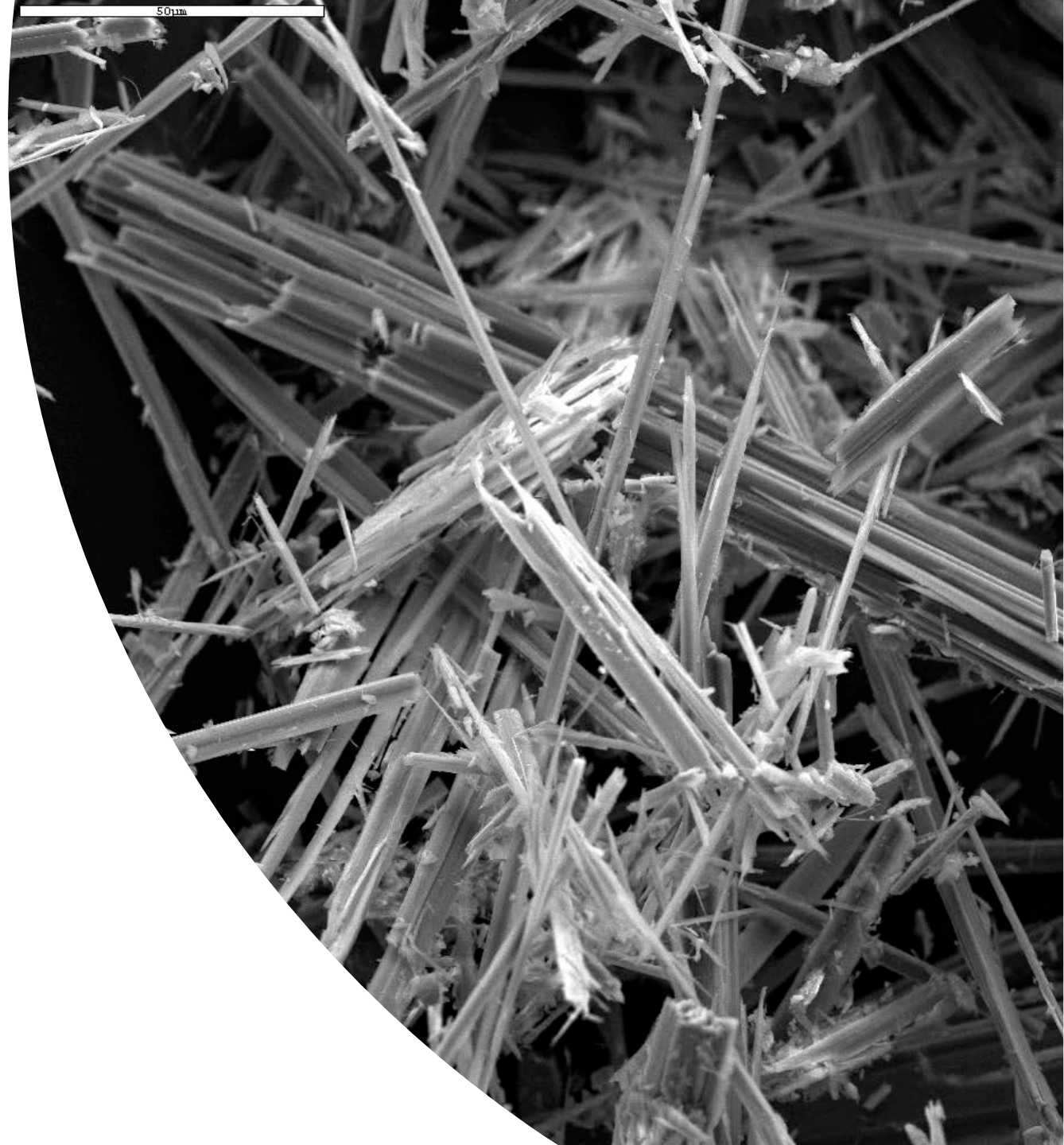




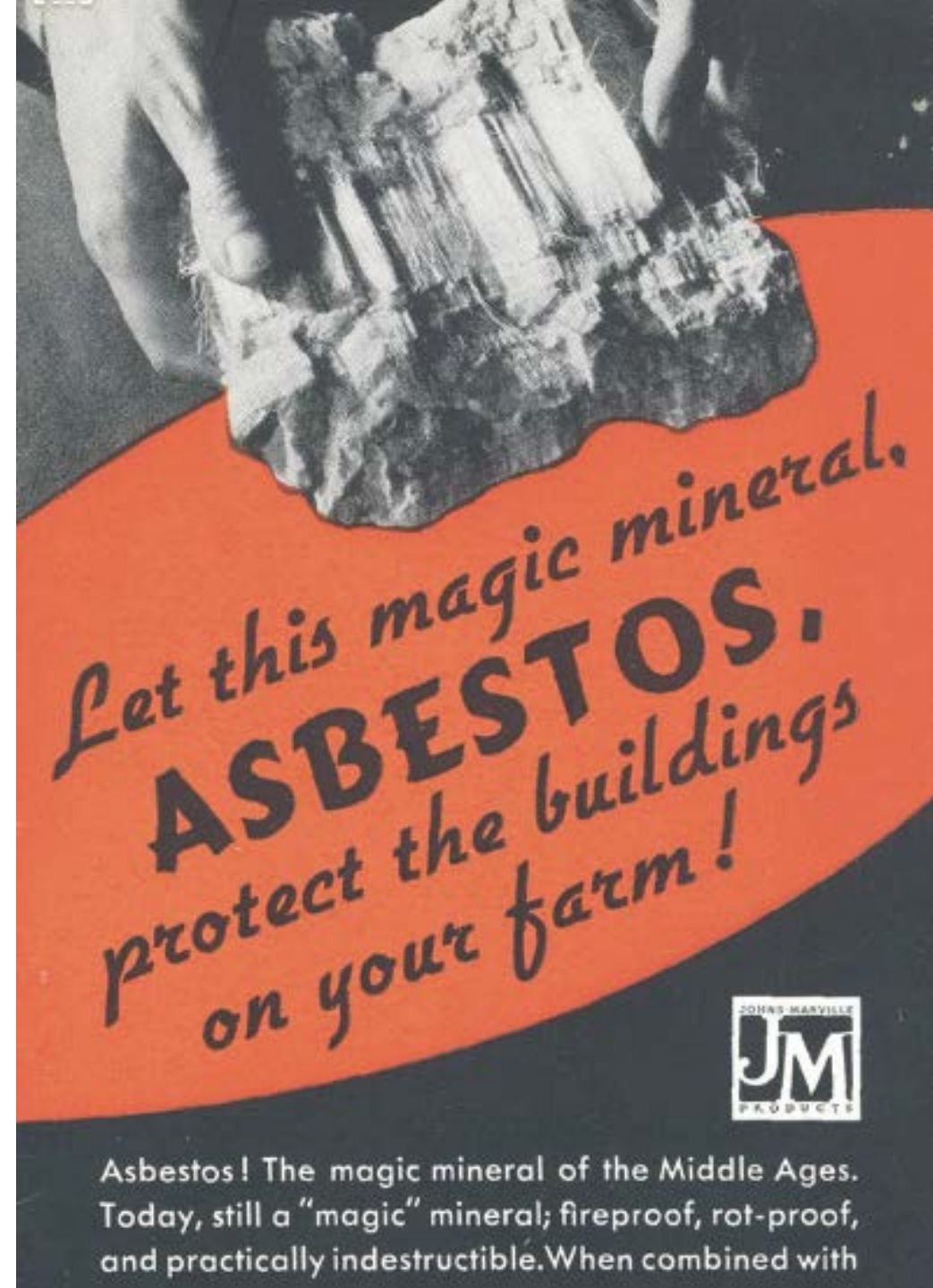
Asbestos Renovation and Demolition Projects





Presentation Points

- Asbestos Overview
- Demolition and Renovation Requirements
- Proper Handling and Disposal
- Training Requirements
- Notifications
- Common Areas of Noncompliance





Asbestos

- Asbestos is a naturally occurring mineral that began being mined in the 19th century for its desirable physical properties such as sound absorption, fire-resistance, light weight, and durability.





Asbestos Regulation

1971

Asbestos identified as a Hazardous Air Pollutant (HAP)

1973

EPA promulgated the Asbestos NESHAP

1982

EPA delegates primary authority for implementation and enforcement of Asbestos NESHAP to State of Florida



Asbestos NESHAP

40 CFR Part 61, Subpart M



Sets standards for:

- Demolition and renovation of facilities
- Waste disposal for demolition and renovation, including collection, processing, packaging, and transportation
- Active waste disposal sites that receive asbestos



Asbestos Removal Program

- Florida Department of Environmental Protection (DEP) administers an asbestos removal program under Chapter 62-257 Florida Administrative Code (F.A.C.)
- Program's intent is to prevent the release of asbestos fibers to the outside air during demolition or renovation activities.
 - ✓ Establishes fees based on materials
 - ✓ Standardized form
 - ✓ Online form submittal



Asbestos Ban

- Not fully banned in the United States.
- Only the following:
 1. Flooring felt
 2. Commercial and specialty paper
 3. Rollboard
 4. Corrugated paper
 5. Spray-applied ACM
 6. Pipe and block insulation on facility components (boilers)
- New uses are prohibited.
- Importation!





Common Asbestos Containing Materials

- Spray-applied insulation
- Blown-in insulation
- Fireproofing materials
- HVAC duct insulation
- Boiler insulation
- Roofing shingles
- Roofing felt
- Fire doors
- Cement pipes
- Cement wallboard
- Cement siding
- Asphalt floor tile
- Vinyl floor tile
- Vinyl sheet flooring
- Flooring backing
- Concrete
- Caulking/putties
- Adhesives
- Wallboard
- Joint compounds
- Textured paints/coatings
- Construction mastics
- Decorative plaster
- Ceiling tiles/lay-in panels



ASBESTOS BUILDING

TYPICAL LOCATIONS FOR THE MOST COMMON ASBESTOS-CONTAINING MATERIALS

KEY

ROOF AND EXTERIOR WALLS

- 1 Roof sheets and tiles
- 2 Guttering and drainpipe
- 3 Wall cladding
- 4 Soffit/facia boards
- 5 Panel beneath window
- 6 Roofing felt and coating to metal wall cladding

BOILER, VESSELS AND PIPEWORK

- 7 Lagging on boiler, pipework, calorifier etc.
- 8 Damaged lagging and associated debris
- 9 Paper lining under non-asbestos pipe lagging
- 10 Gasket in pipe and vessel joints
- 11 Rope seal on boiler access hatch and between cast iron boiler sections
- 12 Paper lining inside steel boiler casing
- 13 Boiler flue

CEILING

- 14 Spray coating to ceiling, walls, beams/columns
- 15 Loose asbestos in ceiling/floor cavity
- 16 Tiles, slats, canopies and firebreaks above ceilings
- 17 Textured coatings and paints

INTERIOR WALLS/PANELS

- 18 Loose asbestos inside partition walls
- 19 Partition walls
- 20 Panel beneath window
- 21 Panel lining to lift shaft
- 22 Panelling to vertical and horizontal beams
- 23 Panel behind electrical equipment
- 24 Panel on access hatch to service riser
- 25 Panel lining service riser and floor
- 26 Heater cupboard around domestic boiler
- 27 Panel behind/under heater
- 28 Panel on or inside, fire door
- 29 Bath panel

FLOORING MATERIALS

- 30 Floor tiles, linoleum and paper backing, lining to suspended floor

AIR HANDLING SYSTEMS

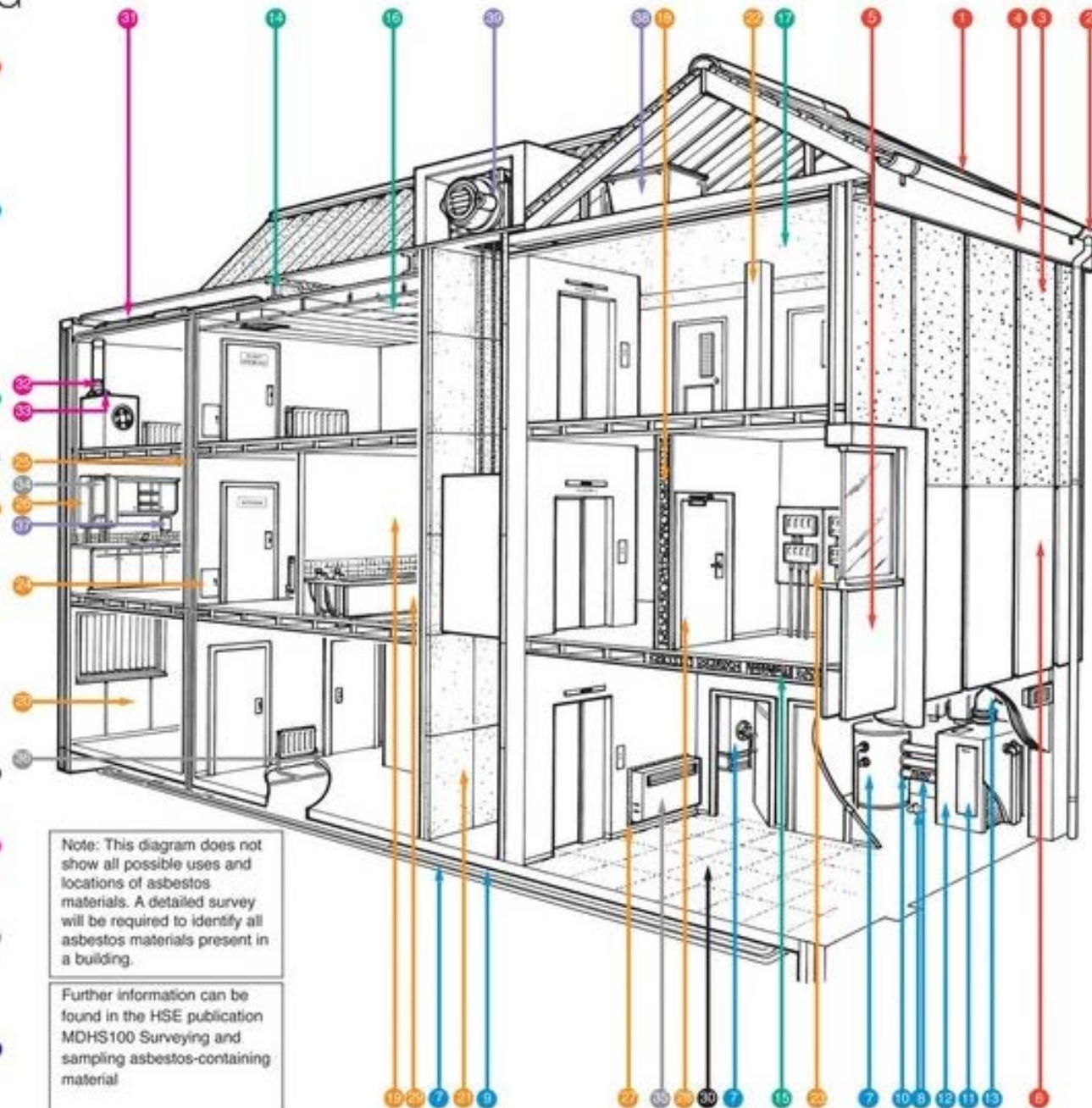
- 31 Lagging
- 32 Gaskets
- 33 Anti-vibration gaiter

DOMESTIC APPLIANCES

- 34 Gaskets, rope seals and panels in domestic boilers
- 35 'Caposil' insulating blocks, panels, paper, string etc in domestic heater
- 36 String seals on radiators

OTHER

- 37 Fire blanket
- 38 Water tank
- 39 Brake/clutch lining



Note: This diagram does not show all possible uses and locations of asbestos materials. A detailed survey will be required to identify all asbestos materials present in a building.

Further information can be found in the HSE publication MDHS100 Surveying and sampling asbestos-containing material



Key Terms

Facility

Facility Component

Residential

Demolition

Renovation

Asbestos-Containing Material (ACM)

Regulated ACM (RACM)

Threshold Limits



Facility

Institutional, commercial, public, industrial, or residential structure*, installation, or building



Facility Component

Any part of a facility, including equipment.





Residential

Asbestos NESHAP *does not* regulate single family, residential homes, provided:

- 1) They have four or fewer dwellings. (i.e. townhome)
- 2) Are not being demolished/renovated as part of a larger plan of development. (i.e. road expansion)
- 3) Structure was not previously subject to the asbestos NESHAP. (i.e. store converted to a home)

Condominiums/apartments that have more than four units or multiple homes being demolished as a large scale project are defined as a facility, and therefore subject to the Asbestos NESHAP.



Demolition vs. Renovation





Demolition

- Wrecking, or taking out, of any load-supporting structural member of a facility together with any related handling operations, or the intentional burning of any facility.
 - Examples:
 - Practice fire burns
 - Sinking a ship
 - Building explosion or implosion
 - Moving a building from its foundation





Renovation

- Alteration in any way of a facility, or of one or more facility components.
 - Examples:
 - Floor tile removal
 - Popcorn ceiling removal
 - Pipe replacement/removal
 - Removal of siding
 - Roof replacement





Asbestos Containing Material

&

Regulated Asbestos Containing Material



Asbestos Containing Materials (ACM): Any material which contains more than 1% asbestos as determined by Polarized Light Microscopy (PLM)

Friable: ACM that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure

Non-friable: ACM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure

Category I: Asbestos containing packings, gaskets, resilient floor covering, and asphalt roofing products (pliable materials)

Category II: Any other ACM, excluding Category I non-friable ACM (asphalt shingles, transite panels/siding)



Regulated Asbestos Containing Materials (RACM)



1

Friable ACM

2

Category I Non-friable ACM that will become friable due to demolition or renovation operations, such as sanding, grinding, cutting, or abrading

3

Category II Non-friable ACM that has a high probability of becoming or has become: crumbled, pulverized, or reduced to powder in the course of demolition or renovation operations



Threshold Limits

- Threshold limits of RACM:
 - 260 linear ft. on pipes.
 - 160 square ft. on other facility components.
 - 35 cubic ft. of facility components where length or area could not be measured previously.



Facility

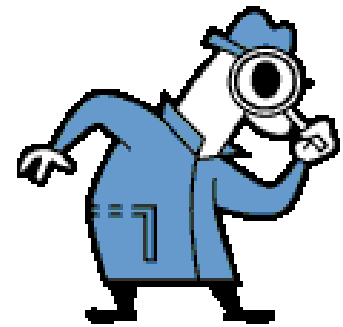
1. Does your facility have asbestos?
2. What type?
3. How much?
 - Threshold amounts?





Thorough Inspection

- To determine which requirements apply to demolitions or renovations, the facility must be thoroughly inspected for the presence of asbestos PRIOR to commencement of reno/demo activities.
 - ✓ All suspect materials need to be sampled
 - ✓ It does not matter how old the structure is
 - ✓ Inspection can be limited to affected areas





Category I & II

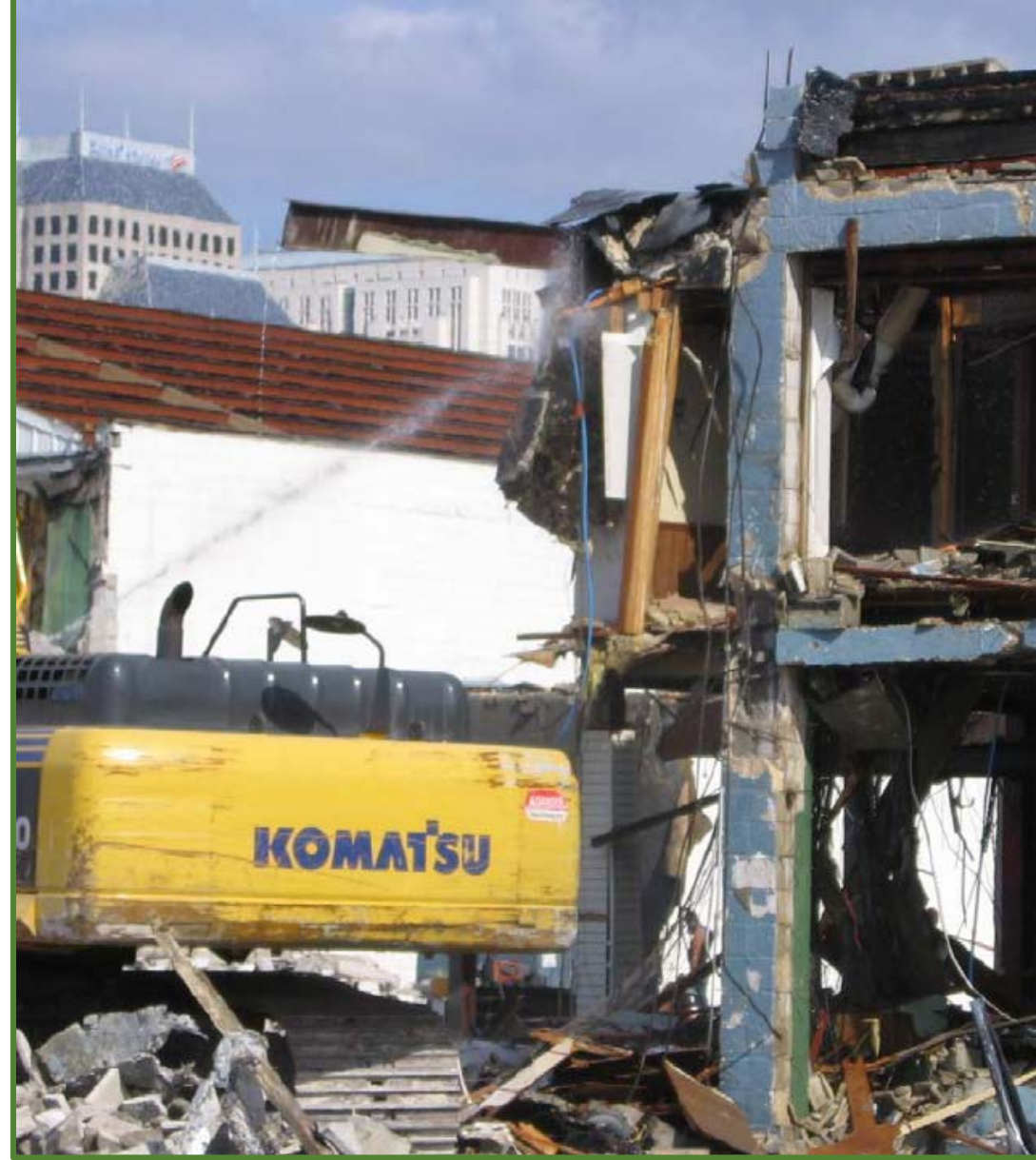
- Applicability of the Asbestos NESHAP for Category I and II ACM depends on:
 - 1) Condition of the material at the time of demolition or renovation,
 - 2) Nature of the operation to which the material will be subjected,
 - 3) Amount of ACM involved.





Demolition Requirements

- Thorough asbestos inspection.
- Notify at least 10 working days prior to the start of the demolition, *even if no asbestos is detected*.
- Remove regulated asbestos-containing materials above threshold limits prior to demolition.



Renovation Requirements

- Thorough asbestos inspection (only affected areas).
- Notify at least 10 working days prior to the start of renovation activities that would disturb regulated asbestos. (i.e. threshold amounts of RACM)





Proper Handling and Waste Disposal.

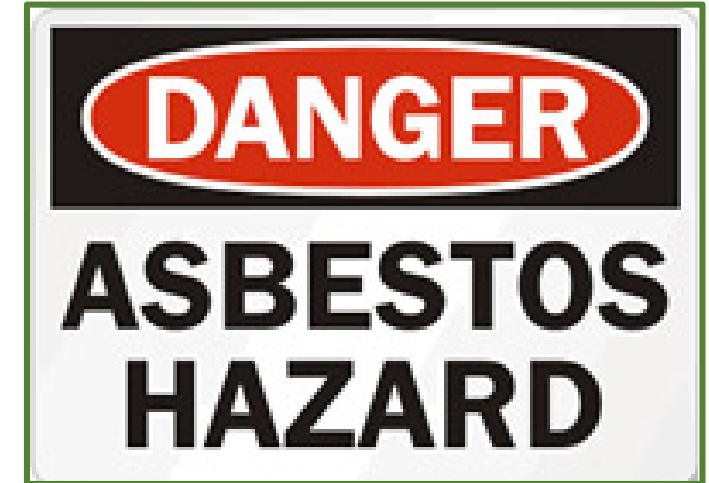
- Adequately wet asbestos-containing waste material.
- Seal all asbestos-containing waste material in leak-tight containers or wrapping.
- Label the containers, or wrapped materials, with OSHA warning labels.
- All asbestos-containing waste shall be deposited as soon as practical by the waste generator at an approved waste disposal site.





Proper Handling and Waste Disposal

- If transporting off-site, label materials with:
 - ✓ Name of the waste generator.
 - ✓ Location where waste was generated.
- Maintain shipment records.
 - ✓ Provide a copy to the disposal site.
- Mark vehicles used to transport asbestos-containing waste materials during the loading and unloading of waste so signs are visible.





Proper Waste Disposal Site

- Asbestos-containing waste materials may be accepted for disposal at a permitted Class I or III landfill.
- Each active waste disposal site that receives asbestos-containing waste material from a source covered under the NESHAP, shall meet the requirements of 40 CFR Part 61.154.
- Make prior arrangements with waste disposal site.





Training

- Asbestos NESHAP requires that at least one trained representative is on-site where regulated asbestos-containing material is stripped, removed, or otherwise disturbed at any regulated facility.
 - Evidence of the training must be posted and made available for inspection at the site.
 - The trained individual is required to receive refresher training.
 - Information about the training is available from the Florida Department of Business and Professional Regulation (DBPR).



Common Areas of Noncompliance

- Demolition/renovation without notification.
- No thorough asbestos inspection.
- Late, inaccurate, or incomplete notifications.
- Notifications not revised when start date or amount of ACM changes.
- Improper Best Management Practices (BMPs).
- Uncertified supervisor or untrained workers.
- Improper disposal methods.





Filling out a Notification

Online

<https://floridadep.gov/air/permitting-compliance/content/asbestos>

Or send a hardcopy!

https://floridadep.gov/sites/default/files/dep62_257_900%281%29_0.pdf



NOTICE OF DEMOLITION OR ASBESTOS RENOVATION

TYPE OF NOTICE (CHECK ONE ONLY): ORIGINAL REVISED CANCELLATION COURTESY

TYPE OF PROJECT (CHECK ONE ONLY): DEMOLITION RENOVATION

IF DEMOLITION, IS IT AN ORDERED DEMOLITION? YES NO

IF RENOVATION:

IS IT AN EMERGENCY RENOVATION OPERATION? YES NO

IS IT A PLANNED RENOVATION OPERATION? YES NO

I. **Facility Name** _____

Address _____

City _____ State _____ Zip _____ County _____

Site _____ Consultant Inspecting Site _____

Building Size _____ (Square Feet) # of Floors _____ Building Age in Years _____

Prior Use: School/College/University Residence Small Business Other _____

Present Use: School/College/University Residence Small Business Other _____

II. **Facility Owner** _____ Phone (____) _____ Email Address _____

Type of Notice:
Courtesy?
Original?

Type of Project:
Ordered?
Planned?
Emergency?

**What qualifies as a small business?
Residence?**

Who did the asbestos survey?



What is a small business?

Per 288.703(1), F.S.:

- “Small business” means an **independently owned and operated business** concern that **employs 200 or fewer permanent full-time employees** and that, together with its affiliates, has **a net worth of not more than \$5 million** or any firm based in this state which has a Small Business Administration 8(a) certification. As applicable to sole proprietorships, the \$5 million net worth requirement shall include both personal and business investments

In order to qualify as a small business you can either submit the Small Business Administration Certification or prove that you meet the other criteria.



City _____ State _____ Zip _____
 III. **Contractor's Name** _____ Phone (____) _____ Email Address _____
 Address _____
 City _____ State _____ Zip _____

Is the contractor exempt from licensure under section 469.002(4), F.S.? YES NO

IV. Scheduled Dates: (Notice must be postmarked 10 working days before the project start date)

Asbestos Removal (mm/dd/yy) Start: _____ Finish: _____ Demo/Renovation (mm/dd/yy) Start: _____ Finish: _____

V. Description of planned demolition or renovation work to be performed and methods to be employed, including demolition or renovation techniques to be used and description of affected facility components. _____

Procedures to be Used (Check All That Apply):

<input type="checkbox"/> Strip and Removal	<input type="checkbox"/> Glove Bag	<input type="checkbox"/> Bulldozer	<input type="checkbox"/> Wrecking Ball
<input type="checkbox"/> Wet Method	<input type="checkbox"/> Dry Method*	<input type="checkbox"/> Explode	<input type="checkbox"/> Burn Down
OTHER _____			

*MUST OBTAIN PRIOR DEP APPROVAL BEFORE USING A DRY METHOD

VI. Procedures for Unexpected RACM:

VII. Asbestos Waste Transporter: Name _____ Phone (____) _____
 Address _____
 City _____ State _____ Zip _____

VIII. Waste Disposal Site: Name _____ Class _____
 Address _____
 City_ State _____ Zip _____

Who is the contractor?

Don't forget!
 Notice must be 10 working days before the project start date!

Who is taking the ACM and where is it going?



RACM or ACM?
List Cat I and Cat II non-friable material under ACM

[Redacted bar]

Amount of RACM or ACM*

RACM **ACM**

[]	[]	square feet surfacing material
[]	[]	linear feet pipe
[]	[]	cubic feet of RACM off facility components
[]	[]	square feet cementitious material
[]	[]	square feet resilient flooring

X. Fee Invoice Will Be Sent to Address in Block Below: (Print or Type)

Name:	[Redacted]
Address:	[Redacted]
City:	[Redacted]
State/Zip:	[Redacted]

*Identify and describe surfacing material and other materials as applicable: [Redacted]

I certify that the above information is correct and that an individual trained in the provisions of this regulation (40 CFR Part 61, Subpart M) will be on-site during the demolition or renovation and evidence that the required training has been accomplished by this person will be available for inspection during normal business hours.

[Redacted line] [Redacted line]

(Print Name of Owner/Operator)

(Date)

[Redacted line] [Redacted line]

(Signature of Owner/Operator)

(Date)



Frequently Asked Questions

ACM is non-friable; therefore, NESHAP does not apply, right?

If amount of ACM is over the threshold amount, it may need to be removed. Must consider whether renovation or demolition activities will cause the ACM to become friable (Drywall, popcorn).

Are there any exceptions to the 10-day notification?

An ordered demolition or emergency renovation is the only exception to the 10-day notice. A notification is still required—no later than the following working day.

What if RACM is mixed with non-asbestos containing materials, due to the inability to remove the RACM (such as for safety reasons)?

All debris is considered contaminated and must be kept adequately wet and disposed of as asbestos waste.



Additional Information

FDEP Asbestos Page:

<https://floridadep.gov/air/permitting-compliance/content/asbestos>

USEPA Asbestos Page:

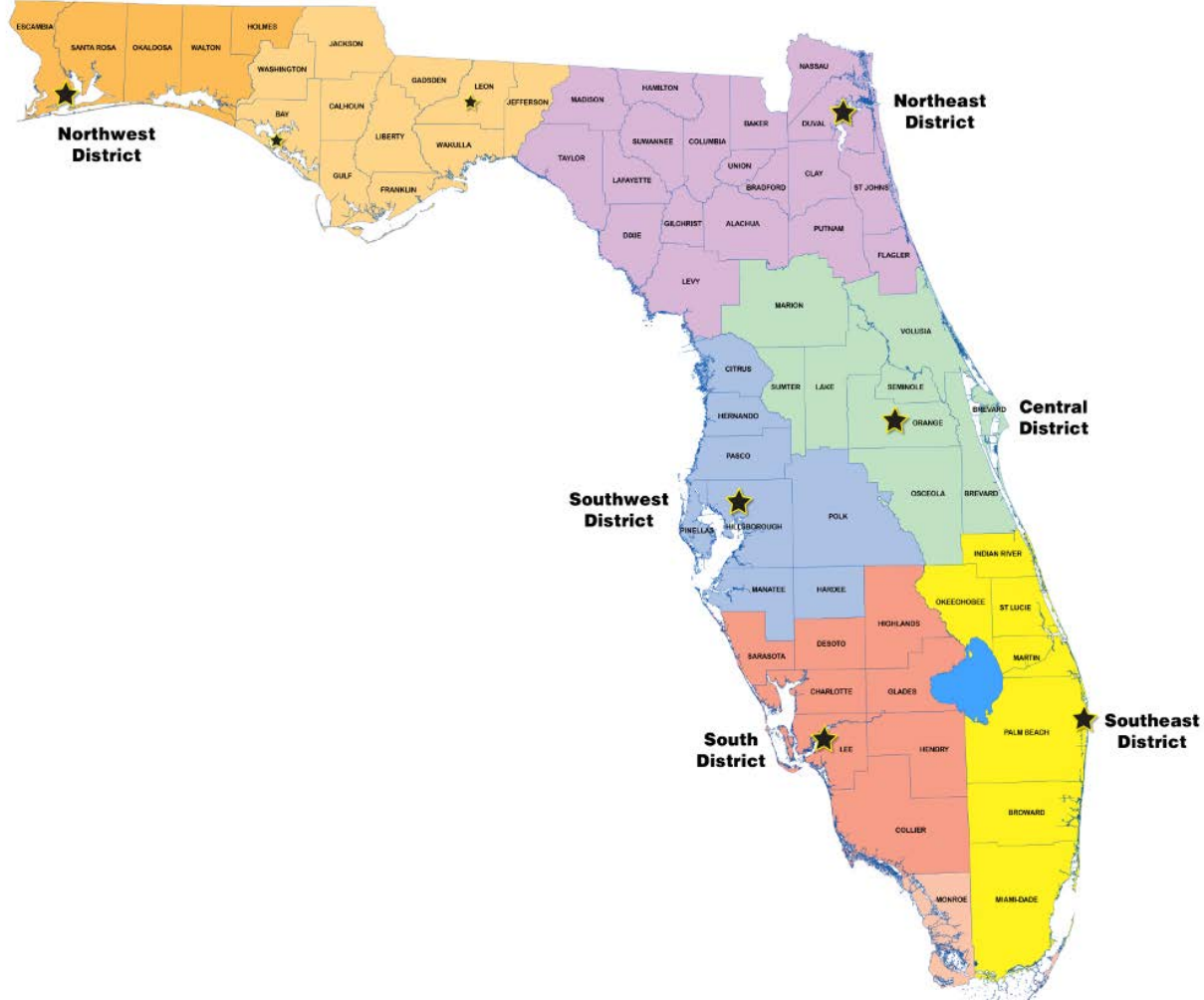
<https://www.epa.gov/asbestos>

Applicability Determination Index Search:

<https://cfpub.epa.gov/adi/>



Asbestos Contacts



District Air Compliance Contacts	Jurisdiction (Names in italics have local programs)	Main Phone Number
Central	Brevard, Lake, Marion, <i>Orange</i> , Osceola, Seminole, Sumter and Volusia counties	407-897-4100
Northeast	Alachua, Baker, Bradford, Clay, Columbia, Dixie, <i>Duval</i> , Flagler, Gilchrist, Hamilton, Lafayette, Levy, Madison, Nassau, Putnam, St. Johns, Suwannee, Taylor and Union counties	904-256-1700
Northwest	Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Okaloosa, Santa Rosa, Wakulla, Walton and Washington counties	850-595-8300
South	Charlotte, Collier, DeSoto, Glades, Hendry, Highlands, Lee, Monroe and <i>Sarasota</i> counties	239-344-5600
Southeast	<i>Broward</i> , <i>Miami-Dade</i> , Martin, Indian River, Okeechobee, <i>Palm Beach</i> and St. Lucie counties	561-681-6600
Southwest	Citrus, Hardee, Hernando, <i>Hillsborough</i> , Manatee, Pasco, <i>Pinellas</i> and Polk counties	813-470-5700



South District Contacts

Katie O’Gara

Office: (239) 344-5690

Katie.Ogara@FloridaDEP.gov

Renee Kwiat

Office: (239) 344-5673

Renee.Kwiat@FloridaDEP.gov

Brierra Mack

Office: (239)344-5607

Brierra.Mack@FloridaDEP.gov



