

Asbestos Removal, Renovation, and Demolition

Why is Asbestos Harmful?

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Health Risks

20 U.S. Code § 3601 - Congressional statement of findings and purposes
§ 3601.

Congressional statement of findings and purposes

(a) The Congress finds that—

(1) exposure to **asbestos** fibers has been identified over a long period of time and by reputable medical and scientific evidence as significantly increasing the incidence of cancer and other severe or fatal diseases, such as asbestosis;

(2) medical evidence has suggested that **children** may be particularly vulnerable to environmentally induced cancers;

(3) medical science has not established any minimum level of exposure to **asbestos** fibers which is considered to be safe to individuals exposed to the fibers;

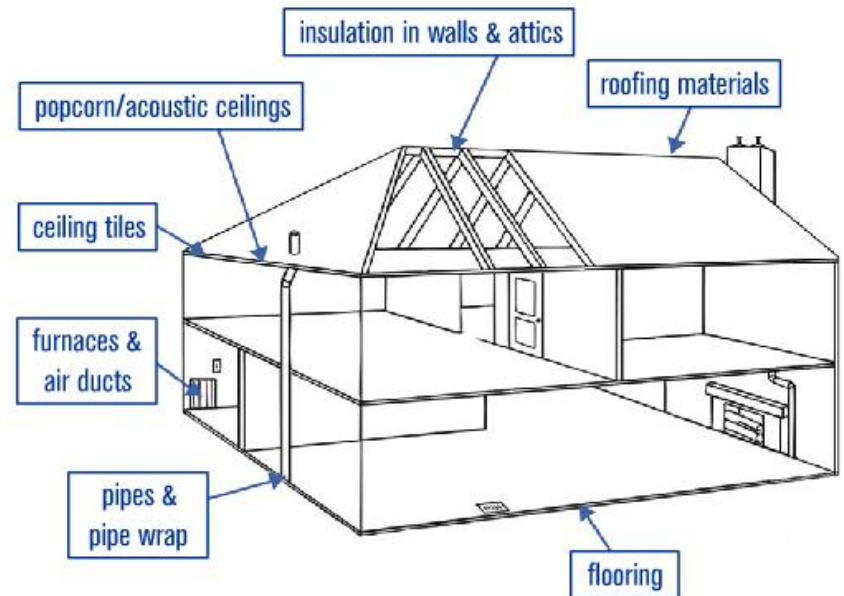
(4) substantial amounts of **asbestos**, particularly in sprayed form, have been used in **school buildings**, especially during the period 1946 through 1972;

Where Asbestos is Found?

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- Common until 1980's
- Still found in many buildings

WHERE IS IT FOUND?



Current Asbestos Use

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Examples of Asbestos-Containing Products Not Banned

- Pipeline Wrap
- Roofing Felt
- Vinyl Floor
- Cement Pipes
- Roof Coatings



EPA Determination



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, Ca. 94105-3901

April 20, 1994

Chris Ralph
Washoe County District Health Department
Air Quality Management Division
1001 East 9th Street
Reno, Nevada 89512

Dear Mr. Ralph:

Thank you for your inquiry regarding the applicability of the Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP). Your specific question deals with whether the NESHAP demolition and renovation standards apply to structures built recently, during a period when many asbestos containing building materials were banned.

There is no waiver of the Asbestos NESHAP based on the date a structure is built. All notification, inspection, and work practice standards mandated by the regulation must be followed regardless of the date the structure was built.

What is a Facility?

- ▶ ...Institutional, commercial, public, industrial or residential structure, installation, or building...any ship; and any ACWM disposal site

- ▶ **Non-residential**

- ▶ **Examples**

- Hospital
- Military installation
- Office building
- Chemical/Processing/Power plant
- Shopping mall
- School building(s)
- Post office
- Billboard



What is a Facility?

▶ Non-residential

▶ More Examples

- Bridges
- Tunnels
- Docked ships.
- A church
- A amusement park or State fairgrounds.
- A jail or prison.
- A nursing home for disabled persons.
- A parking garage.
- A farm.
- Water Tower



What is a Facility?

► Residential

- A single residential building having more than 4 units

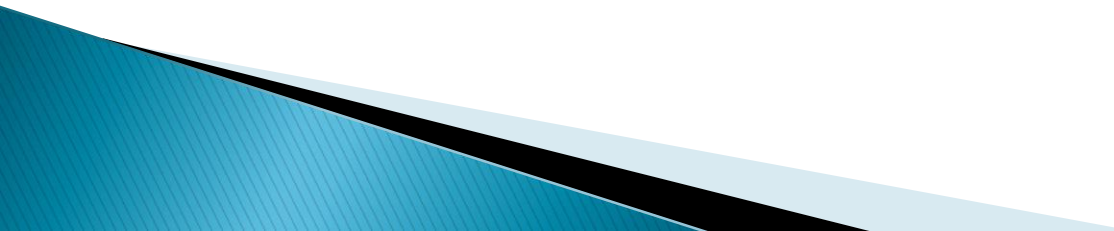


(a) Applicability

RULE 1206. ASBESTOS REMOVAL, RENOVATION, AND DEMOLITION
(Adopted & Effective *(date of adoption)*)

(a) APPLICABILITY

Except as otherwise provided in Section (b), this rule is applicable to owners and operators of **any renovation or demolition operation.**



(b)Exemptions

(b)(1)(i) Exemption to Rule 1206

- Rule 1206 does not apply to **renovations** of facilities involving the disturbance of any **combination** of building materials in any consecutive 365-day period totaling:
 - ❑ <100 ft² of facility components or
 - ❑ <20 ft³ of materials removed from facility components where the area could not be measured prior to removal, stripping or disturbance.
- ❖ If the amount of building materials disturbed exceeds the above thresholds, or a demolition of a facility will occur- **a facility survey is required beforehand.**

Exemptions

Other Exemptions to the Rule are:

- Residential structure(s) that contains four or fewer dwelling units.



- At a single mobile, manufactured, or modular home.



(b)Exemptions

- ❑ Residential Mobile or modular structures are not exempt of Rule 1206 when used for the following purposes:
 - ▶ Institutional
 - ▶ Commercial
 - ▶ Public
 - ▶ Industrial Purpose



(b)Exemptions

One residential structure with four or fewer units, unless:

- More than one residential structure (mobile home or house)
- Detached
- Common owner/operator
- Same property
- Non-contiguous property when part of same commercial Project



(b) Exemptions

RACM Removal Exemption Thresholds

<u>Old</u>	<u>Existing</u>
• <160 ft² on Facility Components	• <100 ft² on facility components and pipes
• <260 linear feet on pipes	
• <35 ft³ of materials removed prior to removal from facility components where the area could not be measured prior to , stripping, or disturbance.	• <20 ft³ of materials removed prior to removal from facility components where the area could not be measured prior to , stripping, or disturbance.

(b)Exemptions

- ▶ **Rule 51 – Public Nuisance**
 - If asbestos is in a common area & the facility is occupied or accessible to the public

(d) Facility Survey Requirements

- Facility survey is required to determine presence of asbestos (old & new buildings)
- Must be conducted by personnel with the following certifications:
 - ✓ Completion of EPA–Approved Building Inspector Course
- Certified Asbestos Consultant and Site Surveillance Technician meet the EPA Building Inspector Course requirements
- **Note**: Certification requirements of other Agencies may apply!!!!!!!!!!!!!!!!!!!!!!



(d) Facility Survey Requirements

- Suspect Material are required to be analyzed for asbestos prior to Renovation/Demolition.
- Suspect Materials that are required to be analyzed are listed in the definition as any material with a propensity to contain: RACM, Category I and II Non-Friable ACM, or building material that have a history of manufacture involving asbestos but not limited to:



Suspect Materials

□Friable if Asbestos Containing

- ▶ Acoustic ceiling material and tiles
 - ▶ Paper backing on vinyl sheet flooring/vinyl tiles
 - ▶ Insulating Materials
 - ▶ Pipe insulation
 - ▶ Furnace and Boiler Components, Furnace and Stove Vents, Walls, floors and ceiling around boilers, air ducts and air duct connections
 - ▶ Duct Wrap
 - ▶ Ceiling tiles
 - ▶ Fireproofing materials
 - ▶ Thermal paper products
 - ▶ Wallboard Materials Including tape, joint compounds, and texturing compounds,
- 

Friable (Suspect Materials)

- ▶ Blown-in insulation



Friable (Suspect Materials)

- ▶ Pipe insulation



Friable (Suspect Materials)

- ▶ Duct insulation



Friable (Suspect Materials)

- ▶ Fireproofing materials
 - Usually on structural steel

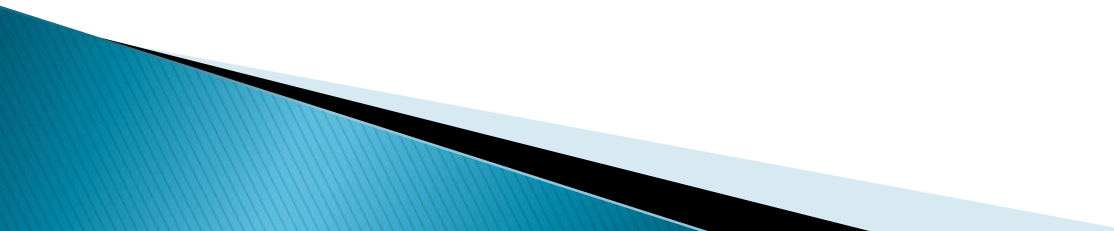


Suspect Materials

❑ Category I Non-friable if Asbestos containing:

- floor tiles
- Sheet Vinyl Flooring
- Linoleum
- Roofing asphalt Products
- Packings
- Gaskets

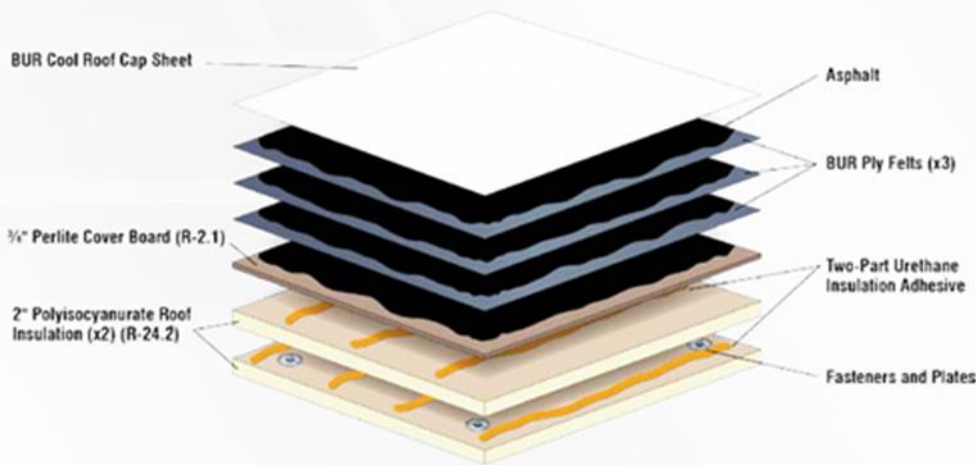
Reminder: Category I Non-friable ACM is not regulated unless in poor condition or made friable by mechanical methods (subjected to sanding, grinding, cutting or abrading).



Non-Friable Suspect Materials

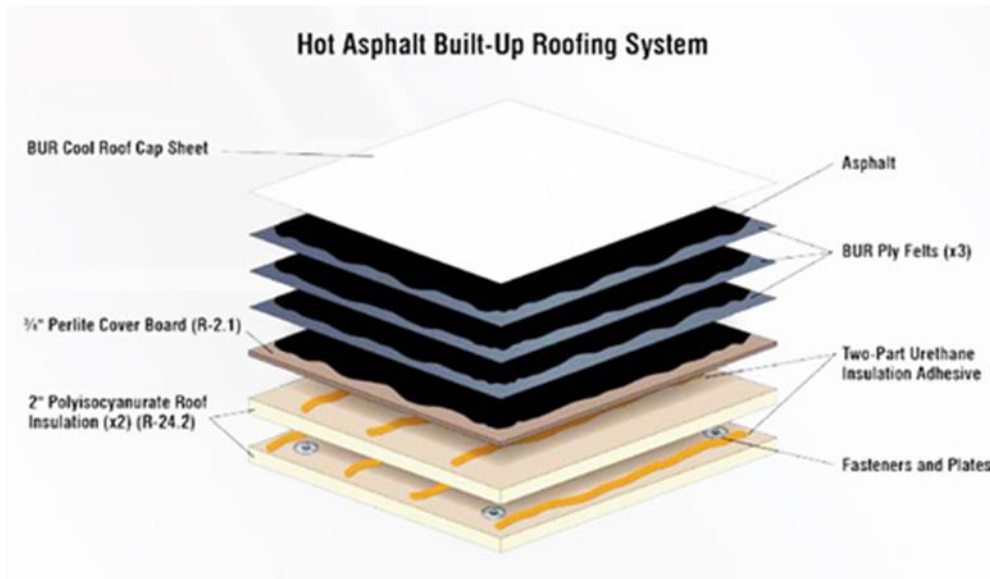
- ▶ Category I non-friable material
 - Roofing asphalt

Hot Asphalt Built-Up Roofing System



Non-Friable Suspect Materials

- ▶ Category I non-friable material
 - Roofing felts



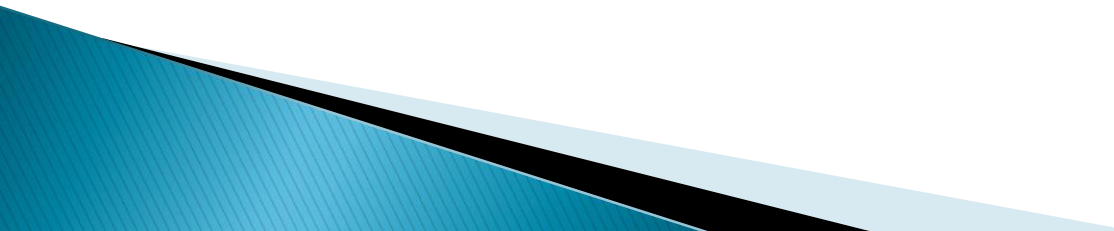
Suspect Materials

❑ Category II Non-friable if Asbestos containing:

- Cementitious/Concrete like products
 - Transite materials
 - Roof tiles
 - Shingles
 - Sidings
 - Pipes
 - Stucco/plaster
- Mastics and adhesives/putty

Reminder: Category II Non-Friable ACM is not regulated unless in poor condition or crumbled, pulverized or reduced to powder by hand pressure.

Cementitious materials are required to be removed prior to a demolition.



Non-Friable Suspect Materials

- Roof putty



Non-Friable Suspect Materials

- ▶ Category II non-friable material
 - Transite material
 - Roof tiles



Non-Friable Suspect Materials

- ▶ Category II non-friable material
 - Transite material
 - Shingles



Non-Friable Suspect Materials

- ▶ Category II non-friable material
 - Transite material
 - Sidings



Non-Friable Suspect Materials

- ▶ Category II non-friable material
 - Stucco/Plaster



Non-Friable Suspect Materials

- ▶ Category II non-friable material not listed in definition of suspect materials but may also contain asbestos
 - Paint



(d) Facility Survey Requirements

Additional Facility Survey Requirements:

- Survey required only in area to be disturbed.
- Facility survey has no expiration date providing no changes are made to the facility since the survey was conducted.
- Must be maintained onsite and available to the inspector via hard copy or electronic version.

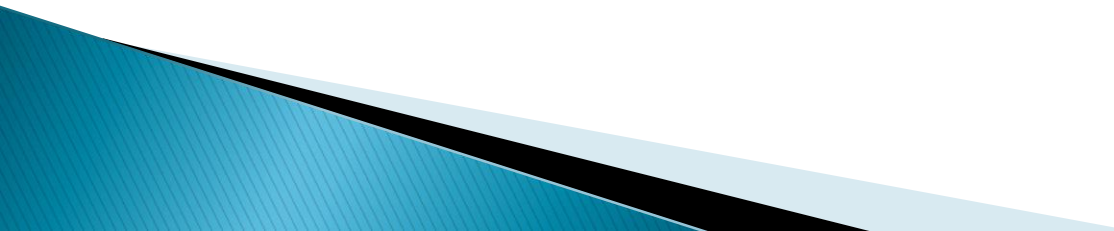
(d) Facility Survey Requirements

- A listing, location, and percent content of asbestos of all suspect materials sampled and analyzed or assumed to be RACM.

Asbestos Containing Materials (>1%)

Sample	Sample Location	Sample Description	% & Type of Asbestos	Friability	Approx. Amount
1	Kitchen	Square Pattern Sheet Vinyl	15% Chrysotile	Friable	400 s.f. Total All
2	Hall				
3	Laundry Room				
10	Bathroom 1	Black 9x9 Floor Tile	8% Chrysotile	Non-Friable	400 s.f. Total All
11	Bathroom 1				
12	Master Bedroom Closet				
32-34	Attic Ducts, 3 Spots	Gray Duct Insulation	30% Chrysotile	Friable	350 l.n. Total All
38-40	Workshop Bench, 3 spots	Tan Speckled Sheet Vinyl	15% Chrysotile	Friable	50 s.f.
41-43	Exterior Window Panes, 3 Spots	White Window Putty	3% Chrysotile	Non-Friable	22 Total Windows
53	Large Chimney	Gray/Black Penetration Mastic	5% Chrysotile	Non-Friable	30 s.f.
54	Small Pipe East				
55	Small Pipe West				
62	Pool House Chimney	Black Penetration Mastic	4-5% Chrysotile	Non-Friable	30 s.f.
63	Pool House Chimney				
64	Pool House Pipe				
65	Pool House Roof	Transite Pipe	20% Chrysotile	Non-Friable	13 l.n.

Survey Sampling General Guidelines:

- ▶ AHERA Sampling Guidelines: 3/1000, 5/1000-5000, 7/>5,000ft² and 3 samples of Thermal System Insulation.
 - ▶ Representative Sampling of homogeneous suspect materials.
 - ▶ At a minimum all suspect materials per Rule 1206 must be sampled and analyzed for asbestos
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(d) Facility Survey Requirements

- **Examples of Un-Acceptable Substitutes for Sampling and Analyzing Suspect Materials for Asbestos:**
- Letter from building architect stating the building is asbestos free
- MSDS for a suspect material (Note: per EPA since asbestos is not a primary ingredient in most materials, it is not required to be specified in a MSDS).
- The general contractor shows you documentation that the building was constructed five years ago, is new and can't possibly contain asbestos.

(e) Notification Requirements

Types of Notifications:

Planned Renovation

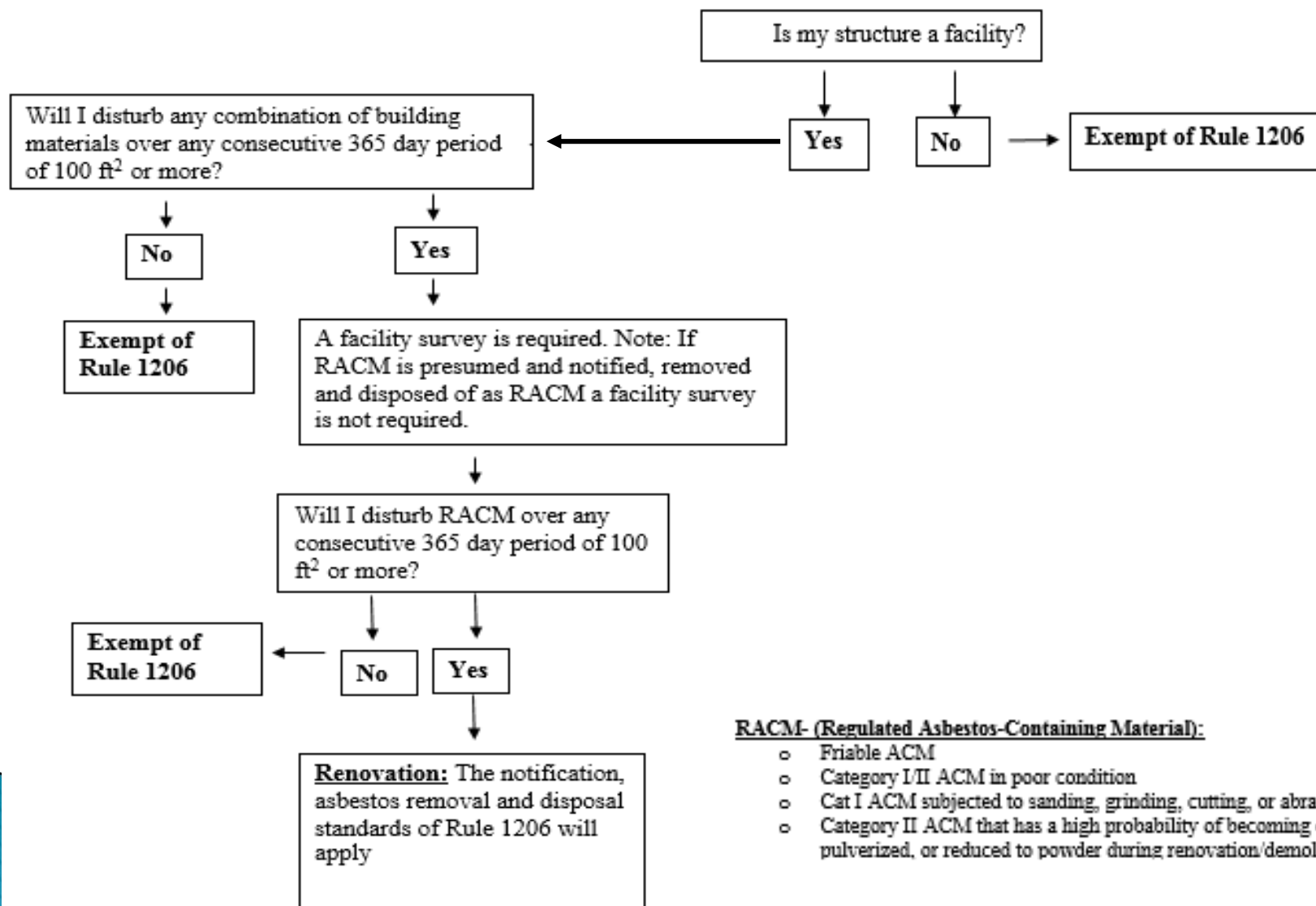
- Must be submitted by 12/17 of previous year
- Covers RACM removal for small jobs (e.g. small repairs, maintenance, etc.) during the calendar year.
- Does not cover individual RACM renovations of >100 square feet.

Emergency Renovation & Demolition Notification

- Must be submitted and approved by District prior to COB 1 working day after starting
- A copy of the of Emergency Demolition Order must be submitted with notification
- Emergency renovation notification must be accompanied by proof of emergency (photos/description).
- The definition of an emergency renovation clarified in Rule 1206.
- Emergency renovation only applies to emergency affected areas of RACM

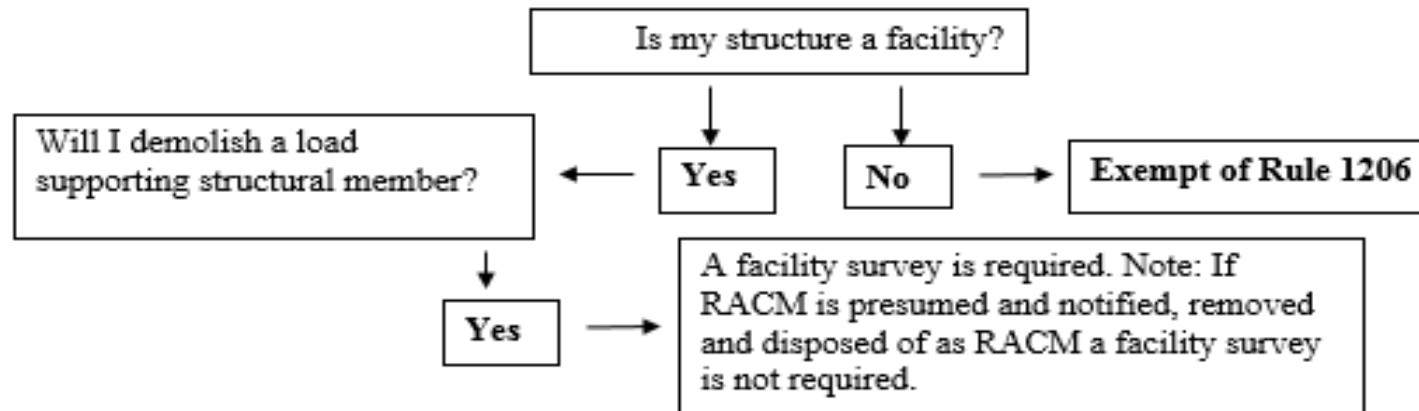
Is My Project Subject to Rule 1206?

Asbestos Removal, Renovation



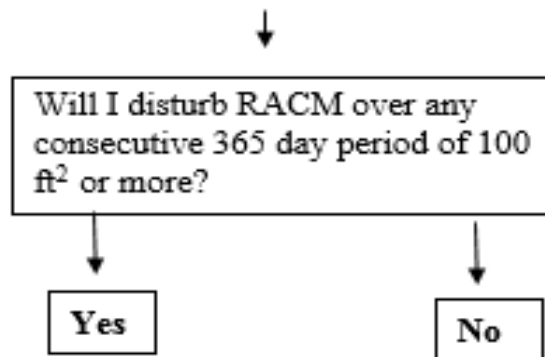
Is My Project Subject to Rule 1206?

Demolition



RACM- (Regulated Asbestos-Containing Material):

- Friable ACM
- Category I/II ACM in poor condition
- Cat I ACM subjected to sanding, grinding, cutting, or abrading
- Category II ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder during renovation/demolition.



Renovation and Demolition:
Notification required, asbestos removal and disposal standards of Rule 1206 will apply.
Asbestos removed prior to

Demolition: Notification is required regardless of the presence of asbestos however the demolition is not subject to the asbestos removal and disposal standards of Rule 1206



Public Exposure

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Next Steps

- ▶ Asbestos Updates will be submitted via the Asbestos Email List Server:
<https://service.govdelivery.com/accounts/CASAND/subscriber/new>.
- ▶ APCD Asbestos Information Page:
https://www.sdapcd.org/content/sdc/apcd/en/compliance-programs/asbestos_program.html.

District Contact

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