



# Asbestos Survey Guidance

## For AHERA Building Inspectors in Spokane County

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### Introduction

This document was developed to provide guidance on scope, structure, and content of an “Asbestos Survey”. It is intended for use by local area providers of asbestos surveys, abatement contractors, other regulatory agencies, and building owners. This document is not intended to be a substitute for applicable regulations. Refer to Spokane Clean Air Regulation I, Section 9.03.

### Guidelines

#### When an AHERA Building Inspector is Required

1. Asbestos Surveys for renovations and demolitions must be performed by an AHERA Building Inspector as defined in Spokane Clean Air Regulation I, Section 9.02.G.
2. One exception exists for asbestos surveys associated with the renovation of an owner-occupied, single-family residence by the owner-occupant. In such cases, the asbestos survey need not be an asbestos survey as defined in Section 9.02.G. An owner-occupant’s assessment for the presence of asbestos prior to renovation of an owner-occupied, single-family residence will suffice. A written asbestos survey is not required.

#### Purpose of an Asbestos Survey

Asbestos surveys are very much project specific. It is important that an asbestos survey be used only for its intended purpose. For example, a limited survey conducted as part of a pre-purchase inspection is not likely to meet the requirements of an Asbestos Survey and thus would not suffice as an asbestos inspection for renovation or demolition. In addition, prior to moving a structure, the scope of the project should be discussed in detail with an AHERA Building Inspector so that he/she can ascertain what areas of the structure need to be surveyed. *The purpose and limitations of any asbestos survey should be clearly identified.* Confirm with the Owner or Owner’s Representative the exact area under investigation, exact nature of renovation and demolition, and identify all materials that may be disturbed and those that will be disturbed.

#### Field Procedures

1. Determine what materials were required for use under the Uniform Building Code in effect at the time of construction and past renovations of the structure, if available.
2. Review any existing information about the structure, including design drawings, as-built drawings, project specifications, and any existing survey and/or laboratory information.
3. Use equipment that will allow visual examination of all accessible spaces (i.e. ladders, flashlights).
4. Determine the extent to which the building will be renovated and/or demolished.
5. Determine and investigate each building’s structural, mechanical, electrical and roofing systems.
6. Perform a comprehensive investigation of areas to identify materials to be sampled and/or assumed to contain asbestos.
7. Clearly note uninspected areas and explain why they were not surveyed (i.e. “confined space,” buried materials, restrictions generated by the property owner, etc.)

8. Create sampling plan based on suspect materials present and requirements of an Asbestos Survey in Section 9.03.
9. Collect bulk samples of all suspect materials that will be disturbed and submit those not assumed to be asbestos to a certified laboratory for analysis.
10. Document all suspect asbestos-containing materials and their locations.
11. Document where asbestos-containing materials exist and record their location, condition, and quantity. "Location" shall include a schematic and/or other description showing the locations where each bulk asbestos sample was taken.

#### Destructive Investigation

1. Many asbestos containing materials are located in concealed areas such as wall cavities, below ground level, and other hidden spaces. The agency expects destructive investigation, as necessary, to gain access to hidden spaces and to inspect them for suspect asbestos-containing materials. The following guidelines constitute reasonable criteria for locating concealed materials:
2. Identify the different building systems which may involve concealed asbestos materials such as the heating/cooling system, domestic water lines, roof drainage lines, miscellaneous piping lines, underlay roofing, etc.
3. Open hidden areas and inspect each system in at least three (3) locations for each area of construction.
4. Focus the inspection on likely areas for suspect materials (i.e. where insulated pipe enters wall or ceiling, behind heating units, etc.).
5. Examine additional areas if results of inspection are inconsistent.
6. Clearly list all hidden areas which have not been inspected, and explain why they were not inspected. Reasons why may include: (1) records showing recent access to such spaces and sample results, (2) safety hazards, and (3) restrictions imposed by the property owner.
7. For those asbestos surveys that include inaccessible concealed spaces, a qualified person should be available during the project to address the potential of unidentified suspect asbestos-containing materials becoming disturbed once work begins.
8. AHERA Building Inspectors may discuss with the property owner the possible need to disconnect electrical power or other utilities during the destructive phase of the investigation. It may also be desirable for the property to be unoccupied.

#### Survey Report Content

1. The survey report should list the results of an asbestos survey in a manner to promote ease of comprehension. The survey report should also contain an introductory summary that briefly explains what will be found in the report. Documentation such as field data sheets and photographs should appear in the appendices of the report.
2. Minimum asbestos survey report contents are specified in Section 9.03.C.

#### Background Information and Scope of Work

1. Date(s) of field inspection
2. Date of report submittal
3. Building address
4. Building owner including address and contact person
5. Description of area surveyed including any exclusions or limitations (be specific).
6. Description of building status after survey, if known (extent to which the building is to be renovated and/or demolished)
7. Name or report writer(s) and reviewer(s) including AHERA accreditation information

#### Building Description:

1. Building name, if any
2. Type of building (e.g. owner-occupied, single-family residence; residential, but not owner-occupied, single-family residence; commercial; warehouse; retail; etc.)
3. Special features of building
4. Type of business
5. Approximate age of structures and dates of past renovations
6. Building systems such as structural system, mechanical system, roofing system, non-structural systems, miscellaneous information, etc.

#### Building Inspector/Firm Affiliation/ Laboratory Information:

1. Name(s) of Building Inspector(s) including certification number and certification expiration date
2. Inspector firm information including name, address, and phone number
3. Laboratory name and NVLAP certification
4. Special instructions regarding type of analysis requested such as PLM, point counting, or TEM

#### Survey Methodology:

1. Describe the inspection procedure, including scope of the survey. The inspection must be in accordance with the sampling protocol in 40 CFR 763.86 and as required per Spokane Clean Air Regulation I, Article IX, Sections 9.02.G and 9.03.
2. Inventory the locations of homogeneous areas where samples are to be collected.
3. Describe the sampling methods employed.
4. If hidden or inaccessible areas are to be disturbed or are likely to be disturbed, provide a detailed description of the procedure used to find hidden suspect materials. For example, if asbestos pipe insulation is suspected in a wall cavity, describe by location where the wall was opened for examination. It is recommended that each building and non-structural system suspected of having asbestos materials be sampled at a minimum of three locations.

#### Asbestos Identification Process:

1. Prepare sample and suspect asbestos material location plan.
2. List all materials sampled and tested, including test results and date(s) collected.
3. List all materials assumed to contain asbestos, being specific in terms of quantity and location.
4. List whether homogeneous areas identified are surfacing material, thermal system insulation, or miscellaneous material and indicate the amount of suspect materials sampled (be specific).
5. Describe the location where each bulk sample is collected.

#### Notice to Renovation and Demolition Contractors

1. In the inspection report, describe any concealed areas that were not surveyed that may contain undiscovered asbestos-containing materials.
2. Clearly list all hidden areas and list all potential asbestos-containing materials that may be found.

#### Procedure for Communicating Survey Findings to Affected Parties

1. The AHERA Building Inspector should assist the property owner in communicating findings (copy of survey report) to persons who may come in contact with any identified or suspect asbestos-containing materials. Such persons may include contractors, subcontractors, building occupants/guests, custodial and maintenance staffs, occupants of neighboring buildings, etc.
2. A complete copy of an asbestos survey shall be posted by the property owner or the owner's agent in a readily accessible and visible area at the work site for all persons at the work site. If an AHERA Building Inspector determines there are no suspect asbestos-containing materials in the work area, this determination shall be posted by the property owner or the owner's agent in a readily accessible and visible area at the work site for all persons at the work site.

## Sample Asbestos-Containing Material List

- Acoustical ceiling texture (“popcorn”)
- Asphalt flooring
- Base flashing
- Blown-in insulation
- Boiler/tank insulation
- Breaching insulation
- Brick mortar
- Built-up roofing
- Caulking/putties
- Ceiling tiles/panels/mastic
- Cement board/transite
- Cement pipes
- Cement roofing shingles
- Chalkboards
- Construction mastics
- Duct tape/paper
- Ductwork flexible connections
- Electrical cloth
- Electrical panel partitions
- Electrical wiring insulation
- Elevator brake shoes
- Fire blankets
- Fire curtains/hose
- Fire doors
- Fireproofing
- Furnace insulation
- Gray roofing paint
- High temperature gaskets
- HVAC duct insulation
- Incandescent light fixture backing
- Joint compound/wallboard
- Laboratory hoods/table tops
- Laboratory fume hood
- Mudded pipe elbow insulation
- Packing materials
- Paper fire box in walls
- Paper on backside of fiberglass insulation
- Pipe insulation/fittings
- Plaster/ wall joints
- Poured flooring
- Rolled/hot mopped roofing
- Roofing paper
- Roofing shingles
- Sink insulation
- Spray-applied insulation
- Stucco
- Sub flooring slip sheet
- Textured paints/coatings
- Vapor barrier
- Vinyl floor tile/mastic
- Vinyl sheet flooring/mastic
- Vinyl wall coverings
- Window glazing

**Note:** This list does not include every product that may contain asbestos. It is intended as a general guide to show which types of materials may contain asbestos.

## Checklist

The following is a checklist to help an AHERA Building Inspector perform a thorough Asbestos Survey. The checklist was developed to provide guidance for performing an Asbestos Survey. The checklist is not intended to be a substitute for applicable regulations. Spokane Clean Air recommends that the asbestos survey report include the information listed below. For minimum asbestos survey report contents, refer to Spokane Clean Air Regulation I, Section 9.03.C.

- The purpose of the inspection (e.g., survey for planned demolition of west wing).
- Survey limitations such as uninspected areas (e.g., Building was occupied and destructive sampling techniques could not be performed. Destructive sampling techniques should be performed prior to demolition). If there were no uninspected areas, it should be noted.
- Any supporting information used for preparing the asbestos survey, including a review of any existing information about the structure(s) such as design drawings, as-built drawings, project specifications, existing survey or laboratory information, etc.
- Date that the inspection was performed.
- Building use.
- Name of the structure, if applicable (e.g., Amazon Retirement Center).
- Address of the structure.
- Name, address and telephone number of the building owner(s) and contact person(s).
- Description of the structure(s) inspected (e.g., bridge, gasoline station canopy, 2 story house, commercial warehouse, etc.)
- Special building features.
- Approximate age of structure(s).
- Dimensions of the structure(s) and the building areas inspected (e.g., drawings, combined with text, generally work very well).
- Dates of past renovations.
- Building systems (e.g., structural system, mechanical system, roofing system, etc.).
- Description of the inspection procedures used to identify the locations of all suspect ACM (e.g., a visual inspection performed during an initial building walk-through that included collecting bulk samples of suspect ACM in accordance with EPA protocol, including destructive sampling techniques.).
- Identification of all homogeneous areas of suspect ACM, including a description of the following:
  - Material description.
  - Quantity.
  - Texture.
  - Condition (e.g., whether the material is fibrous or non-fibrous, in poor, fair or good condition, etc.).
  - Color.
  - Location of homogeneous areas of suspect ACM and locations where each bulk asbestos sample was taken.
  - Other pertinent information.
- Indication of whether the suspect ACM is surfacing material, thermal system insulation, or miscellaneous material.
- Indicate whether the material is in layers.
- For each homogeneous area that is not assumed to be ACM, collect and submit bulk samples for analysis in accordance with the sampling protocol in 40 CFR Part 763.86. The asbestos survey should show that proper EPA sampling protocol was used. The number of samples required to demonstrate that a suspect material does not contain asbestos is determined by the material type and measured quantity. See the specific categories listed on the enclosed *Sampling Worksheet*.

- List of all materials not sampled and state why they were not sampled (e.g., 400 sq. ft. of accoustical spray-on textured “popcorn” ceiling material in room A45D was assumed to be ACM and was not sampled).
- Laboratory results that show bulk sample numbers, sample descriptions, and asbestos content.
- For asbestos-containing materials, the following information is required:
  - Describe the color of each asbestos-containing material.
  - Identify the location of each asbestos-containing material (e.g., schematic and/or other description).
  - Provide the approximate quantity of each asbestos-containing material (generally in square feet or linear feet).
- Identification of ACM as friable or nonfriable.
- Name of person that performed the analysis.
- Complete documentation from the laboratory, including the following:
  - Name.
  - Address.
  - Telephone number.
  - National Voluntary Laboratory Accreditation Program (NVLAP) certification. It’s important to confirm that the laboratory is currently National Institute of Standards and Technology (NIST) accredited. For more information, go to <http://ts.nist.gov>.
  - All necessary signatures such as microscopist and laboratory manager (e.g., on chain of custody, sample analysis results, etc.).
- AHERA Building Inspector information, including the following:
  - Name.
  - Signature.
  - Address.
  - Telephone number.
  - Certification number.
  - Certification expiration date.
  - Name and address of the entity providing AHERA Building Inspector certification
  - Report writer(s) and reviewer(s) name and AHERA accreditation information.
- A summary page of results at the front of the survey report to help communicate results with the client.
- Spokane Clean Air address, telephone number, and web page address for anyone that has questions regarding asbestos regulations in Spokane County.

**Notes:**

- Some AHERA Building Inspector training providers may have sample inspection report formats that you can use. Contact your training provider for more information.
- The intent of this asbestos survey guidance is to help users comply with Spokane Clean Air’s asbestos survey requirements. The intent of any report generated from this guidance is not for it to serve as a an asbestos design document for obtaining bids from abatement contractors. Contact an asbestos abatement contractor or consultant for more information regarding getting bids for asbestos abatement.

## Sampling Worksheet

Date \_\_\_\_\_ Inspector \_\_\_\_\_ Site Address \_\_\_\_\_

### Homogeneous Surfacing Material

Material Type	Location	Amt.	Presumed ACM	1 Sample Positive	≤1000 sq. ft. 3 Samples	>1000 sq. ft. ≤ 5000 sq. ft. 5 Samples	>5000 sq. ft. 7 Samples	Result + or -
#1			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#2			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#3			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#4			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#5			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### Homogeneous Thermal System Insulation

Material Type	Location	Amt.	Presumed ACM	1 Sample Positive	3 Samples	Result + or -
#1			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#2			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#3			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#4			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#5			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### Homogeneous Patched Thermal Insulation

Material Type	Location	Amt.	Presumed ACM	1 Sample if < 6 ln. ft. or sq. ft.	3 Samples	Result + or -
#1			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#2			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#3			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#4			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
#5			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### Mechanical System Insulation

Material Type	Location	Amt.	Presumed ACM	1 Sample Positive	No. of Samples*	Result + or -
#1			<input type="checkbox"/>	<input type="checkbox"/>		
#2			<input type="checkbox"/>	<input type="checkbox"/>		
#3			<input type="checkbox"/>	<input type="checkbox"/>		
#4			<input type="checkbox"/>	<input type="checkbox"/>		

### Miscellaneous Materials (Friable)

Material Type	Location	Amt.	Presumed ACM	1 Sample Positive	No. of Samples*	Result + or -
#1			<input type="checkbox"/>	<input type="checkbox"/>		
#2			<input type="checkbox"/>	<input type="checkbox"/>		
#3			<input type="checkbox"/>	<input type="checkbox"/>		
#4			<input type="checkbox"/>	<input type="checkbox"/>		

### Miscellaneous Materials (Non-Friable)

Material Type	Location	Amt.	Presumed ACM	1 Sample Positive	No. of Samples*	Result + or -
#1			<input type="checkbox"/>	<input type="checkbox"/>		
#2			<input type="checkbox"/>	<input type="checkbox"/>		
#3			<input type="checkbox"/>	<input type="checkbox"/>		
#4			<input type="checkbox"/>	<input type="checkbox"/>		

CHECK BOX WHERE APPROPRIATE

\* Must be one or more samples. See 40 CFR 763.86 - Sampling