

HAZ MAT Desktop SOP ACM and LBP Assessments

2021

Purpose:

The purpose of a site assessment is to identify Asbestos Containing Material (ACM) and/or Lead Based Paint (LBP) at a construction or maintenance project. The identifying of the presence of ACM or LBP at a project site will allow the implementation of activities to increase worker safety and protect the environment.

References:

- a) 40 CFR 61, subpart M "The Asbestos NESHAP"
- b) 40 CFR Part 745.226.
- c) 40 CFR Part 763, Sub Part E Asbestos Hazard Emergency Response Act (AHERA)
- d) OSHA 29 CFR 1910.1025
- e) OSHA 29 CFR 1926.62
- f) OSHA 29 CFR 1926.1101
- g) Toxic Substance Control Act (TSCA) Section 402

Inspector Qualifications

Only trained and certified personnel are qualified to collect samples and report on ACM and LBP results found during the site assessment.

- a) ACM
 - a. An AHERA qualified inspector is a person who has attended initial and subsequent annual training as set forth in AHERA 40 CFR Part 763, Sub Part E.
 - b. Role: The role of an AHERA qualified inspector is to prove legally and by the best means possible that a suspect ACM is not ACM. Refer to §763.88.
- b) LBP
 - a. A Lead Based Paint Inspector is an individual who has fulfilled the requirements of the Toxic Substance Control Act (TSCA) Section 402 and received the certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226.
 - b. Role: The role of a LBP inspector is to conduct a surface by surface investigation to determine the presence of lead based paint and providing a written report explaining the results of the investigation.

Inspection Preparation

- a) Review scope of the project.
 - a. Determine what structures / roadway features will be affected by referring to scope of work
 - b. Review plans (if available)
 - c. Conduct desk top site assessment
 - i. Google Earth
 - ii. Photo log
 - iii. Available Photographs
 - d. Prepare a list of what field samples will likely need to be taken
 - i. Likely samples / suspect materials include
 1. ACM – non inclusive listing
 - a. Concrete (ACM) if NESHAP notification will be required
 - b. Bridge hand rail stantion gaskets
 - c. Bridge bearing gaskets
 - d. Black sealant
 - e. Fibrous expansion joints
 - f. Roofing material
 - g. Floor tile and mastic
 - h. Fiber mat below gunite on slopes
 - i. Wiring insulation
 2. LPB – non inclusive listing
 - a. Paint and primer on bridges
 - b. Bridge expansion joints
 - c. Cattle guards
 - d. Fence posts
 - e. Floor paint
 - f. Roadway striping
 - g. Painted light poles
 - h. Soil containing paint chips
 - ii. Roadway striping must be analyzed for LBP and ACM (if obliterated)
 - iii. Ascertain if samples can be safely collected while working near traffic. Employ (safety) engineering controls to maximize personal safety during sampling. These include but not limited to:
 1. Traffic control – coordinate with local maintenance unit
 2. Ladder

3. Fall protection
 4. Collect samples during time of lower traffic volume
- e. Prepare a map(s) of the project area for the purpose of orientation and for recording sampling sites

Site Visit

- a) Conduct walk / drive through of each structure / roadway feature
 - a. Photograph overall area
 - b. Determine if additional structures / roadway features will be affected that were not identified during the desk top site assessments
 - i. Items often not identified in the desk top site assessment include:
 1. Stormwater features
 2. Vaults
 3. Bridge substructure
 4. Utilities
 - c. Identify sample site(s)
 - d. Collect sample

Wear appropriate PPE to include nitrile gloves and eye protection. High visible clothing, hard hat and steel toed boots are required for working within the right of way.

i. ACM

“Each sample was collected by spraying the surface to be sampled with an amended water solution, removing a small piece of the material and placing the sample into a plastic sample bag. The sample bag was labeled with a unique sample identification number and logged on an EP Haz Mat sampling form”

ii. LBP

“The samples were taken by scraping an approximate 2” x 2” square, or an equivalent area, of the painted surface down to but not including, the substrate. Each sample bag was labeled with a unique sample identification number and logged on an EP Haz Mat sampling form”

- e. Record actual location in Latitude and Longitude
 - f. Photograph the sample and sample site
 - g. Record location on site sampling map
- b) Prior to departing the site, inventory all samples and match to Field Sampling Log

- c) Decontaminate tools with soap and water between samples
- d) Dispose of nitrile glove and wash hands after sampling

Submittal of samples for analysis

- a) Prepare a purchase order request for the an analysis of the samples
- b) Complete a analysis request / chain of custody report
 - ACM to be tested for:
 - i. PLM
 - ii. Improved method
 - iii. All layers
 - LBP to be tested for:
 - i. FLAA
 - ii. Pb (lead)
 - iii. Paint
 - iv. PPM
 - Results to be emailed to inspector for inclusion in assessment report.

Assessment Report Content:

- a) Introduction:
 - Type of assessment i.e. ACM, LBP or both
 - Brief discussion of the project scope
 - Location – route and mile post
 - Reference any previous reports for this same project
- b) Attachments (as applicable for type of assessment)

Attachment 1	State Location Map
Attachment 2	Project Vicinity Map
Attachment 3a	Asbestos Inspector Certificates
Attachment 3b	Lead Based Paint Inspector Certificates
Attachment 4	Site Assessment Photographs
Attachment 5a	Suspect Asbestos Containing Material Sampling Log
Attachment 5b	Suspect Asbestos Containing Material Laboratory Report
Attachment 6a	Lead Based Paint Sampling Log
Attachment 5b	Lead Based Paint Laboratory Report
Attachment 6	Field Sampling Map

- c) Methodology

- Date of site assessment
- Statement of inspector qualifications
- Number of samples taken by type and general description of collection site
- Statement of how samples were preserved
- Statement of where the samples were delivered for analysis
- Listing of suspect material which was not sampled and reason not sampled.

d) Analytic Results

- Asbestos
 - i. State applicable statutes

“Under 40 CFR 61, Subpart M and 40 CFR 763, Subpart E, any material or product which contains greater than one percent (1%) asbestos is considered ACM. Asbestos at a level greater one percent (1%) **was/ was not detected** in any of the bulk ACM samples collected during this survey. “

- ii. Description and location of all ACM. Include the percentage of asbestos and type for each type of ACM located.

- Lead
 - i. State applicable statutes

“Under Section 302(c) of the Lead-Poisoning Prevention Act, 42 U.S.C. 4822(c), and Section 401(9) of the Toxic Substances Control Act, 15 U.S.C. 2681(9), LBP is defined as paint with lead levels equal to or greater than 1.0 milligrams per square centimeter (mg/cm²) or 0.5% by weight. The definition has been expanded to include varnish, shellac, and other coatings. Lead at a level greater than 0.5 % by weight **was / was not detected**

- ii. Description and location of all LBP. Include the parts per million concentration of lead in the paint.
 - iii. For paint that has lead above detection level, by laboratory analysis, is considered Lead Containing Paint (LCP) but is not considered to be LBP include:

The Occupational Safety and Health Administration (OSHA) construction lead standard at 29 Code of Federal Regulations 1926.62 governs construction work where an employee may be occupationally exposed to lead. ADOT considers working with lead above the analytical detection level as a potential exposure to lead during construction work.

- iv. Description and location of all lead containing paint above 10 mg/kg. Include the lead concentration of lead in the paint.

e) Limitations

- Statement that the report was completed in the most thorough method possible

- Existence of other ACM or LBP is possible
 - If other materials are located they must be tested to determine if they be evaluated appropriately.
- f) Filing of the report.
- The report is be to reviewed and approved by a supervisor trained and experienced in ACM and LBP operations.
 - Filed in the following locations
 - i. ADOT Data Warehouse – electronical copy under Environmental Documents/ Haz Mat/ Reports for the specific project
 - ii. Environmental Planning shared drive – electronic copy under the appropriate route/ project number / haz mat
 - iii. Haz Mat Project shared drive folder
 - 1. Stored by Project #
 - 2. Includes original photos, correspondence
 - 3. Electronic copy of signed final report
 - Inspector maintains a hard copy of the signed report
 - i. Includes field notes, additional photos
- g) Actions and findings are recorded in ADOT EPG Project Tracking System