

Survey/Notification  
Section

## **Abatement Inspections, Inc.**

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# **ASBESTOS INSPECTION REPORT**

**Failing Roof at Greyhound, San Jose**

**70 Almaden Ave., San Jose**

**Abatement Inspections Job # 8898**

Client:

Greyhound Lines, Inc. c/o John Hamilton

P.O. Box 660362

Dallas, TX

75266-0362

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## QUALIFICATIONS & CERTIFICATIONS

A partial list of asbestos qualifications and certifications maintained by Allen Wicks, President of Abatement Inspections, Inc., includes:

- California State Certified Asbestos Consultant
- AHERA "Asbestos Abatement Project Designer" certification, EPA/U.C. Berkeley
- AHERA "Buildings Inspector" (asbestos) certification, EPA/U.C. Berkeley
- AHERA "Asbestos Abatement Contractor/Supervisor" certification
- AHERA "Management Planner" (asbestos) certification, EPA/U.C. Berkeley
- "Asbestos Sampling" certification, NIOSH/U.C. Berkeley
- Master's Degree, U.C. Berkeley
- "Air Sampling and Analysis" certification (NIOSH 582/Georgia Tech)
- California State Contractor's License, inactive
- California State Contractor's License Asbestos Certification

### Publications:

"Asbestos Issues In Energy Retrofit", ACEEE, U.C. Santa Cruz, 1986

### Member:

- National Asbestos Council
- American Society of Heating, Refrigeration, and Air Conditioning Engineers
- Construction Specifications Institute

### Acronyms:

"NIOSH":	National Institute of Occupational Safety and Health
"AHERA":	Asbestos Hazards Emergency Response Act
"EPA":	United States Environmental Protection Agency
"Cal-OSHA":	California State Department of Industrial Safety Agency
"OSHA":	U.S. Occupational Safety and Health Administration

Wicks has had on-site full-control experience with hundreds of asbestos surveys and abatement projects. He has been professionally involved in building inspection and evaluation since 1973, and founded a fully certified, Cal-OSHA registered asbestos abatement firm in which he is no longer active. Prior to 1973, he spent college vacations as a pipefitter's helper working with asbestos-containing materials.

## **SCOPE OF THIS INSPECTION AND REPORT**

The scope of this report and inspection includes only the identification of significant quantities of readily accessible, friable materials containing in excess of 1% asbestiform minerals on the (failing) Greyhound building roof, 70 Almaden Avenue, San Jose, and subject to the limitations of the number of bulk material samples taken. All other materials are specifically excluded from the scope of this report. Additional limitations are listed within the body of this report. Use of this report in any way constitutes full acceptance of all qualifying statements included either in this report or in appendices. This inspection and report apply only to the specific roof identified to us at the 70 Almaden Avenue facility.

Readers may use the information in this report to assist in building maintenance and renovation decisions, and in determining the nature of additional inspecting and sampling. It is important to recognize the limitations of this report.

## **ASBESTOS AND HEALTH**

Asbestos is a term referring to a number of different naturally occurring mineral fibers that are found in numerous building materials, auto brake shoes, clutch pads; etc. This report is produced by individuals qualified to identify and evaluate the condition of asbestos-containing materials in buildings. We are not physicians or other health professionals. No part of this report, or comments by our inspectors, should be construed as health advice.

Readers are referred to the U.S. Environmental Protection Agency (EPA) or to their own physicians for advice regarding the health effects of asbestos. At the time this report was prepared the author was not aware of the existence of a U.S. standard for exposure to airborne asbestos fibers in residential or public areas [California's "Prop 65" does require notification of possible asbestos hazard to the public under certain circumstances, and OSHA does promulgate workplace standards].

The EPA states that "Airborne asbestos contamination in buildings is a significant environmental problem. ...The presence of asbestos in a building does not mean that the health of building occupants is necessarily endangered." Most buildings constructed before 1974, and many built since then, do contain asbestos. Generally, potential health hazards are related to the likelihood of breathing airborne asbestos fibers. This report addresses the issues that relate to the probability of asbestos fibers becoming airborne: content, friability, condition, accessibility and location.

## **JARGON**

Technical jargon abounds in the asbestos abatement field. We have endeavored to minimize the use of technical terms as much as possible in this report, but such terms are often most descriptive. Important terms are "friable," which describes a material as being easily crumbled to make dust using hand pressure, and "acm," which is simply an acronym for "asbestos-containing material." This report uses the U.S.E.P.A. definition of "in excess of 1% asbestos fibers" to be asbestos-containing. "Abatement" refers to the reduction of airborne asbestos fiber hazard.

**NO ASBESTOS DETECTED IN ROOF FIELD; ROOF CEMENT MATERIALS ARE ASSUMED TO CONTAIN ASBESTOS**

No asbestos was detected in five core samples taken from the roof field in question (see attached "Laboratory Results" report). However, incidental roof cement on site is assumed to contain asbestos. Roofing material is nonfriable and outside the building envelope; contamination of interior spaces is very unlikely.

**RECOMMENDED:** Multiple cross-sectional samples of field built-up roofing material did not identify asbestos. Incidental roofing cement is assumed to be asbestos containing. Maintenance personnel should ensure that no asbestos-containing roof cement is currently being used in-house or by contractors for roof repairs. Asbestos-containing roof cement should be removed by a contractor asbestos-certified by the California State Contractor's License Board prior to major roofing demolition.

**AGE OF MATERIALS**

Contrary to information promulgated by various individuals and agencies, asbestos content can not be determined solely by the supposed installation date of a building material. Asbestos-containing materials were occasionally installed into the 1980's.

**GUARANTEE/LIMITED WARRANTY**

All inspections and reports from Abatement Inspections are guaranteed. If errors or omissions are found to exist, Abatement Inspections will either provide a revised report at no additional charge or will refund the full cost of our services, at our discretion. Under no circumstances shall Abatement Inspections be held liable for consequential damages, or for any other cost other than the direct cost of our services.

**EPA vs. OSHA DEFINITION OF "ASBESTOS-CONTAINING MATERIAL"**

Discrepancies exist among government agencies as to the definition of what constitutes an "asbestos-containing material." Some agencies and some legislation refer to "in excess of 0.1%" asbestos content, while other agencies and legislation refer to "in excess of 1.0%" asbestos content. The quantification validity of the specified PLM laboratory analytical methodology in the range below 1% is questioned by many laboratory professionals.

Consideration of asbestos contents less than 1% are beyond the scope of our typical evaluation, except that lab-analyzed samples with detected asbestiform fibers less than 1% are reported as "Trace." Additional sampling and special consideration by the client is recommended for samples reported as "Trace." Questions regarding the definition of asbestos-containing materials, or the effect of varying definitions, should be referred to the agencies involved.

**RECOMMENDED:** Additional sampling and/or additional lab analysis is strongly recommended for materials identified as containing "Trace" asbestos. Abatement Inspections, Inc., recommends that suspect materials or materials reported as containing "Trace" asbestos be considered to be

asbestos-containing materials unless additional sampling and/or additional lab analysis supports a less than 0.1% description.

### **IMPORTANT: LIMITATIONS OF INSPECTION METHODOLOGY**

No building material may be positively identified as being asbestos-containing without laboratory analysis; however, many materials in certain applications and of particular appearance that do not typically have non asbestos-containing substitutes of similar appearance have been found to invariably contain asbestos. Gray fibrous roof cement is an example of such a material.

Materials identified as asbestos-containing in the body of this report that are not identified as "laboratory analyzed" have been identified solely based on the opinion of our inspector, without scientific analysis. In our opinion it is unlikely that a material identified as asbestos-containing in this fashion does not contain asbestos; however, users of this report should be aware that only those materials identified in an appendix "Laboratory Results of Testing for Asbestos" have been scientifically evaluated. Laboratory analysis of any material is available at added cost.

Similarly, many materials are identified as non asbestos-containing either by reference or by omission, based on the inspector's experience and without scientific analysis. Fiberglass-type insulation is an example of such a material. Again, the only absolute method to ensure that any material is not asbestos-contaminated is by microscopic laboratory analysis, and users of this report should be aware that only those materials identified in an appended "Laboratory Results of Testing for Asbestos" report have been scientifically evaluated.

Unfortunately, lab analysis is not inexpensive; consequently, we report our inspectors' opinions for use by readers of this report. As noted above, we suggest that individuals desiring scientific information on a material request lab analysis at added cost. Due to statistical variation, lab analysis of a minimum of three to five samples is needed to scientifically verify that a moderate area of surfacing material does not contain asbestos. Single-sample results should not be considered necessarily representative. One sample analyzed as positive is normally considered sufficient to verify that a given material does contain asbestos.

### **ABATEMENT CONTRACTING**

Well-meaning but not necessarily competent advice can be obtained from numerous sources, including some uncertified contractors and some public agency employees. Owners are advised to verify asbestos certification AND field experience.

Asbestos-containing materials should generally only be handled by a licensed, certified, Cal-OSHA registered contractor, and pursuant to a specification prepared by a certified asbestos consultant (asbestos consultants are required to be state-certified in Section 1529 of Title 8, CCR). A building owner may face personal criminal as well as civil liability for employing an uncertified contractor (AB2040 law).

Clients desiring to remove or otherwise abate asbestos-containing materials may contact Abatement Inspections, Inc. at 510-482-0500 to arrange the preparation of an asbestos abatement specification.

#### **PRE & POST-ABATEMENT PLANNING**

Proper pre-abatement planning is important for asbestos abatement jobs. It is important that such pre-abatement planning be performed by a certified individual employed directly by the owner. Such work should not be performed by the abatement contractor due to implicit conflict of interest. Please contact Abatement Inspections, Inc. at 510-482-0500 to arrange pre-abatement planning if suspected asbestos-containing materials are to be renovated or demolished.

#### **ABATEMENT CONTRACT ADMINISTRATION**

Abatement Inspections will provide contract administration services to those owners who contract for asbestos abatement work. Upon request we will act as your agent throughout the abatement contract process, from task definition through post-abatement air monitoring. [Note: Abatement Inspections does not provide or arrange abatement contracting services. The abatement contractor is an unaffiliated firm selected by the building owner.]

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### LABORATORY RESULTS

Abatement Inspections Job # 8898, Sample # 250580 70 Almaden Ave., San Jose

Sample Information: Core cross-section of roof surfacing material to wood substrate, location A.  
Photo #

Lab Analysis Results: **No asbestos detected.**  
Sampled: 11/9/93

Abatement Inspections Job # 8898, Sample # 250815 70 Almaden Ave., San Jose

Sample Information: Core cross-section of roof surfacing material to wood substrate, location B.  
Photo #

Lab Analysis Results: **No asbestos detected.**  
Sampled: 11/9/93

Abatement Inspections Job # 8898, Sample # 250739 70 Almaden Ave., San Jose

Sample Information: Core cross-section of roof surfacing material to wood substrate, location C.  
Photo #

Lab Analysis Results: **No asbestos detected.**  
Sampled: 11/9/93

Abatement Inspections Job # 8898, Sample # 250389 70 Almaden Ave., San Jose

Sample Information: Core cross-section of roof surfacing material to wood substrate, location D.  
Photo #

Lab Analysis Results: **No asbestos detected.**  
Sampled: 11/9/93

Abatement Inspections Job # 8898, Sample # 250411 70 Almaden Ave., San Jose

Sample Information: Core cross-section of roof surfacing material to wood substrate, location E.  
Photo #

Lab Analysis Results: **No asbestos detected.**  
Sampled: 11/9/93

NOTE: Bulk analysis employs Polarized Light Microscopy (PLM) with Dispersion Staining. Samples with no observable asbestiform minerals are designated as "no asbestos detected." Samples in which asbestiform minerals were observed in concentrations of less than one percent (<1%) are designated as present in "trace" amounts. Individual results are specific for the individual sample only, and may or may not be representative of material of similar appearance from nearby locations. Multiple samples are recommended if improved representation is desired. Air Samples are per the NIOSH 7400 optical method (PCM) unless noted otherwise. PLM or PCM may not detect low levels of asbestos in some samples. Additional air or bulk samples, and/or analysis by electron microscopy (TEM), are available at additional cost and are recommended for more precise air or bulk sample evaluation. Lead analyses by NIOSH 7802. Samples page 1