 s/cc of air. The two samples that contained one structure each had results in s/cc of 0.0043 and 0.0045.

For TEM AHERA samples, EPA uses the clearance level of 70 s/mm<sup>2</sup> after an asbestos removal has been completed. This is the level at which EPA considers the space appropriate to return to general occupancy. Analytical results of all air samples indicate that asbestos concentrations were below the EPA clearance level of 70 s/mm<sup>2</sup>. The Memorandum of Agreement (MOA) between the General Services Administration (GSA) and the US Citizenship and Immigration Services (USCIS) dated February 15, 2017 states that results less than 0.005 s/cc are considered acceptable. All results from the air sampling were less than 0.005 s/cc of air.

One sample (2-42) had a flow rate that was miscalculated on the chain of custody when initially submitted to the lab. Upon review, after the samples were submitted, it was realized that the average flow rate was calculated incorrectly. This was changed on the COC which resulted in the total liters of air collected being changed also. This change was transmitted to the lab and the corrections were made on the attached lab results.

## **B. INTRODUCTION**

On May 9, 2018 and May 10 2018, U.S. Public Health Service, Federal Occupational Health, inspection team members, Benjamin Cohn, Michael Pinkerton and Robert Gates conducted asbestos air sampling at the Chet Holifield Federal Building located at 24000 Avila Road, in Laguna Niguel, California, 92677. Air samples were collected in common areas, storage rooms, file rooms and office spaces occupied by government agencies within the above referenced structure (Please refer to the attached Site Map). A total of seventy-two (72) air samples, six lab blanks and six field blanks were collected and analyzed for asbestos fibers using transmission electron microscopy (TEM) by AMA Analytical Laboratory in Lanham, Maryland.

The Chet Holifield Federal Building is a United States Government Building managed by the General Service Administration and is occupied by government agencies. The 7-story pyramidal form building was constructed between 1967 and 1971 and is approximately 1,000,000 square foot in size. It is constructed of angled, painted, pre-cast concrete panels with reticulation, a textured finish that displays curvilinear forms and recessed anodized aluminum windows. The building has a concrete frame and the lateral force-resisting system consists of concrete shear walls and single-level concrete moment frames. This office space has carpeted and tiled floors, painted-sheetrock walls, drop ceilings, and the supply air is ducted while the return air is transported via the plenum area above the ceiling.

Before the survey, an opening conference was held with GSA Senior Property Manager Sherry Hutchinson and Acting Building Manager Jennifer Kim, to discuss the procedures and the locations of the air sampling.

## **C. METHODS**

Air sampling was conducted by drawing a known volume of air through a filter using flow-controlled pumps that were each pre and post calibrated. Calibration was made by using a Bios Defender 520 Primary Flow Calibrator, with a representative sampler in line. The filter media used was 0.45-micron pore-size mixed cellulose ester filter with backup pad. Each sample was collected open-faced in a 25-millimeter non-conducting cassette. Each sample was collected at breathing zone height. The samples were collected for approximately 2 hours and a sufficient volume of air was collected to meet the required limit of quantification for TEM analysis as well as meet the optimum fiber loading on the filter. Air samples were collected from common areas, storage rooms, file rooms and in occupied office spaces. A total of seventy-two (72) air samples, six lab blanks and six field blanks were collected and analyzed for asbestos fiber concentrations using AHERA TEM. All samples were analyzed by AMA Analytical Laboratory in Lanham, MD, an American Industrial Hygiene Association (AIHA) accredited laboratory.

One sample (2-42) had a flow rate that was miscalculated on the chain of custody when initially submitted to the lab. Upon review, after the samples were submitted, it was realized that the average flow rate was calculated incorrectly. This was changed on the COC which resulted in the total liters of air collected being changed also. This change was transmitted to the lab and the corrections were made on the attached lab results.

## **D. RESULTS**

Laboratory analysis indicated fiber levels for all samples to be less than 15 s/mm<sup>2</sup>. Two of the seventy-two samples collected contained one structure each which equated to 14 s/mm<sup>2</sup>. In structures per cubic centimeter (s/cc) the results ranged from <0.0034 to <0.0047 s/cc of air. The two samples that contained one structure each had results in s/cc of 0.0043 and 0.0045. Complete laboratory results and sample location plans can be found in Section F-Supporting Documents of this report.

## **E. DISCUSSION AND RECOMMENDATIONS**

There are currently no regulations for general area air sampling for asbestos and no regulatory action levels by which results may be directly compared. The US Occupational Safety and Health Administration (OSHA) has regulations for worker exposure which entails sample collection by placing the sampling device in the employee's breathing zone. However, this was not the case and therefore FOH will not compare the area sampling results to the OSHA PEL of 0.10 fibers per cubic centimeter. The US EPA has regulations for area air sampling within containment after an asbestos abatement has been completed. When performing general area asbestos air sampling, FOH compares results to the EPA regulations. There are some differences in the method of collection since FOH did not collect the samples in containment but the clearance level is the same.

For TEM samples, EPA uses the clearance level of 70 s/mm<sup>2</sup> after an asbestos removal has been completed. This is the level at which EPA considers the space appropriate to return to general occupancy. All of the samples collected by FOH have levels less than 70 s/mm<sup>2</sup>.

The MOA between GSA and USCIS states that results less than 0.005 s/cc of air are considered acceptable. All sample results from this sampling event were less than 0.005 s/cc of air.

FOH recommends that any work that is done above the ceiling, in the plenum area, is completed after hours while utilizing a negative pressure mini-containment. This will limit the disturbance of the dust on the top of the ceiling tiles.

## **F. SUPPORTING DOCUMENTS**

Supporting documents, including lab reports and chain of custody documents, can be viewed in the GSA Field Office, Suite 4400 or by contacting 949-360-2022.

Laboratory Report/Chain of Custody for initial sampling (18 pages)