



ASBESTOS SURVEY REPORT

139 Piper St
Healdsburg, Ca 95448

Dave Tichava
03/14/2024



Inspector

Steve Ramos

Certified Inspector

707.775.7800

steve@insightebc.com

TABLE OF CONTENTS

1: Executive Summary	4
2: Asbestos Inspection Methods and Procedures	6
3: Asbestos Results and Recommendations	8
4: Asbestos Regulations	10
5: State Certification	12

The summary report is provided as a convenience to you the client. This summary does not represent the entire report. We recommend and encourage you to read the entire report. The summary may not contain important facts that may alter your opinion of the building under evaluation.

1: EXECUTIVE SUMMARY

Information

Cover Letter



Insight Environmental is pleased to submit the enclosed Asbestos Inspection Survey for this which was performed by Steve Ramos a California Certified Asbestos Consultant.

If you are required to submit a form for asbestos demolition/renovation form to the Bay Area Air Quality Management District you will need the following information to complete your form:

- **Name of the company that conducted the survey:** Insight Environmental
- **Address:** 245 Kentucky St., Ste A
- **City/State/Zip:** Petaluma CA 94952
- **Phone:** (707) 775-7800
- **Name of the person who completed the survey:** Steven Ramos CAC/CSST #: 17-6062

If you have questions or comments regarding the information in this report or if we can be of further assistance, please do not hesitate to contact the undersigned at (707) 775-7800.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Ramos", is written over a light blue horizontal line.

Steve Ramos
CAC # 17-6062

Introduction: Introduction

At the request of the client, Insight Environmental performed a survey for asbestos-containing construction materials (ACCM). The work was performed by Steven Ramos, a Certified Asbestos Consultant (#17-6062). The scope of work was conducted in compliance with current state and federal asbestos regulations; a summary of applicable regulations is included in an appendix to this report. Every effort was made to survey all accessible suspect materials.

Introduction: Site Description

The building surveyed is a public library. The building is the subject of a modernization program and building materials will be disturbed, removed, replaced, and repaired. This survey address the areas to be impacted and the suspected asbestos containing materials.

Exterior

The exterior brick wall, brick walkway, and stucco were assessed for asbestos as they may be impacted during the process of the modernization.

Interior

The interior areas to be impacted by the modernization were identified as:

- The Main Lobby
- The Customer Bathrooms
- The Employee Break Room and Bathroom Area
- An individual office
- The childrens book section
- The check out counter area

A prior survey sampled these areas for asbestos. I have included the results of that sampling regimen. The materials and areas previously sampled were not sampled again as the materials were identical to the materials sampled in the first survey.

Summary Results: Bulk Sample Results - Non Detect

The materials that were surveyed for this scope of work for collected and processed in accordance with industry best practices and regulation. The materials were packaged and shipped to an accredited lab for processing and analysis. The laboratory results did not identify any materials in the list submitted as asbestos-containing materials above the 1% threshold.

2: ASBESTOS INSPECTION METHODS AND PROCEDURES

Information

Methodology Introduction: Inspection Procedures

If available and provided prior to the inspection, Insight Environmental reviewed the building's asbestos file for previously identified ACM. The inspection process began with a visual survey of the site for bulk debris or ash debris that may contain asbestos. The suspect materials identified were then described and categorized into homogeneous areas. Homogeneous areas consist of suspect materials that are identical in color, appearance, pattern, texture, and date of installation. Samples were collected in accordance with AHERA requirements detailed at 40CFR Part 763, Subpart E.

Sampling Methods: Sampling Method

All of the suspect materials identified were described and categorized into homogeneous areas (HAs). An HA consists of all identified material found in various locations in a building that are identical in color, appearance, pattern, texture, and date of installation. The HA can be described only within a single building (i.e., red floor tile in different buildings on the same campus, even if installed on the same day, compose different HAs). The asbestos inspection was conducted according to modified Asbestos Hazard Emergency Response Act (AHERA) guidelines using a minimum number of samples collected from each HA, which meets the sampling criteria found in 29 CFR 1926.1101. Samples of suspect miscellaneous materials were collected in a randomly distributed manner sufficient to determine whether the materials were asbestos-containing. No samples were collected from any HA where the inspector determined that the material was non-ACM (such as carpet, carpet pad without mastic, foam, glass, wood, rubber, ceramic tile, etc.). Samples were obtained with tools designed to penetrate a material without creating excessive dust. A utility knife, chisel, and coring sleeve were utilized, rather than scratching a sample from the surface of suspect materials, in an effort to obtain a sample that was representative of all layers of the material. The area was pre-wetted to reduce fiber generation during the sampling process. Insight Environmental sampling procedures incorporate the use of plastic zip-lock bags labeled in a unique numbering sequence to store the bulk samples. Information about bulk samples, including the sample number and material description, were noted on the chain-of-custody sheets as each sample was collected.

Laboratory Procedures and Analysis: PLM Procedures

Bulk samples were submitted to the laboratory under chain of custody and analyzed by PLM using EPA Method 600/R-93/116, July 1993, in accordance with 40 CFR 763, Subpart F, Appendix A (AHERA), and if applicable, the point Count Method 600/R-93/116, July 1993, by EMSL Analytical located in San Leandro CA. Bulk samples of suspected ACM were examined under a stereomicroscope to identify suspect fibers. A polarized light microscope equipped with a dispersion staining objective lens was used to determine which of the suspect fibers are asbestos. The various asbestos minerals were identified on the basis of their unique optical characteristics. Reported asbestos percentages were based on visual volume estimates. Laboratory analysis reports and chain of custody are provided as an attachment to this report.

Asbestos Materials Classification: Material Classes

Surfacing Material

Interior ACBM that has been sprayed on, troweled on, or otherwise applied to surfaces (structural members, walls, ceilings, etc.) for acoustical, decorative, fireproofing, or other purposes. This includes acoustical plaster, hard plasters (wall or ceiling), fireproofing insulation, spray-applied or blown-in thermal material, joint or patching compound (wall or ceiling), and textured paints or plasters.

Thermal Insulation (TSI)

Insulation used to control heat transfer or prevent condensation on pipes and pipe fittings, boilers, breeching, tanks, ducts, and other parts of hot and cold water systems; heating, ventilation, and air conditioning (HVAC) systems; or other mechanical systems. These insulation materials include pipe lagging, pipe wrap, HVAC duct insulation, block insulation, cements and muds, and a variety of other products such as gaskets and ropes.

Miscellaneous Materials

Other, mostly non-friable products and materials found on structural components, structural members or fixtures, such as floor tile, ceiling tile, construction mastic for floor and ceiling materials, sheet flooring, fire doors, asbestos cement pipe and board, wallboard, acoustical wall tile, and vibration damping cloth. "Miscellaneous materials" do not include thermal system insulation or surfacing materials.

3: ASBESTOS RESULTS AND RECOMMENDATIONS

Information

Findings and Results: PLM

Bulk samples of suspect building materials were collected. The sample analysis was conducted by EMSL, a registered and certified asbestos laboratory utilizing Polarized Light Microscopy (PLM) methodology. The laboratory is accredited for PLM analysis by both the American Industrial Hygiene Association (AIHA) and the National Voluntary Laboratory Accreditation Program (NVLAP). PLM analysis requires the microscopist to take a portion of the sample and treat it with an oil of a specific refractive index. The prepared slide is then subjected to a variety of tests while being viewed under varying polarization of light. Each type of asbestos displays unique characteristics when subjected to these tests. Percentages of the identified types of asbestos are determined by visual estimation.

Findings and Results: Definitions and Characterizations

Definition of Asbestos-Containing Materials

The EPA's Asbestos NESHAPs and the Air Quality Management District (AQMD), the local air pollution control district, define an asbestos-containing material as any material that contains a concentration of asbestos of greater than one percent (>1.0%) by area as determined by Polarized Light Microscopy (PLM) [Federal Register, Volume 59, No. 146, August 1, 1994, P. 38970-38971]. NESHAPs and AQMD further segregate asbestos-containing materials into Regulated Asbestos-Containing Materials (RACM), Category I Non-Friable Materials, and Category II Non-Friable Materials, which are defined as follows:

Regulated Asbestos-Containing Materials (RACM)/Asbestos-Containing Materials (ACM): Includes all friable asbestos materials, Category I/Class I Nonfriable ACM that have become friable or will become friable, and Category II/Class II Nonfriable ACM that have a high probability of being crumbled, pulverized, or reduced to powder by the forces expected to act on the materials in the course of renovation or demolition.

- Category I Nonfriable ACM/Class I Nonfriable ACM: Includes asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products that when dry can be crumbled, pulverized, or reduced to powder by hand pressure.
- Category II Nonfriable ACM/Class II Nonfriable ACM: Includes all non-friable materials, excluding Category I/Class I Nonfriable ACM that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Definition of Asbestos-Containing Construction Materials

The California Department of Occupational Safety and Health (Cal/OSHA) further defines an asbestos-containing construction material (ACCM) as a material that contains greater than one-tenth of one percent (>0.1%) asbestos. Prior to demolition of a building, most of the air quality districts in California require abatement of friable ACM as well as non-friable ACM that may become friable during demolition.

Federal Occupational Safety and Health Administration (OSHA) regulations, locally enforced by CAL/OSHA, defines ACM as substances that contain greater than 1% asbestos. CAL/OSHA also mandates special training, medical exams, personal protective equipment, and record-keeping for employees working with ACM. If materials contain less than 1% asbestos but more than 0.1% asbestos, the material may be disposed of as non-ACM, but CAL/OSHA requirements still have to be followed regarding workers' protection and Contractor licensing.

The trace materials are currently regulated in California and require the following:

- Removal using wet methods
- Prohibition of removal using abrasive saw or methods which would aerosolize the materials
- Prompt cleanup of the impacted zone, using HEPA-filtered vacuums, as applicable
- Employer registration by CAL/OSHA for removal quantities exceeding 100 sq. ft. per year
- CAL/OSHA carcinogen Registration by the Demolition or abatement contractor impacting such material.

Findings and Results: Result Non Detect

Asbestos Containing Materials Were Not Present in the Samples Collected. Insight Environmental recommends that any material which cannot be adequately identified as having been previously tested negative, be assumed to be asbestos-containing until such time as testing proves otherwise.

Summary and Recommendations: ACM Not Present

Asbestos Containing Materials Were Not Present in the Samples Collected. Insight Environmental recommends that any material which cannot be adequately identified as having been previously tested negative, be assumed to be asbestos-containing until such time as testing proves otherwise. If the asbestos-containing materials are to be left in place, Insight Environmental recommends that an Asbestos Operations and Maintenance Plan be developed to properly manage the identified and assumed asbestos-containing materials until such time as they are removed. Insight Environmental recommends that one staff member, who will develop and manage the program, be assigned as an Operations and Maintenance (O&M) Program Manager. The person should receive appropriate training and be charged with coordinating periodic O&M inspections. These inspections should include surveying all asbestos-containing building products in the facility. Defects such as signs of increased wear, water damage, vandalism and impact damage should be noted and repaired immediately. Materials with significant damage or that are visibly deteriorating should be removed. All construction or remodeling activities in the buildings should be reviewed by the O&M Program Manager in the planning stage to determine if the planned work will disturb the ACM and if preparatory abatement work will be required.

A complete record should be maintained of all findings (including this report), procedures, and actions regarding ACCM in the building. This record should also contain names of technical advisors, inspectors, consultants, and all staff time, material and costs associated with asbestos management and abatement. In the future, if ACCM management cost recovery is sought from manufacturers, suppliers, or contractors, or in the event of litigation, this information will be required.

4: ASBESTOS REGULATIONS

Information

Confidentiality and Health Affects

Confidentiality & Limitations

This report was prepared for the sole use of the client(s) the only intended beneficiaries of our work. No other party should rely on the information contained herein without the prior written consent of Insight Environmental and the Client(s). Insight Environmental understands that our services to the Client are to be held in strict confidence. Insight Environmental will not discuss or disclose any information about our services to any third party without the Client's consent.

This air quality assessment was planned and implemented on the basis of a mutually agreed scope of work. The survey was conducted in conformance with generally accepted current standards for identifying and evaluating asbestos in construction materials. Insight Environmental uses only qualified professionals to perform building surveys; the reasonable effort was made to survey accessible suspect materials. Although state-of-the-art techniques were implemented during this investigation, the scope of work may extend beyond that which could not be assessed through reasonable visual and analytical means. All findings and recommendations presented within reflect generally accepted industrial practices and the professional opinion of Insight Environmental. The investigation was performed within the limitations prescribed by the client. No warranties, either expressed or implied nor guarantees, are made. The sample results and instrument readings on which this report was developed should be considered a "snapshot" of the conditions at the time of sample collection. Due to the complexity of HVAC systems, Insight Environmental cannot guarantee the completeness of decontamination work conducted on HVAC systems. All medical questions and concerns should be addressed by a qualified medical physician.

Insight Environmental assessment of the risk of exposure to airborne asbestos fibers followed generally accepted protocols and is based on conditions at the time of the survey. Insight Environmental is not responsible for changes in conditions or accepted protocols subsequent to our site visit.

Asbestos Health Effects

Asbestos can cause asbestosis, lung cancer, and mesothelioma. The onset of asbestosis has been linked to the concentration of the asbestos dust, the type of asbestos fiber in the dust, and the length of exposure. It is a progressive disease that may develop fully 20 to 30 years after the first exposure. It is characterized by scarring of the lungs, and will significantly decrease the ability of the lungs to exchange air.

Mesothelioma, or cancer of the lining of the lung or abdominal cavity, may occur without evidence of asbestosis. Mesothelioma may occur after a short, intensive exposure to asbestos fibers. Approximately 85 percent of all mesothelioma cases are attributable to asbestos exposure. According to the Department of Labor, information is insufficient at the present time to set an exposure standard (other than zero) that could assure the prevention of mesothelioma in all workers, since the disease may occur following a very limited exposure 10 to 15 years earlier. People exposed to industrial concentrations of asbestos are at risk five times greater than the general public of developing lung cancer.

Cigarette smoking is strongly implicated as a "co-carcinogen" among asbestos workers. Calculations suggest that cigarette-smoking asbestos workers have approximately 50 to 90 times the risk of developing lung cancer compared with other smokers.

Types Uses and Medical Information

Types of Asbestos

The word asbestos refers to several types of naturally occurring fibrous minerals. Deposits of asbestos are found throughout the world. The primary sites of commercial production are Canada, Russia, South Africa, and the United States. Asbestos gained widespread use in commercial products because it was readily available, inexpensive, and because it is strong, it does not burn, it does not conduct heat or electricity well, and it is impervious to chemical corrosion.

Medical Information

The medical community has identified three primary diseases which can be linked to asbestos exposure; asbestosis, lung cancer, and mesothelioma of the pleura or the peritoneum. These asbestos-related diseases may have a latency period of 20 40 years. The primary route of exposure is the inhalation of fibers. Asbestos is only considered a danger to human health when it is airborne and breathable.

Uses of Asbestos

Asbestos is comprised of a group of natural minerals. Unlike other minerals, however, the crystals of asbestos form long, thin fibers. Asbestos deposits are found throughout the world, but the primary sites of commercial asbestos production are Canada, Russia, and South Africa. Commercial mining of asbestos in the United States was halted in the 1980s. Once extracted from the earth, asbestos-containing rock is crushed, milled (or ground), and graded. This produces long, thread-like fibers of the material. What appears to the naked eye as a single fiber is actually a bundle of hundreds or thousands of fibers, each of which can be divided even further into tiny fibers (fibrils), invisible without the aid of a microscope. Asbestos materials are divided into two groups -- serpentine and amphibole. All asbestos in the serpentine group is called Chrysotile. This is the most common type of asbestos found in buildings in the United States, accounting for approximately 95 percent of the asbestos found in the nation's buildings. It is commonly known as "white asbestos" because of its natural color. The amphibole group contains five types of asbestos. Amosite, the second most common type of asbestos found in buildings in the United States, is often referred to as "brown asbestos" for the color of the natural mineral. Crocidolite, or "blue asbestos" has been used in high-temperature insulation products and on chemical-resistant surfaces, such as laboratory tables for chemistry and biology classes (upon occasion, the custodial staff will drill holes in tabletops for new fixtures without realizing that the material may contain crocidolite. The remaining three types of asbestos in the amphibole group -- Anthophyllite, Tremolite, and Actinolite -- are rare and have little commercial value. They are occasionally found as contaminants or minor constituents in asbestos-containing materials.

5: STATE CERTIFICATION

Information

State Certification



Asbestos
CAC
Certification