

INFORMATION HANDOUT

MATERIALS INFORMATION

ASBESTOS AND DETERIORATED LEAD-CONTAINING PAINT SURVEY REPORT

ROUTE: 5-Ker-PM 0.8

Project No. S9200-06-60
January 20, 2009

Ms. Susan Greenwood, Task Order Manager
Caltrans District 6
2015 E. Shields Avenue, Suite 100
Fresno, California 93726

Subject: TEJON PASS SAFETY ROADSIDE REST AREA
INTERSTATE 5, TEJON PASS, KERN COUNTY, CALIFORNIA
CONTRACT NO. 06A1141
TASK ORDER NO. 60, EA NO. 06-0A9901
ASBESTOS AND DETERIORATED LEAD-CONTAINING PAINT
SURVEY REPORT

Dear Ms. Greenwood:

In accordance with California Department of Transportation Contract No. 06A1141 and Authorization No. 06-0A9901, we have performed an asbestos and deteriorated lead-containing paint survey of the subject property in Kern County, California. The scope of services included surveying the safety roadside rest area buildings and structures at the subject property for suspect asbestos-containing materials and deteriorated (peeling/flaking) lead-containing paint, collecting bulk samples, and submitting the samples to laboratories for analyses.

The accompanying report summarizes the services performed and laboratory analysis.

The contents of this report reflect the views of Geocon Consultants, Inc., who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

Please contact us if you have questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.

Chris Giuntoli, CAC
Senior Project Scientist

John E. Juhrend, PE, CEG
Project Manager

CGG:JEJ:jaj

(5 + 2 CD) Addressee

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ASBESTOS AND DETERIORATED LEAD-CONTAINING PAINT SURVEY REPORT

1.0 INTRODUCTION

This asbestos and deteriorated lead-containing paint (LCP) survey report was prepared by Geocon Consultants, Inc. under Caltrans Contract No. 06A1141 and Authorization No. 06-0A9901.

1.1 Project Description

We performed an asbestos and deteriorated LCP survey at the project location consisting of safety roadside rest area (SRRA) buildings, vending kiosks, and picnic canopies adjacent to northbound and southbound Interstate 5 at Post Mile (PM) 0.25, in Kern County, California. Each SRRA contains two approximate 1,200-square-foot, single-story restroom structures with concrete foundations, stucco, cinderblock and wood exterior walls, and wood shingle roofing. Interior restroom facilities and a custodial/storage room are located within each restroom building. Additionally, an approximate 400-square-foot vending kiosk of similar construction to the restroom buildings is located at each SRRA. The interior of the vending kiosk No. 2 located at the Interstate 5 northbound SRRA was not accessible and, consequently, was not included in the asbestos and deteriorated LCP survey. The project location is depicted on the Vicinity Map, Figure 1, and Site Plan, Figure 2.

1.2 General Objectives

The purpose of our scope of services was to determine the presence and quantity of asbestos and deteriorated LCP at the project location prior to renovation activities. Caltrans will use the information obtained from this investigation for waste profiling, determining California Occupational Safety and Health Administration (Cal/OSHA) applicability, and coordinating asbestos and LCP disturbance activities.

It was not Geocon's intent during this inspection to conduct an evaluation of lead-based paint hazards in accordance with U.S. Department of Housing and Urban Development (HUD) guidelines. HUD protocol generally requires a very extensive sampling strategy that includes sampling of paint on each surface type (e.g., wall, ceiling, window sill, window frame, door frame, molding, etc.) in each room.

2.0 BACKGROUND

2.1 Asbestos

The *Code of Federal Regulations (CFR)*, 40 CFR 61, Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Federal Occupational Safety and Health Administration (FED OSHA) classify asbestos-containing material (ACM) as any material or product that contains

greater than 1% asbestos. Nonfriable ACM is classified by NESHAP as either Category I or Category II material defined as follows:

- **Category I** – asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- **Category II** – all remaining types of nonfriable asbestos-containing material not included in Category I that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Regulated asbestos-containing material (RACM), a hazardous waste when friable, is classified as any manufactured material that contains *greater than 1%* asbestos by dry weight *and* is:

- Friable (can be crumbled, pulverized, or reduced to powder by hand pressure); or
- Category I material that has become friable; or
- Category I material that has been subjected to sanding grinding, cutting or abrading; or
- Category II nonfriable material that has a high probability of becoming crumbled, pulverized, or reduced to a powder during demolition or renovation activities.

Activities that disturb materials containing *any* amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8, CCR Section 1529. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

Materials containing more than 1% asbestos are also subject to NESHAP regulations (40 CFR Part 61, Subpart M). RACM (friable ACM and nonfriable ACM that will become friable during demolition operations) must be removed from structures prior to demolition. Certain nonfriable ACM and materials containing 1% or less asbestos may remain in structures during demolition; however, there are waste handling/disposal issues and Cal/OSHA work requirements that must be followed. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

With respect to potential worker exposure, notification, and registration requirements, Cal/OSHA defines asbestos-containing construction material (ACCM) as construction material that contains more than 0.1% asbestos (Title 8, CCR 341.6).

2.2 Lead Paint

Construction activities (including renovation and demolition) that disturb materials or paints containing *any* amount of lead are subject to certain requirements of the Cal/OSHA lead standard

contained in Title 8, CCR, Section 1532.1. Deteriorated paint is defined by Title 17, CCR, Division 1, Chapter 8, .35022 as a surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separating from a component. Renovation or demolition of a deteriorated LCP component would require waste characterization and appropriate disposal. Intact LCP on a component is currently accepted by most landfill facilities; however, contractors are responsible for segregating and characterizing waste streams prior to disposal.

For a solid waste containing lead, the waste is classified as California hazardous when: 1) the total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg); or 2) the soluble lead content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) of 5 milligrams per liter (mg/l) based on the standard Waste Extraction Test (WET). A waste has the potential for exceeding the lead STLC when the waste's total lead content is greater than or equal to ten times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when total lead is detected at a concentration greater than or equal to 50 mg/kg, and assuming that 100 percent of the total lead is soluble, soluble lead analysis is required. Lead-containing waste is classified as "Resource, Conservation, and Recovery Act" (RCRA) hazardous, or Federal hazardous, when the soluble lead content equals or exceeds the Federal regulatory level of 5 mg/l based on the Toxicity Characteristic Leaching Procedure (TCLP).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability; however, for the purposes of this investigation, toxicity (i.e., lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or other criteria. Waste that is classified as either California hazardous or RCRA hazardous requires management as a hazardous waste.

Potential hazards exist to workers who remove or cut through LCP coatings during demolition. Dust containing hazardous concentrations of lead may be generated during scraping or cutting materials coated with LCP. Torching of these materials may produce lead oxide fumes. Therefore, air monitoring and/or respiratory protection may be required during the demolition of materials coated with LCP. Guidelines regarding regulatory provisions for construction work where workers may be exposed to lead are presented in the Title 8, CCR, Section 1532.1.

2.3 Architectural Drawings and Previous Survey Activities

Caltrans provided as-built plans, dated March 31, 1980, for building construction at the Tejon Pass SRRA for our review. We observed no evidence of asbestos-containing products or lead-containing paints on the as-built drawings we reviewed. Previous survey reports for the project were not available for our review.

3.0 SCOPE OF SERVICES

Mr. Chris Giuntoli, a California-Certified Asbestos Consultant (CAC), certification No. 02-3163 (expiration June 18, 2009), and Certified Lead Paint Inspector/Assessor with the California Department of Public Health (DPH), certification number I-5502 (expiration June 14, 2009), performed the asbestos and LCP survey at the project location on December 22, 2008.

3.1 Asbestos

Suspect ACM were grouped into homogeneous areas with representative samples randomly collected from each. In addition, each potential ACM was evaluated for condition (evidence of deterioration, physical damage, and water damage) and friability. A total of 64 bulk asbestos samples representing 46 suspect building materials were collected.

Our procedures for inspection and sampling are discussed below:

- Collected bulk asbestos samples after first wetting friable material with a light mist of water. The bulk samples were then cut from the substrate and transferred to a labeled container. Note that when multiple samples were collected, the sampling locations were distributed throughout the homogeneous area (spaces where the material was observed).
- Relinquished bulk asbestos samples to EMSL Analytical, Inc., a California-licensed and Caltrans-approved subcontractor, for asbestos analysis in accordance with United States Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM) under chain-of-custody protocol. EMSL Analytical, Inc. is a laboratory accredited by the National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NIST-NVLAP) for bulk asbestos fiber analysis. The laboratory analyses were requested on a 24-hour turn-around-time.

Sample group identification numbers, material descriptions, locations, approximate quantities, friability assessments, and photo references are summarized in Table 1. Approximate sample locations are presented on Figure 2. Materials represented by the samples collected are shown in the attached photographs.

3.2 Lead Paint

Three bulk samples of deteriorated paint were collected from the SRRA buildings. Geocon's paint sampling procedures are discussed below:

- Collected representative bulk samples of suspect LCP using techniques presented in HUD guidelines. In addition, the painted area was evaluated for evidence of deterioration such as flaking or cracking.
- Relinquished LCP samples to Advanced Technology Laboratories (ATL), a California-licensed laboratory, for total and wet soluble lead analyses in accordance with EPA Test Method 6010B under standard chain-of-custody procedures. ATL is accredited by the

California DPH for lead analysis. The laboratory analyses were requested on a 24-hour turn-around-time.

Approximate sample locations are presented on Figure 2. Geocon paint sample identification numbers, paint descriptions, locations, approximate peeling/flaking quantities, and photo references are summarized in Table 2. Photographs of the deteriorated paints sampled by Geocon are attached.

4.0 INVESTIGATIVE RESULTS

Sample results for asbestos bulk and paint samples are summarized in Tables 1 and 2, respectively. Summaries of the analytical results are presented hereinafter.

4.1 Asbestos

Chrysotile asbestos at a concentration of 10% was detected in samples representing approximately 50 square feet of nonfriable roofing mastic used on the southbound Interstate 5 Tejon Pass SRRA buildings.

Thermal system insulation (TSI) present on pipes in the restroom and vending kiosk service areas consisted of yellow fiberglass insulation. No asbestos fibers were observed by EMSL in samples of the remaining suspect materials collected during our survey.

4.2 Lead Paint

Paint samples collected from approximately 150 square feet of peeling and flaking brown paint observed on the exterior surfaces of the southbound Interstate 5 Tejon Pass SRRA building and picnic canopies exhibited total lead concentrations of 31 mg/kg and 60 mg/kg. Soluble (WET) lead was not detected above the laboratory method detection limit of 0.042 mg/l.

A paint sample collected from approximately 100 square feet of peeling and flaking brown paint observed on the exterior trim of the northbound Interstate 5 Tejon Pass SRRA buildings exhibited a total lead concentration of 18 mg/kg.

5.0 REPORT LIMITATIONS

This asbestos and deteriorated LCP survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos and LCP in structures. The survey addressed only the structures identified in Section 1.1. Due to the nature of structure surveys, asbestos and LCP use, and laboratory analytical limitations, some ACM or deteriorated LCP at the project location may not have been identified. Spaces such as cavities, voids, crawlspaces, and pipe chases, may have been concealed to Geocon's investigator. Previous renovation work may have concealed or covered spaces or materials, or may have partially demolished materials and left debris in inaccessible areas. Additionally, renovation activities may have partially replaced ACM with indistinguishable non-ACM. Asbestos and/or LCP may exist in areas of the structures that were not accessible or sampled in conjunction with this TO.

During renovation or demolition operations, suspect materials may be uncovered which are different from those accessible for sampling during this assessment. Personnel in charge of renovation/demolition should be alerted to note materials uncovered during such activities that differ substantially from those included in this or previous assessment reports. If suspect ACM and/or deteriorated LCP are found, additional sampling and analysis should be performed to determine if the materials contain asbestos or lead.

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report, and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.