

RULE 902 ASBESTOS
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100 **GENERAL**

101 **PURPOSE:** To implement U.S. E.P.A.'s National Emission Standard for Hazardous Air Pollutants for Asbestos (40 C.F.R. §61.140 et.seq.) and to limit the emission of asbestos to the atmosphere.

102 **APPLICABILITY:** The provisions of this rule apply to owners or operators of demolitions or renovations; asbestos abatement contractors and asbestos consultants; any owner or operator of an operation in which asbestos-containing materials are spray applied; owners and operators of asbestos mills, active and inactive asbestos waste disposal sites, and asbestos waste conversion operations; manufacturers and fabricators of materials using commercial asbestos; owners and operators of facilities where insulating materials are being installed or reinstalled; and any persons who construct or maintain roadways using asbestos tailings or asbestos-containing waste materials.

110 **EXEMPTIONS:** This rule does not apply to:

110.1 Renovations or demolitions of residential facilities comprised of four or fewer dwelling units, except where the intended replacement use is:

- a. a commercial, or industrial facility, or
- b. eminent domain, and/or public works project, or
- c. intentional burning for the purpose of firefighting training, or
- d. a residential facility that includes five or more dwelling units.

110.2 Planned renovation operations where the combined amount of suspect material being disturbed at the facility is less than each of the following amounts listed in Table 1.

Table 1

Threshold quantities of suspect material	
On pipes	260 lineal feet
On other facility components	160 square feet
Off facility components where the length or area could not be measured previously	35 cubic feet

110.3 Emergency renovation operations where the combined amount of suspect material being disturbed at the facility is less than each of the amounts listed in Section 110.2, Table 1.

110.4 Nonscheduled renovation operations are exempt from this rule if the total amount of suspect material disturbed at the facility by nonscheduled renovation operations during a calendar year is less than each of the amounts listed in Section 110.2, Table 1.

111 **PARTIAL EXEMPTIONS:**

111.1 If a survey prepared pursuant to Section 401 of this rule establishes that the amount of RACM at a planned renovation will be less than the amounts specified in Table 2, the operation is exempt from all non-survey requirements of this rule.

Table 2

Threshold quantities of RACM	
On pipes	260 lineal feet
On other facility components	160 square feet
Off facility components where the length or area could not be measured previously	35 cubic feet

111.2 If a survey prepared pursuant to Section 401 of this rule establishes that the amount of RACM at an emergency renovation will be less than the amounts specified in Section 111.1, Table 2, the operation is exempt from all non-survey requirements of this rule.

- 111.3 If a survey prepared pursuant to Section 401 of this rule establishes that the amount of RACM from nonscheduled renovation operations in a calendar year is demonstrated to be less than each of the amounts in Section 111.1, Table 2, the operations are exempt from all non-survey requirements of this rule.
- 111.4 If a survey prepared pursuant to Section 401 of this rule establishes that the amount of RACM at a demolition will be less than the amounts specified in Section 111.1, Table 2, the operation is exempt from all provisions of the rule except Sections 401, 402, and 404.
- 111.5 A renovation or demolition operation is exempt from the survey requirement in Section 401 if the owner or operator of a demolition or renovation presumes that all suspect material is RACM and the renovation or demolition operation is notified pursuant to Sections 402, 403, and 404, as applicable, and all suspect material is removed and disposed of in accordance with Section 300.

200 **DEFINITIONS:** For the purpose of this rule only, the following definitions shall apply:

- 201 **ACTIVE WASTE DISPOSAL SITE:** Any disposal site other than an inactive site.
- 202 **ADEQUATELY WETTED:** Sufficiently mixed or penetrated with liquid to prevent the release of asbestos-containing material. The absence of dust, debris or particles is not sufficient evidence of being adequately wetted.
- 203 **ASBESTOS:** Actinolite, amosite, anthophyllite, chrysotile, crocidolite and tremolite.
- 204 **ASBESTOS ABATEMENT CONTRACTOR:** Any person engaged by the owner or operator of a demolition or renovation to disturb suspect material or RACM from a demolition or renovation or to supervise or direct such activities. If the asbestos abatement contractor also performs the duties of an asbestos consultant then that person shall be deemed to be an asbestos consultant during the performance of those duties.
- 205 **ASBESTOS CONSULTANT:** Any person engaged by the owner or operator of a renovation or demolition to provide professional health and safety services relating to suspect material or RACM, including but not limited to, surveys, building inspections, abatement project design, contract administration, supervision of site surveillance technicians, sample collections, preparation of asbestos management plans, and clearance air monitoring or to supervise or direct such activities. If the asbestos consultant also performs the duties of an asbestos abatement contractor then that person shall be deemed to be an asbestos abatement contractor during the performance of those duties.
- 206 **ASBESTOS-CONTAINING MATERIAL:** Asbestos or any material containing more than 1% asbestos, as determined by the method specified in Section 501.2.
- 207 **ASBESTOS-CONTAINING WASTE MATERIAL:**
- 207.1 Any waste which contains commercial asbestos and is generated by a source subject to the provisions of this rule, including filters and waste from control devices, asbestos mill tailings, friable asbestos waste material, and bags or containers that previously contained commercial asbestos.
- 207.2 Any waste from demolition or renovation including but not limited to: RACM, waste, disposable equipment, clothing, and rags; containment materials such as plastic sheeting and duct tape; and other materials contaminated with asbestos.
- 208 **ASBESTOS MILL:** Any facility engaged in the conversion or any intermediate step in the conversion of asbestos ore into commercial asbestos. Outside storage of asbestos materials is not considered a part of such facility.
- 209 **ASBESTOS TAILING:** Any solid waste product of asbestos mining or milling operation which contains asbestos.

- 210 **CATEGORY I NONFRIABLE ASBESTOS-CONTAINING MATERIAL:** Asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- 211 **CATEGORY II NONFRIABLE ASBESTOS-CONTAINING MATERIAL:** Asbestos-containing material, excluding Category I nonfriable asbestos-containing material, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- 212 **COMMERCIAL ASBESTOS:** Any variety of asbestos which is produced by extracting asbestos from asbestos ore.
- 213 **COMPLETION DATE:** The date when all disturbing of asbestos is finished and all asbestos-containing material and waste has been properly removed from the containment. For demolitions where the asbestos survey establishes that RACM is less than the thresholds in Table 2, the completion date is when all load-bearing structural members and facility components targeted for removal have been wrecked or taken out.
- 214 **CONTAINMENT:** The isolation of an asbestos removal area from the outside air by use of physical barriers including, but not limited to, plastic sheeting.
- 215 **CONTROL DEVICE ASBESTOS WASTE:** Any asbestos-containing waste material that is collected in a pollution control device.
- 216 **CONVERSION OPERATION:** A process by which asbestos material and/or asbestos-containing waste material is converted to nonasbestos (asbestos-free) material.
- 217 **DEBRIS:** The remains of something broken down, destroyed, or disturbed. For purposes of this rule debris includes any material that asbestos containing material has come in contact with including soil.
- 218 **DEMOLITION:** The wrecking, taking out, or intentional burning of any load-supporting structural member of any facility, together with any related handling operations. The removal or handling of material after an accidental fire is part of a demolition.
- 219 **DISTURB:** To take out, take off, cut, drill, dislodge, or similarly alter suspect material on or in any part of a facility or facility component.
- 220 **EMERGENCY DEMOLITION OR RENOVATION:** A demolition or renovation that results from a sudden, unexpected event, and that is limited to the abatement of the immediate hazard and, that if not immediately attended to either:
220.1 Presents a safety or public health hazard, or
220.2 Is necessary to protect equipment from damage, or
220.3 Is necessary to avoid imposing an unreasonable financial burden.
This term includes operations necessitated by non-routine failures of equipment.
- 221 **FABRICATING:** Any processing (e.g., cutting, sawing, drilling) of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites (field fabricating) for the construction or restoration of facilities. In the case of friction products, fabricating includes bonding, debonding, grinding, sawing, drilling, or other similar operations performed as part of fabricating.
- 222 **FACILITY:** Any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding strictly residential buildings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site. Any structure, installation or building that was previously subject to this rule is not excluded, regardless of its current use or function.
- 223 **FACILITY COMPONENT:** Any part of a facility including equipment.

- 224 **FRIABLE:** Refers to material that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure, or lacks fiber cohesion, illustrated by flaking, blistering, water damage, scrapes, gouges, or other physical damage. This includes previously nonfriable material after such previously nonfriable material changes to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.
- 225 **FUGITIVE SOURCE:** Any source of emissions not controlled by an air pollution control device.
- 226 **GLOVE BAG TECHNIQUE:** An asbestos removal method, primarily used to remove pipe insulation, in which a plastic bag fitted with gloves is sealed around the material to be removed, so that all removal occurs within the leak-tight, sealed bag.
- 227 **HEPA FILTER:** A high efficiency particulate air filter capable of filtering 0.3 micron particles with 99.97 percent efficiency.
- 228 **INACTIVE WASTE DISPOSAL SITE:** Any disposal site or portion thereof, where additional asbestos-containing waste material has not been deposited within the past year and where the surface is not disturbed by vehicular traffic.
- 229 **INSTALLATION:** Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the same or common ownership, operation, or control, or which are owned or operated by entities which are under common control.
- 230 **LEAK-TIGHT:** Any method of containerization that prevents solids, liquids, or particles from escaping or spilling out.
- 231 **MANUFACTURING:** The combining of commercial asbestos, or in the case of woven friction products, the combining of textiles containing commercial asbestos, with any other material(s), including commercial asbestos, and the processing of this combination into a product as specified in Section 304.
- 232 **MATERIAL:** Any physical substance that exists in a solid state at standard conditions, including, but not limited to:
- 232.1 Asbestos-containing material;
 - 232.2 Asbestos-containing waste material;
 - 232.3 Regulated asbestos-containing material (RACM);
 - 232.4 Particulate asbestos material;
 - 232.5 Dry wall, stucco, ceiling, roofing, and flooring materials;
 - 232.6 Wood, glass, clay, concrete, metal, plastic, and paper; and
 - 232.7 Mine tailings such as asbestos tailings.
- 233 **NON-POROUS MATERIAL OR DEBRIS:** Material or debris which does not have tiny openings, often microscopic, to allow the absorption or discharge of fluids.
- 234 **NONSCHEDULED RENOVATION OPERATIONS:** Renovations, including a number of individual renovations, necessitated by routine failures of facility components that are expected to occur within a given period of time based on past operating experience, but for which exact dates cannot be predicted.
- 235 **OPEN AIR ABATEMENT TECHNIQUE:** A method of abatement where a regulated area is used in lieu of containment. Examples where the open air abatement technique is used are roof abatements, soil abatements, removal of fire debris, and demolishing buildings that pose a safety hazard.
- 236 **OPERATOR OF A DEMOLITION OR RENOVATION:** Any person who manages, supervises, controls, or directs the operation of on-site activities at any facility or portion thereof being demolished or renovated, including, but not limited to, property managers, contractors, architects, or supervisors.

- 237 **ORDERED DEMOLITION:** The demolition of a facility pursuant to an order of an authorized representative of a state or local governmental agency, issued because that structure is structurally unsound and in danger of imminent collapse.
- 238 **OUTSIDE AIR:** The air outside buildings, structures, or containment.
- 239 **OWNER OF A DEMOLITION OR RENOVATION:** Any person who owns, rents, or leases a facility being demolished or renovated.
- 240 **PARTICULATE ASBESTOS MATERIAL:** Finely divided particles of asbestos or material containing asbestos.
- 241 **PLANNED RENOVATION OPERATION:** A renovation, or a number of related operations, in which the amount of RACM that will be disturbed within a given period of time can be predicted.
- 242 **REGULATED AREA:** A clearly demarcated work area that is designated by the abatement contractor and may contain asbestos.
- 243 **REGULATED ASBESTOS-CONTAINING MATERIAL (RACM):**
- 243.1 Friable asbestos-containing material; or,
 - 243.2 Category I nonfriable asbestos-containing material that has or will become friable, or subjected to sanding, drilling, grinding, cutting, or abrading; or
 - 243.3 Category II nonfriable asbestos-containing material that has a high probability of becoming crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation.
- 244 **RENOVATION:** Altering a facility or one or more facility components in any way, including the disturbing of RACM on or from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions, not renovations.
- 245 **RESILIENT FLOOR COVERING:** Asbestos-containing material comprised of floor tile, including asphalt or vinyl floor tile, or sheet vinyl floor covering.
- 246 **ROADWAYS:** Surfaces on which motor vehicles travel including, but not limited to, highways, roads, streets, parking areas, and driveways.
- 247 **SECURED:** Free from danger, loss or effects of the environment.
- 248 **SITE SURVEILLANCE TECHNICIAN:** Any person who acts as an independent on-site representative of an asbestos consultant performing activities including, but not limited to, monitoring the asbestos abatement activities of others, providing asbestos air monitoring services for area and personnel samples, performing building surveys or administering contracts under the supervision of an asbestos consultant.
- 249 **START DATE:** The date disturbance of any regulated asbestos-containing material commences.
- 250 **STRUCTURAL MEMBER:** Any load supporting member of a facility, such as beams and load-supporting walls; or any non-load-supporting member, such as ceilings and non-load-supporting walls.
- 251 **SUSPECT MATERIAL:**
- 251.1 Any material that:
 - a. is RACM, Category I or Category II nonfriable asbestos-containing material; or
 - b. has a propensity to contain asbestos because of past practices in its manufacture and use.

- 251.2 Suspect materials include, but are not limited to, roofing material; fireproofing; siding and siding shingles; walls and floors around furnaces; insulation; soundproofing or decorative material; textured paint; duct wrap; ceiling tiles; acoustical tiles; gypsum wallboard; various plasters—such as patching and joint compounds; resilient floor covering; linoleum backing and floor covering mastics; acoustic ceiling material; cement pipes and flues; and ceiling or wall texture material.
- 252 **VISIBLE EMISSIONS:** Any emissions or evidence of emissions, including but not limited to dust, debris, particles, or fibers, which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material, or from any asbestos milling, manufacturing, or fabricating operation. This includes, but is not limited to, asbestos debris found outside of the regulated area at a facility. This does not include condensed, uncombined water vapor.
- 253 **WASTE GENERATOR:** Any owner or operator of a source subject to this rule whose act or process produces asbestos-containing waste material.
- 254 **WASTE SHIPMENT RECORD:** The shipping document required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
- 255 **WORKING DAY:** Any day Monday through Friday, including holidays that fall on any of the days Monday through Friday.
- 256 **WRAP AND CUT/CHOP TECHNIQUE:** A method to remove a section of pipe (or similar facility component) encased in RACM.
- 257 **WRECKING:** The act of damaging and reducing to ruinous state.
- 300 **STANDARDS**
- 301 **RENOVATIONS AND DEMOLITIONS:**
- 301.1 **SURVEYS:**
- a. Unless otherwise exempt from the survey and notification requirements, prior to any work commencing or any disturbance of RACM, the owner or operator of a demolition or renovation shall conduct a survey in accordance with Section 401 and notify the Air Pollution Control Officer in accordance with Sections 402 or 403.
 - b. If an owner or operator of a demolition or renovation engages any asbestos consultant or asbestos abatement contractor to conduct a survey, then those parties are also responsible for compliance with Section 301.1(a).
- 301.2 **REMOVAL OF RACM PRIOR TO RENOVATION OR DEMOLITION:** The owner or operator of a demolition or renovation shall comply with the following requirements:
- a. RACM shall be removed from any facility subject to this rule before any activity occurs that would disturb the RACM or that would preclude access to such materials for subsequent removal.
 - b. Removal of RACM which is encased in concrete or other similarly hard materials is not required prior to demolition, but such material shall be adequately wetted whenever exposed during demolition.
 - c. If an owner or operator of a demolition or renovation engages any asbestos abatement contractor to remove RACM, then the asbestos abatement contractor is also responsible for compliance with Sections 301.2(a) and (b).
- 301.3 **WORK ENVIRONMENT:** The owner or operator of a demolition or renovation shall ensure that the following requirements are met for any area where RACM is being disturbed.
- a. **POSTING:** All entrances to rooms, areas, or buildings directly leading to the containment or regulated area in a demolition or renovation shall display signs with the following legend which is easily read by the public. The warning signs shall, at a minimum, conform to the requirements of 20" x 14"

upright format signs specified by this paragraph.

DANGER ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY

Alternatively, warning signs specified by the Occupational Safety and Health Administration may be used.

- b. **CONTAINMENT:** Have a containment to the extent feasible as determined by the Air Pollution Control Officer.
1. **VIEWING PORT:** To the extent feasible, include transparent viewing ports which allow observation, to the extent possible, of all disturbance of RACM from outside the containment area. The owner or operator of a demolition or renovation shall provide:
 - (a). Access to the viewing ports, and
 - (b). An unobstructed view of the containment interior at all times from the start date to the completion date.
 2. **PRESSURE DIFFERENTIAL:** Have a pressure differential of at least minus 0.02 inches of water, with respect to the area outside the containment area. The owner or operator of a demolition or renovation shall maintain this pressure differential from start date to completion date. This continual pressure differential shall be evidenced by a properly connected, operating, and calibrated pressure gauge.
 3. **EXHAUST VENTILATION:** Be equipped with a local exhaust ventilation and collection system that shall filter the air from the containment area with a HEPA filter or equivalent, prior to exhausting to the outside air.
- c. **ALTERNATIVES TO CONTAINMENT:** In lieu of meeting the requirements of Section 301.3(b), an owner or operator of a demolition or renovation may use any of the following techniques, provided that the requirements of that technique are met.
1. **GLOVE BAG TECHNIQUE:** If the owner or operator of a renovation or demolition uses the glove bag technique, the following requirements apply:
 - (a) Each glove bag may be used only once.
 - (b) The glove bag must allow for water use within the bag. Holes may be cut into the bag to accommodate a water apparatus, but the area around the holes must be sealed so that the glove bag is leak-tight during use.
 - (c) The tools to be used in the removal must be placed in the glove bag, and the bag must be sealed around the material to be removed.
 - (d) The material to be removed must be adequately wetted in accordance with Section 301.4.
 - (e) The surface from which the RACM was removed must be decontaminated to remove residual asbestos prior to removal of the glove bag.
 - (f) Tools used during the removal must be decontaminated to remove residual asbestos prior to removal from the glove bag.
 - (g) The glove bag must be resealed after tools are removed so that it is leak-tight.
 2. **WRAP AND CUT/CHOP TECHNIQUE:** If the owner or operator of a demolition or renovation uses the wrap and cut/chop technique, the following requirements apply:
 - (a) The glove bag technique must be used to remove RACM at each end of the section of the facility component to be removed in accordance with Section 301.3(c)(1) so that two

- small sections of the facility component are exposed.
 - (b) The ends of the remaining RACM shall be sealed with polyethylene or a similar material.
 - (c) The removed section of the facility component shall be wrapped in polyethylene or similar material and sealed so that it is leak tight.
 - (d) The facility component shall be cut at the exposed sections and removed.
 - 3. OPEN AIR ABATEMENT TECHNIQUE: For roof abatement, soil abatement, removal of fire debris, or demolitions of buildings that pose a safety hazard, open air abatement may be used. If the owner or operator of a demolition or renovation uses the open air abatement technique, the following requirements apply:
 - (a) Establish a regulated area in lieu of containment.
 - (b) Ensure all asbestos-containing waste material stays within the regulated area until it is treated or processed in accordance with Section 303.4.
 - 4. OTHER ALTERNATIVES: Any other alternatives to containment must be approved prior to use, in writing, by the Air Pollution Control Officer.
 - d. If an owner or operator of a demolition or renovation engages any asbestos abatement contractor to remove RACM, then the asbestos abatement contractor is also responsible for compliance with Sections 301.3(a) through (c).
- 301.4 **WETTING REQUIREMENTS:**
 - a. The owner or operator of a demolition or renovation shall ensure that RACM is adequately wetted during disturbance, except as provided below:
 - 1. FREEZING TEMPERATURES: The wetting requirements of this section are suspended when the temperature at the point of wetting is below 0 degrees C (32 degrees F). When RACM is not wetted due to freezing temperatures, such material on facility components shall, to the maximum extent possible, be removed as units or in sections prior to wrecking.
 - 2. During periods when wetting operations are suspended due to freezing temperatures, the owner or operator of a demolition or renovation must record the temperature in the work area at the beginning, middle and end of each workday and keep daily temperature records available for inspection by the Air Pollution Control Officer during normal business hours at the demolition or renovation site. The owner or operator of a demolition or renovation shall retain the temperature records for at least 2 years.
 - 3. EQUIPMENT DAMAGE: Upon request and supply of adequate information, the Air Pollution Control Officer will issue a written determination whether a requestor has proven whether damage to equipment resulting from wetting to comply with the provisions of this paragraph would be unavoidable. If equipment damage due to ACM wetting is unavoidable, then the written determination may suspend the wetting requirements.
 - b. If an owner or operator of a demolition or renovation engages any asbestos abatement contractor to remove RACM, then the asbestos abatement contractor is also responsible for compliance with Section 301.4(a).
- 301.5 **MAINTENANCE OF REMOVED RACM—WASTE HANDLING:** The owner or operator of a demolition or renovation shall ensure that all RACM that has been disturbed is:
 - a. Kept adequately wetted at all times, and
 - b. Transported to the ground via dust-tight chutes or leak-tight containers if RACM has been disturbed more than 50 feet above the ground or floor, except material removed as units or in sections, and
 - c. Stored in containers each of which is:

1. Transparent, and
2. Leak-tight, and
3. Labeled with both the name of the waste generator, the location at which the waste was generated, and the following statement:

DANGER
CONTAINS ASBESTOS
AVOID OPENING OR BREAKING CONTAINER
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

Alternatively, warning labels specified by the Occupational Safety and Health Administration may be used.

- d. Stored either:
 1. In a secured and locked area until collected for transport to a waste disposal site operated in accordance with the provisions of Section 311 of this rule, or
 2. In the case of a roofing project, stored on the roof.
 - e. If an owner or operator of a demolition or renovation engages any asbestos abatement contractor to remove RACM, then the asbestos abatement contractor is also responsible for compliance with Sections 301.5(a) through (d).
- 301.6 **ON-SITE REPRESENTATIVE:**
- a. The owner or operator of a demolition or renovation shall ensure that no RACM is disturbed unless at least one on-site representative, such as a foreman or management-level person or other authorized representative, has reviewed the provisions of this rule, as it pertains to demolition and renovation, and the means of compliance, and is present during all disturbance of RACM. The on-site representative must complete training which shall include, at a minimum, Asbestos Hazard Emergency Response Act (AHERA) contractor/supervisor certification that meets the provisions of 40 CFR, Part 763, Subpart E. The on-site representative's training certification documents shall be current, present at the project site and presented to the Air Pollution Control Officer upon request.
 - b. If an owner or operator of a demolition or renovation engages any asbestos abatement contractor or any asbestos consultant to remove RACM or to act as an on-site representative, then those parties are also responsible for compliance with Section 301.6(a).
- 301.7 **EMERGENCY DEMOLITION OR RENOVATION:**
- a. The Air Pollution Control Officer may approve an emergency demolition or renovation plan. The owner or operator of a demolition or renovation shall comply with the requirements of Section 402.1(c)(1)(c), and may not initiate work on an emergency demolition or renovation until an emergency authorization number is approved by the Air Pollution Control Officer.
 - b. If an owner or operator of a demolition or renovation engages any asbestos abatement contractor to remove RACM, then the asbestos abatement contractor is also responsible for compliance with Section 301.7(a).
- 302 **ADDITIONAL REQUIREMENTS FOR DEMOLITIONS:** The owner or operator of a demolition shall meet the following requirements:
- 302.1 **CEMENTITIOUS CATEGORY II NON-FRIABLE ASBESTOS CONTAINING MATERIALS:** All cementitious Category II nonfriable asbestos-containing materials must be removed prior to demolition.
- 302.2 **ORDERED DEMOLITIONS:**
- a. All ordered demolitions must comply with Section 402.
 - b. Ordered demolitions are not required to remove RACM or cementitious Category II nonfriable asbestos-containing materials prior to the demolition, however, all debris must be kept adequately wetted at all times.
 - c. After demolition, all debris must be surveyed for the presence of RACM

- d. If any debris resulting from an ordered demolition tests positive for RACM, then all the debris from the ordered demolition shall be treated as asbestos-containing waste material. Non-porous materials and non-porous debris that do not contain asbestos and have been decontaminated do not have to be treated as asbestos-containing waste material. All asbestos-containing waste material shall be disposed of in accordance with Section 303.

302.3 **INTENTIONAL BURNING:** If demolition is accomplished by intentional burning, all RACM, including Category I and Category II nonfriable asbestos-containing material, shall be removed in accordance with Sections 301 and 302, before burning.

302.4 **RACM DISCOVERED AFTER DEMOLITION BEGINS:** If RACM is discovered after demolition begins and cannot be safely removed, all of the asbestos-contaminated debris shall be treated as asbestos-containing waste material. If the discovered RACM is isolated then only the isolated RACM shall be treated as asbestos-containing waste material.

302.5 If an owner or operator of a demolition or renovation engages any asbestos abatement contractor to remove RACM, then the asbestos abatement contractor is also responsible for compliance with Sections 302.1 through 302.4.

303 **WASTE DISPOSAL FOR DEMOLITION, RENOVATION, MANUFACTURING, FABRICATING, AND SPRAYING OPERATIONS:** The owner or operator of a demolition or renovation subject to the requirements of Sections 301 or 302 and the owner or operator of any source subject to the provisions of Sections 304, 305, or 306 of this rule shall meet the following standards:

303.1 All asbestos-containing waste material shall be properly disposed of in compliance with this rule within 90 days of the date generated.

303.2 There shall be no visible emissions to the outside air, except as provided in Section 312 of this rule, during the collection, processing (including incineration), packaging, transportation, or disposition of any asbestos-containing waste material which is generated by such source;

303.3 All asbestos-containing waste material shall be deposited at waste disposal sites which are operated in accordance with the provisions of Section 311, and shall be labeled with the name of the waste generator and the location at which the waste was generated.

303.4 Any of the disposal methods specified under Subsections (a), (b), and (c) of this section or any alternative disposal method which has received prior written approval by the Air Pollution Control Officer may be used. To obtain approval to use an alternative disposal method, a written request shall be submitted to the Air Pollution Control Officer.

a. Treatment of asbestos-containing waste material with water:

1. Control device asbestos waste shall be thoroughly mixed with water into a slurry and other asbestos-containing waste material shall be adequately wetted, and,

2. After wetting, all asbestos-containing waste material shall be sealed into leak-tight containers while wet, and such containers shall be deposited at waste disposal sites which are operated in accordance with the provisions of Section 311. The containers shall be labeled with a warning label that states:

DANGER
CONTAINS ASBESTOS
AVOID OPENING OR BREAKING CONTAINER
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

Alternatively, warning labels specified by the Occupational Safety and Health Administration may be used. All waste shall be labeled with the name of the waste generator and the location at which the waste was generated.

b. All asbestos-containing waste material shall be formed into nonfriable pellets or other shapes.

- c. Conversion of RACM and asbestos-containing waste material into nonasbestos (asbestos-free) material:
1. Each owner or operator of a conversion operation shall comply with Sections 410 and 501.1 of this rule.
 2. The owner or operator must ensure that no visible emissions are discharged to the outside air from any part of the operation or use methods specified in Section 312 to remove particulate asbestos material before venting to the outside air.
- 303.5 For demolitions where the RACM is not removed prior to demolition, the asbestos-containing waste material shall be kept adequately wetted at all times after demolition and during handling and loading. The asbestos containing waste material shall be sealed in leak-tight containers for transport to a disposal site.
- 303.6 All containers and vehicles used to transport or store asbestos-containing waste material shall be marked during the loading, unloading, and storage of waste. The signs shall be visible and shall:
- a. Be displayed in such a manner that a person can easily read the legend;
 - b. Be 20 inch by 14 inch upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph;
 - c. Display the following legend in a style and size as specified below. Spacing between any two lines shall be at least equal to the height of the upper of the two lines. The signs shall state:

Legend	Notation
DANGER	1" Sans Serif, Gothic, or Block
ASBESTOS DUST HAZARD	1" Sans Serif, Gothic, or Block
CANCER AND LUNG DISEASE HAZARD	3/4" Sans Serif, Gothic, or Block
AUTHORIZED PERSONNEL ONLY	14 Point Gothic

- 303.7 All asbestos-containing waste material transported off the facility site, shall meet all of the following requirements:
- a. Maintain a waste shipment record, including the following information:
 1. The name, address, and telephone number of the waste generator;
 2. The name and address of the local Air Quality Management District in which the waste was generated;
 3. The approximate amount of waste in cubic yards;
 4. The name and telephone number of the disposal site operator;
 5. The name and physical location of the disposal site;
 6. The date transported;
 7. The name, address, and telephone number of the transporter(s);
 8. A certification that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway;
 - b. Ensure the waste transporter provides a copy of the waste shipment record referenced in Section 303.7(a) to the disposal site owner or operator at the same time the asbestos-containing waste material is delivered to the disposal site.
 - c. Contact the transporter and/or the owner or operator of the disposal site to determine the status of the waste shipment, if the waste shipment record referenced in Section 303.7(a), signed by the owner or operator of the designated disposal site, is not received by the waste generator within 35 days of the date the waste was accepted by the initial transporter.
 - d. Provide a written report to the Air Pollution Control Officer if a copy of the waste shipment record referenced in Section 303.7(a), signed by the owner

or operator of the disposal site, is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter. The following information shall be included:

1. A copy of the waste shipment record referenced in Section 303.7(a) for which a confirmation of delivery was not received; and
 2. A letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts;
- e. Retain a copy of all waste shipment records including a copy of the waste shipment record, referenced in Section 303.7(a), signed by the owner or operator of the designated waste disposal site, for at least 2 years and provide a copy to the Air Pollution Control Officer upon request.
- 303.8 If an owner or operator of a demolition or renovation subject to the requirements of Section 301 or 302 engages any asbestos abatement contractor to remove or dispose of RACM, then the asbestos abatement contractor is also responsible for compliance with Sections 303.1 through 303.7.

304 **MANUFACTURING:** No person shall discharge visible emissions to the outside air from operations manufacturing the following materials using commercial asbestos, or from any building or structure in which they are conducted or from any other fugitive sources. This provision shall not apply if air cleaning pursuant to Section 312 is used to clean emissions from these operations containing particulate asbestos material before they escape to, or vented to, the outside air.

- 304.1 Cloth, cord, wicks, tubing tape, twine, rope, thread, yarn, roving, lap or other textile materials.
- 304.2 Cement products.
- 304.3 Fireproofing and insulating materials.
- 304.4 Friction products.
- 304.5 Paper, millboard, and felt.
- 304.6 Floor tile.
- 304.7 Paints, coatings, caulks, adhesives and sealants.
- 304.8 Plastics and rubber materials.
- 304.9 Chlorine, utilizing asbestos diaphragm technology.
- 304.10 Shotgun shell wads.
- 304.11 Asphalt concrete.
- 304.12 Rocket motors, engines and components.

305 **FABRICATING:** No person shall discharge visible emissions to the outside air from operations fabricating the following materials using commercial asbestos, or from any building or structure in which they are conducted or from any other fugitive source. This provision shall not apply if air cleaning pursuant to Section 312 is used to clean emissions from these operations containing particulate asbestos material before they escape to, or are vented to, the outside air.

- 305.1 Cement building products.
- 305.2 Friction products, except those operations that primarily install asbestos friction materials on motor vehicles.
- 305.3 Cement or silicate board for ventilation hoods, ovens, electrical panels, laboratory furniture, bulkheads, partitions and ceilings for marine construction, and flow control devices for the molten metal industry.

306 **SPRAYING:**

- 306.1 Except as provided in Section 306.3 or 312, there shall be no visible emissions to the outside air from the spray-on application of asbestos-containing materials used to insulate or fireproof equipment and machinery.
- 306.2 Except as provided in Section 306.3, spray-on materials used to insulate or fireproof buildings, structures, pipes, and conduits may not contain 1 percent or more of asbestos as determined according to the method specified in Section 501.2.
- 306.3 The requirements of Sections 306.1 and 306.2 shall not apply to the spray-on application of materials where the asbestos fibers in the materials are encapsulated

with a bituminous or resinous binder during spraying and the materials are not friable after drying.

- 307 **INSULATING:** No owner or operator of a facility may install or reinstall on a facility component molded insulating materials that are friable and wet-applied insulating materials that are friable after drying that contain commercial asbestos. The provisions of this paragraph do not apply to insulating materials that are spray applied. Such materials are regulated under Section 306.
- 308 **ROADWAYS:** The surfacing of roadways with asbestos-containing waste material is prohibited except for temporary roadways on an area of asbestos ore deposits. The deposition of asbestos tailings on roadways covered with snow or ice is considered "surfacing".
- 309 **ASBESTOS MILLS:** No person shall discharge visible emissions to the outside air from any asbestos mill unless the asbestos mill complies with Section 312.
- 310 **WASTE DISPOSAL FOR ASBESTOS MILLS:** The owner or operator of any source covered under the provisions of Section 309 of this rule shall meet the following standards.
- 310.1 All asbestos-containing waste material shall be deposited at a waste disposal site operated in accordance with the provisions of Section 311.
- 310.2 There shall be no visible emissions discharged to the outside air from the transfer of control device asbestos waste to the tailings conveyor, unless air cleaning pursuant to Section 312 is used to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air. Such waste shall be subsequently processed either as specified in Section 310.4(a) or as specified in Section 303.4 of this rule.
- 310.3 There shall be no visible emissions discharged to the outside air, except as provided in Section 310.4 of this rule, during the collection, processing, packaging, or on-site transporting of any asbestos-containing waste material.
- 310.4 Rather than meet the requirements of Section 310.3 of this rule, an owner or operator may elect to use one of the disposal methods specified in Subsections (a) or (b):
- a. Use a wetting agent as follows:
 1. All asbestos-containing waste material shall be adequately mixed, with a wetting agent recommended by the manufacturer of the agent to effectively wet dust and tailings, before depositing the material at a waste disposal site. Such agent shall be used as recommended for the particular dust by the manufacturer of the agent.
 2. There shall be no discharge of visible emissions to the outside air from the wetting operation unless air cleaning pursuant to Section 312 is used to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.
 3. Wetting may be suspended when the ambient temperature at the waste disposal site is less than -9.5 °C (15 °F) as determined by an appropriate measurement method with an accuracy of plus, minus 1 °C (plus, minus 2 °F). During periods when wetting operations are suspended, the temperature must be recorded at least at hourly intervals, and records must be retained for at least 2 years in a form suitable for inspection.
 - b. Use an alternative emission control and waste treatment method that has received prior written approval of the Air Pollution Control Officer. To obtain approval for an alternative method, a written application shall be submitted to the Air Pollution Control Officer demonstrating that the following criteria are met:
 1. The alternative method will control asbestos emissions equivalent to currently required methods; and

2. The alternative method will not violate other applicable rules, regulations or laws; and
 3. The alternative method is suitable for the intended application; and
 4. The alternative method will not result in increased water pollution, land pollution, or occupational hazards.
- 310.5 When waste is transported by vehicle to a disposal site, all the requirements set forth in Section 303.6 shall be met.
- 310.6 For off-site disposal, all the requirements set forth in Section 303.7 shall be met.
- 311 **WASTE DISPOSAL SITES:** The owner of any inactive waste disposal site, which was operated by sources covered under Sections 303 or 310, and where asbestos-containing waste material produced by such sources was deposited, or an owner of an active waste disposal site which accepted waste from sources covered under Sections 301, 302, 304, 305, 306, or 309 shall meet the following standards. To obtain approval to use an alternative control method, a written request shall be submitted to the Air Pollution Control Officer.
- 311.1 There shall be no visible emissions to the outside air from any waste disposal site subject to this paragraph, except as provided in Section 311.5 or Section 311.6 of this rule;
- 311.2 Warning signs shall be displayed at all entrances, and along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited, at intervals of 330 feet or less, except as specified in Section 311.4 of this rule. Warning signs must meet the following requirements.
- a. Be posted in such a manner and location that a person may easily read the legend.
 - b. Conform to the requirements of 20" x 14" upright format signs specified by 29 CFR 1910.145(d)(4) and this paragraph.
 - c. Display the following legend in the lower panel, with letter sizes and styles of a visibility at least equal to those specified below.
 - d. Spacing between any two lines shall be at least equal to the height of the upper of the two lines.

Legend	Notation
ASBESTOS WASTE DISPOSAL SITE	1" Sans Serif, Gothic, or Block
DO NOT CREATE DUST	3/4" Sans Serif, Gothic, or Block
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH	14 Point Gothic

- 311.3 The perimeter of the site shall be fenced in a manner adequate to deter access by the general public, except as specified in Section 311.4 of this rule.
- 311.4 Warning signs and fencing are not required where the requirements of Sections 311.5(a) or 311.5(b) of this rule are met, or where a natural barrier adequately deters access by the general public. Upon request and supply of appropriate information, the Air Pollution Control Officer will determine whether a fence or a natural barrier adequately deters access to the general public.
- 311.5 Rather than meet the requirement of Section 311.1 an owner or operator of an inactive waste disposal site where asbestos-containing waste material has been deposited, may elect to meet the requirements of this paragraph, or may use an alternative control method for emissions from inactive waste disposal sites which has received prior written approval by the Air Pollution Control Officer.
- a. The asbestos-containing waste material shall be covered with at least six inches of compacted nonasbestos-containing material, and a cover of vegetation shall be grown and maintained on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least three inches of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or

- b. The asbestos-containing waste material shall be covered with at least two feet of compacted nonasbestos-containing material and maintained to prevent exposure of the asbestos-containing waste; or
- c. For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent which affectively binds dust to control surface air emissions may be used. The agent must be used in the manner and frequency recommended for the particular asbestos tailings by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior written approval by the Air Pollution Control Officer. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

311.6 Rather than meet the requirement of Section 311.1 of this rule, an owner or operator of an active waste disposal site may elect to meet the requirements of Sections 311.6(a) or 311.6(b) of this rule, or may use an alternative control method for emissions from active waste disposal sites which has received prior written approval by the Air Pollution Control Officer. At the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material which was deposited at the site during the operating day or previous 24-hour period shall be covered with:

- a. at least six inches of compacted nonasbestos-containing material; or
- b. a resinous or petroleum-based dust suppression agent which effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior written approval by the Air Pollution Control Officer. For purposes of this section, any used, spent, or other waste oil is not considered a dust suppression agent.

312 **EXCEPTIONS TO THE VISIBLE EMISSION REQUIREMENTS:**

312.1 Instead of meeting the visible emission requirement, the owner or operator of a demolition or renovation or of any other facility subject to the visible emission requirements of Sections 303, 304, 305, 306, 309, or 310 may elect to use air cleaning to clean emissions containing particulate asbestos material before such emissions escape to, or are vented to, the outside air. To obtain approval to use an alternative control method specified in Sections 312.1(b) and 312.1(d), a written request shall be submitted to the Air Pollution Control Officer. If air cleaning is elected, the following requirements shall apply:

- a. Fabric filter collection devices shall be used, except as noted in Subsections 312.1(b), 312.1(c), or 312.1(d).
 - 1. Such devices shall be operated at a pressure drop of no more than four inches water gage, as measured across the filter fabric.
 - 2. The airflow permeability, as determined by ASTM method D737-69 the test method referenced in Section 501.4, must not exceed $30\text{ft}^3/\text{min}/\text{ft}^2$ for woven fabrics or $35\text{ft}^3/\text{min}/\text{ft}^2$ for felted fabrics, except that $40\text{ft}^3/\text{min}/\text{ft}^2$ for woven and $45\text{ft}^3/\text{min}/\text{ft}^2$ for felted fabrics is allowed for filtering air from asbestos ore dryers.
 - 3. Each square yard of felted fabric must weigh at least 14 ounces and be at least one-sixteenth inch thick throughout.
 - 4. Synthetic fabrics must not contain fill yarn other than that which is spun.
- b. If the use of fabric filters creates a fire or explosion hazard, the Air Pollution Control Officer may issue a prior written approval to use wet collectors designed to operate with a unit contacting energy of at least 40 inches water gage pressure.
- c. A HEPA filtration system may be used in place of a fabric filter collection device. If a new HEPA filter is used, it shall be certified, by the manufacturer to be at least 99.97% efficient for 0.3 micron particles.

- d. The Air Pollution Control Officer may issue a prior written approval to use filtering equipment other than that described in Section 312.1, if the owner or operator of a demolition or renovation or of any other facility regulated by this rule demonstrates to the satisfaction of the Air Pollution Control Officer that the filtering of particulate asbestos material is equivalent to that of the described equipment.
 - e. All air-cleaning equipment authorized by this rule shall be properly installed, used, operated, and maintained. Bypass devices may be used only during upset or emergency conditions and then only for so long as it takes to shut down the operation generating the particulate asbestos material.
- 312.2 If an owner or operator of a demolition or renovation engages any asbestos abatement contractor to remove or dispose of RACM, then the asbestos abatement contractor is also responsible for compliance with Section 312.1.

313 **ASBESTOS CONSULTANT:** Any asbestos consultant who is engaged to provide guidance on any requirements of Sections 301, 302, 303, and 312, or to supervise or direct activities subject to the requirements of those sections, shall comply with the requirements of Sections 301, 302, 303, and 312.

314 **RESPONSIBLE PARTIES:** Where more than one party is responsible for compliance, compliance by one party satisfies the requirement for all parties.

400 ADMINISTRATIVE REQUIREMENTS

401 **RENOVATIONS AND DEMOLITIONS—SURVEYS:** The owner or operator of a demolition or renovation shall comply with the following procedures:

401.1 Except as provided in Section 401.2, prior to commencement of any demolition or renovation:

- a. The affected facility or portion thereof shall be thoroughly surveyed; and
- b. For spray or trowel applied surfacing materials such as fireproofing, acoustical ceiling texture, plaster, wall texture, and stucco, the affected facility or portion thereof shall be thoroughly surveyed. The surveyor must, at a minimum, collect the number of samples specified in Table 3 for each homogeneous material.

Table 3

Size of the sampling area in square feet	Minimum number of samples to be collected*
Less than 1,000	3
Between 1,000 and 5,000	5
Greater than 5,000	7

* More than 3, 5, or 7 samples may be necessary to adequately test for the presence of asbestos.

401.2 When a facility is demolished under an ordered demolition, the survey may be done after demolition but prior to handling, loading, or removal of any demolition debris.

- 401.3
- a. The survey shall be performed by a person who has taken an EPA approved Building Inspector course and the surveyor must comply with the procedures outlined in the course except when otherwise specified in this rule.
 - b. When an owner or operator of a demolition or renovation engages the services of a person to perform asbestos consulting or site surveillance activities, the owner or operator of a demolition or renovation may engage only a person who is certified by the Division of Occupational Safety and Health pursuant to regulations required by subdivision (b) of Section 9021.5 of the Labor Code. The survey may be performed by a certified Site Surveillance Technician (SST) under the supervision of a certified asbestos consultant.

- 401.4 A survey shall include all of the following:
- a. A visual inspection of a facility or a portion thereof for suspect materials, and
 - b. Sampling and laboratory analysis of any suspect materials found for the presence of asbestos. The laboratory analysis must use the test methods specified in Section 501.2.
 - c. A written report that includes:
 1. A description of the area(s) visually inspected, and
 2. A detailed description of any suspect material sampled, and
 3. The results of any laboratory analysis of suspect materials, and
 4. The method of analysis
 5. The total amount of: RACM, Category I Nonfriable Asbestos-Containing Materials, and Category II Nonfriable Asbestos-Containing Materials, and
 6. The name and signature of the person conducting the survey. If the survey is required to be done by a Cal-OSHA licensed consultant pursuant to Section 401.3, the consultant's Cal-OSHA certification number must also be included.
- 401.5 A copy of the survey report shall be provided upon request for review by the Air Pollution Control Officer.
- 401.6 If an owner or operator of a demolition or renovation engages any asbestos consultant to perform the survey, then the asbestos consultant is also responsible for compliance with Sections 401.1 through 401.5.

402 **REPORTING: RENOVATIONS AND DEMOLITIONS—INITIAL NOTIFICATION:**

- 402.1 Except as provided in Section 403, the owner or operator of a demolition or renovation shall meet the following requirements:
- a. Provide the Air Pollution Control Officer with a separate and individual written plan of intention to renovate or demolish for:
 1. Each separate containment; or
 2. Each area where a separate containment would be required but such containment will not be installed because installation is not feasible. This includes, but is not limited to, roofing projects; or
 3. Each building or structure where demolition activities will take place, even if the amount of RACM at the facility is less than the thresholds listed in Section 111.1, Table 2; or
 4. All facility components in which the glove bag or wrap and chop/cut technique is used; or
 5. Each building or structure to be demolished under order of a government agency; or
 6. All buildings or structures at a facility that are to be demolished and that contain no suspect materials or RACM as determined in Section 401.
 - b. Each such plan shall include the following information:
 1. Designation that the plan is either the original or a revision.
 2. The name, address, and telephone numbers of both the owner and the operator of the demolition or renovation.
 3. A description of the structure being demolished or renovated, including the size, number of floors, age of the oldest portion, and present and prior uses of the structure.
 4. An estimate of the amount of RACM to be removed from the structure or portion thereof, with regard to the:
 - (a) Length of pipe in linear feet, or
 - (b) Surface area in square feet, or
 - (c) Volume in cubic feet if the material is not attached to facility components.
 5. An estimate of the amount of Category I and Category II nonfriable asbestos-containing material that will not be removed before demolition.

6. The procedure used, including the analytical laboratory method employed to locate and identify the presence of RACM and Category I and Category II nonfriable asbestos-containing materials.
 7. The address and location (including building number or name and floor or room number, as applicable) of each structure where demolition or renovation will occur.
 8. A schedule showing the:
 - (a) Starting date of the demolition or renovation, and
 - (b) Completion date of demolition or renovation
 9. A description of the demolition or renovation and the method(s) to be employed, including demolition or renovation techniques to be used and a description of affected facility components.
 10. A description of the work practice and engineering controls to be used, including emission control procedures for asbestos removal and waste handling.
 11. The name, address, and location of the waste disposal site where the asbestos-containing waste material will be disposed of.
 12. If an ordered demolition, a copy of any applicable order to demolish, including the name, title, and authority of the state or local governmental representative who has ordered the demolition.
 13. Certification that at least one person, trained as required by Section 301.6, will supervise the disturbance of RACM described in this plan.
 14. A description of the procedures to be followed in the event that unexpected RACM is found or Category II nonfriable asbestos-containing material becomes friable.
 15. For emergency demolitions and renovations described in Section 220: the date and hour that the emergency occurred, a description of the sudden, unexpected event, the name of the person who determined the situation to be an emergency, and an explanation of how the event constitutes an unsafe condition, or would cause equipment damage.
 16. The name, address, and telephone number of the waste transporter.
- c. Deliver the original plan, with the appropriate plan fee, if any, to the Office of the Sacramento Metropolitan Air Quality Management District:
1. Via the U.S. Postal Service, a commercial delivery service, hand delivery, or by electronic media. The original plan shall be postmarked or delivered:
 - (a) At least ten working days prior to commencement of demolition or planned renovation; or
 - (b) As early as possible before, but no later than, the following working day if the operation is an ordered demolition; or
 - (c) Within 24 hours after the Air Pollution Control Officer, or his designated representative, has issued an emergency renovation or demolition authorization.
 - (d) As soon as possible after demolition begins due to burning, or
 - (e) For nonscheduled renovation operations, at least 10 working days before the calendar year for which notice is being given.
 2. In any other manner and form prescribed by the Air Pollution Control Officer.
- 402.2 Whenever a demolition or renovation, subject to Section 301, extends 30 days or more beyond the actual start date, the owner or operator of a demolition or renovation shall report in writing every 30 days, the following to the Air Pollution Control Officer:
- a. The amount of RACM removed as of the time of the report.

- b. The amount of RACM remaining to be removed as of the time of the report.
- 402.3 If an owner or operator of a demolition or renovation engages any asbestos abatement contractor or any asbestos consultant to prepare initial notifications pursuant to Sections 402.1 or 402.2, then those parties are also responsible for compliance with Sections 402.1 and 402.2.
- 403 **REPORTING - ANNUAL NOTIFICATIONS:** The owner or operator of a demolition or renovation, at any facility where nonscheduled renovation operations are expected to occur, may follow the annual notification requirements of this section in lieu of complying with the provisions of Section 402.
- 403.1 Estimate, based on past operating experience, the amount of RACM to be disturbed during the calendar year because of the routine failure of equipment.
- 403.2 Submit a plan form 10 working days prior to the calendar year for which the plan applies.
- 403.3 The plan may only cover the minimum amount of RACM removal necessary to correct the routine failure of equipment.
- 403.4 The amount of RACM provided for in the plan may be revised in accordance with Section 404.
- 403.5 If an owner or operator of a demolition or renovation engages any asbestos abatement contractor or any asbestos consultant to prepare annual notifications pursuant to Sections 403.1 through 403.4, then those parties are also responsible for compliance with Sections 403.1 through 403.4.
- 404 **REPORTING RENOVATIONS AND DEMOLITIONS—PLAN REVISIONS:**
- 404.1 Except for work done pursuant to an annual notification, no demolition or renovation shall begin or be completed on a date other than the date contained in the written plan, unless the owner or operator of a demolition or renovation notifies the Air Pollution Control Officer as follows:
- a. **EARLIER START DATE:** When a demolition or planned renovation involving the disturbing of RACM will begin earlier than the date contained in the most recent plan the owner or operator of a demolition or renovation shall provide written notice to the Air Pollution Control Officer of the new start date. The written notice must be delivered via the U.S. Postal Service, a commercial delivery service, hand delivery, or by electronic media to the Air Pollution Control Officer at least 10 working days before the new start date.
 - b. **LATER START DATE:** When a demolition or planned renovation involving the disturbance of RACM will begin after the date contained in the most recent plan, the owner or operator of a demolition or renovation shall notify the Air Pollution Control Officer of the new start date by written notice that is delivered via the U.S. Postal Service, a commercial delivery service, hand delivery, or by electronic media to the Air Pollution Control Officer as soon as possible before, and no later than, the original start date.
 - c. **COMPLETION DATE:** When a demolition or planned renovation involving the disturbance of RACM will be completed on a date different from that specified in the most recent plan, the owner or operator of a demolition or renovation shall notify the Air Pollution Control Officer of the new completion date by written notice via the U.S. Postal Service, a commercial delivery service, hand delivery, or by electronic media.
 1. If the completion date is being delayed, the notification must be delivered to the Air Pollution Control Officer on or prior to the date being changed; and
 2. If the revised completion date is earlier than the date being changed, the notification must be delivered to the Air Pollution Control Officer no later than one working day prior to the actual project completion date.
 3. The Air Pollution Control Officer may approve, in writing, a notification period shorter than one working day prior to the actual project completion date.

- 404.2 a. The owner and operator of a demolition or renovation shall notify the Air Pollution Control Officer, in writing, of any change in the scope of work, including any change in the amount of RACM to be disturbed prior to the occurrence of the change.
- b. For facilities operating under an annual notification, if the amount of RACM to be disturbed will exceed the amount of RACM contained in the annual notification, the annual notification shall be revised by the owner or operator of a demolition or renovation prior to any work commencing that will exceed the amount of RACM listed in the most recent notification on file.
- 404.3 If an owner or operator of a demolition or renovation engages any asbestos abatement contractor or any asbestos consultant to prepare plan revisions pursuant to Sections 404.1 or 404.2, then those parties are also responsible for compliance with Sections 404.1 and 404.2.
- 405 **REPORTING—EMISSION CONTROL EQUIPMENT:** The owner or operator of a demolition or renovation or of any other facility regulated by this rule shall also provide the Air Pollution Control Officer with the following information, as applicable:
- 405.1 A description of any emission control equipment used for each process.
- 405.2 The following emission control information regarding fabric filters:
- a. **FOR ALL FABRIC FILTERS:** The pressure drop across the fabric filter in inches water gage.
- b. **FOR FILTERS MADE OF WOVEN FABRIC:** The airflow permeability in $\text{ft}^3/\text{min}/\text{ft}^2$, and, if the fabric is synthetic, a statement confirming that the fill yarn is spun.
- c. **FOR FILTERS MADE OF FELTED FABRIC:** The density in oz/yd^2 , the minimum thickness in inches, and the air flow permeability in $\text{ft}^3/\text{min}/\text{ft}^2$.
- 405.3 If the owner or operator of a demolition or renovation engages with any asbestos abatement contractor or any asbestos consultant to report on emission control equipment pursuant to Section 405, then those parties are also responsible for compliance with Sections 405.1 and 405.2.
- 406 **REPORTING—WASTE DISPOSAL OPERATIONS:** For waste disposal operations subject to Sections 303 and 311, the owner or operator of that facility or an owner or operator of a demolition or renovation shall provide the following information, as applicable, to the Air Pollution Control Officer:
- 406.1 A brief description of each process that generates asbestos-containing waste material;
- 406.2 The average weight of asbestos-containing waste material disposed of, measured in kg/day;
- 406.3 The emission control methods used in all stages of waste disposal;
- 406.4 The type of disposal site or incineration site used for ultimate disposal;
- 406.5 The name of the site operator; and
- 406.6 The name and location of the disposal site.
- 406.7 If the owner or operator of a demolition or renovation engages with any asbestos abatement contractor or any asbestos consultant to report on waste disposal operations pursuant to Section 406, then the asbestos abatement contractor or the asbestos consultant is also responsible for compliance with Sections 406.1 through 406.6.
- 407 **REPORTING—INACTIVE WASTE DISPOSAL SITES:** For inactive waste disposal sites subject to Section 311:
- 407.1 A brief description of the site; and
- 407.2 The method or methods used to comply with the standard, or alternative procedures to be used.
- 408 **REPORTING—SPRAYING OPERATIONS:**
- 408.1 Except as provided in Section 408.2, any owner or operator who intends to spray asbestos-containing material for the purpose of insulating or fireproofing equipment and machinery as specified in Section 306 shall report such intention to the Air

Pollution Control Officer at least 20 days prior to the commencement of the spraying operation. Such report shall include the following information:

- a. Name of owner or operator
- b. Address of owner or operator
- c. Location of spraying operation
- d. Procedures to be followed to meet the requirements of Section 306.

408.2 The requirements of Section 408.1 shall not apply to the spray-on application of materials where the asbestos fibers in the materials are encapsulated with a bituminous or resinous binder during spraying and the materials are not friable after drying.

409 **REPORTING—ACTIVE WASTE DISPOSAL SITES:** The owner or operator of an active waste disposal site referenced in Section 311 shall notify the Air Pollution Control Officer in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date shall be provided to the Air Pollution Control Officer at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original plan. The notice shall include:

- 409.1 Scheduled starting and completion dates;
- 409.2 Reasons for disturbing the waste;
- 409.3 Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material;
- 409.4 Location of any temporary storage site and the final disposal site.

410 **APPROVAL PROCESS—CONVERSION OF RACM AND ASBESTOS-CONTAINING WASTE MATERIAL:** To obtain approval for a conversion operation pursuant to Section 303.4, the owner or operator shall provide the Air Pollution Control Officer with an application for Authority to Construct, pursuant to that specified in Regulation 2 of the District Rules and Regulations, and including the following:

- 410.1 Description of waste feed handling and temporary storage;
- 410.2 Description of process operating conditions;
- 410.3 Description of the handling and temporary storage of the end product;
- 410.4 Description of the protocol to be followed when analyzing output materials by TEM as described in Section 501.3;
- 410.5 A demonstration of the conversion process, upon request of the Air Pollution Control Officer; and
- 410.6 A protocol for the start-up performance test and a schedule by which the operating parameters shall be monitored pursuant to Section 501.1.
 - a. A report for each analysis of product composite samples performed during the initial 90 days of operation.
 - b. A quarterly report, including the following information concerning activities during each consecutive 3 month period:
 1. Results of analyses of monthly product composite samples;
 2. A description of any deviation from the operating parameters, its duration, and the corrective action;
 3. Disposition of any products produced during a period when the operating parameters were outside the range indicative of asbestos-free; and
 4. Information on waste disposal activities as required in Section 311.

500 **MONITORING AND RECORDS:**

501 **TESTING PROCEDURES**

501.1 **CONVERSION FACILITY:** To obtain approval for a conversion operation referenced in Section 303.4 of this rule, the owner or operator shall:

- a. Conduct a start-up performance test. The test shall include:
 1. A detailed description of the types and quantities of non-asbestos material, RACM, and asbestos-containing waste material

- processed, (e.g. asbestos cement products, friable asbestos insulation, plaster, wood, plastic, wire, etc.) Test feed is to include the full range of materials that will be encountered in actual operation of the process;
2. Results of analyses that document the asbestos content of the wastes processed, using the method specified in Section 501.2.;
 3. Results of the analyses, using the TEM method described in Section 501.3, that document that the output materials are free of asbestos. Samples for analysis are to be collected as 8-hour composite samples, beginning with the initial introduction of RACM or asbestos-containing waste material and continuing until the end of the performance test;
 4. A description of operating parameters, such as temperatures and residence time, defining the full range over which the process is expected to operate, and the limits for each operating parameter within which the process will produce nonasbestos (asbestos-free) materials; and
 5. The length of the test.
- b. During the initial 90 days of operation the owner or operator shall:
1. Monitor and log, according to a schedule approved by the Air Pollution Control Officer, the operating parameters identified during start-up performance tests;
 2. Verify that the input materials are as described during start-up performance tests;
 3. Collect and analyze samples, taken as 10-day composite samples (200 gram or 7 ounce sample collected every 8 hours of operation) of all output material for the presence of asbestos. The TEM method referenced in Section 501.3 shall be used to analyze the output material for the presence of asbestos;
 4. All output material shall be stored on-site until analysis shows the material to be asbestos-free or disposed of as asbestos-containing waste according to Section 303 of this rule.
- c. After the initial 90 days of operation:
1. Continuously monitor and record the operating parameters identified during start-up performance testing and any subsequent performance testing. Any output produced during a period of deviation from the range of established operating conditions shall be:
 - (a) Disposed of as asbestos-containing waste according to Section 303 of this rule; or
 - (b) Recycled as waste feed during a time when the process is operating within the established range of operating conditions; or
 - (c) Stored temporarily on-site in a leak-tight container until analyzed for asbestos content. After being tested, any material that is not asbestos-free shall either be disposed of as asbestos-containing waste material or recycled as waste feed to the process.
 2. Collect and analyze monthly composite samples as in Section 501.1(b)(3) of this rule.
- 501.2 **ASBESTOS CONTENT—POLARIZED LIGHT MICROSCOPY:** Asbestos content shall be determined using the method specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, Polarized Light Microscopy. If the asbestos content is less than 10 percent, verification shall be made using the point counting method specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1.7.2.4, Polarized Light Microscopy, Quantification of Asbestos Content.
- 501.3 **ASBESTOS CONTENT—TRANSMISSION ELECTRON MICROSCOPY (TEM):** When so indicated, asbestos content shall be determined using the procedures specified in Section 2.5 of Method for the Determination of Asbestos in Bulk Building

Materials, EPA/600/R-93/116, United States Environmental Protection Agency, July 1993, as amended from time to time.

501.4 **FABRIC FILTERS:** The airflow permeability of fabric filters shall be determined by ASTM method D737-69.

502 **RECORD KEEPING:** A person subject to this rule shall maintain all records required by this rule for two years and make the records available for review by the Air Pollution Control Officer upon request.

502.1 **FOR ASBESTOS MILLS OR MANUFACTURING OR FABRICATING OPERATIONS:** Each owner or operator meet the following requirements:

- a. Monitor each potential source of asbestos emissions from any part of the mill, manufacturing, or fabricating facility, including air cleaning devices, process equipment, and buildings that house equipment for material processing and handling, at least once each day, during daylight hours, for visible emissions to the outside air during periods of operation. The monitoring shall be visual observation of at least 15 seconds duration per source of emissions, utilizing the procedure specified in EPA Method 9. The certification requirements for Method 9 do not apply.
- b. Inspect each air cleaning device at least once each week for proper operation and maintenance, including, to the maximum extent possible without dismantling other than opening the device, the presence of tears, holes, and abrasions in filter bags and for dust deposits on the clean side of bags. For air cleaning devices that cannot be inspected weekly, submit a written maintenance plan to the Air Pollution Control Officer including but not limited to the following:
 1. Maintenance Schedule;
 2. Record keeping plan;
 3. Maintenance records of the results of visible emissions monitoring and air cleaning device inspections including the following:
 - (a) Date and time of each inspection;
 - (b) Presence or absence of visible emissions;
 - (c) Condition of fabric filters, including presence of tears, holes and abrasions;
 - (d) Presence of dust deposits on clean side of filter;
 - (e) Brief description of corrective actions taken, including date and time; and
 - (f) Daily hours of operation for each air cleaning device.
 4. On a quarterly basis, submit a copy of visible emissions monitoring records if visible emissions occurred during the reporting period. Quarterly reports shall be postmarked by the 30th day following the end of the calendar quarter.

502.2 **ACTIVE WASTE DISPOSAL SITES:** For all asbestos-containing waste material received, the owner or operator shall:

- a. Maintain waste shipment records, including the following information:
 1. The name, address and telephone number of the waste generator;
 2. The name, address and telephone number of the transporter(s);
 3. The quantity of the asbestos-containing waste material in cubic yards;
 4. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. If this condition exists, report in writing to the Air Pollution Control Officer, by the following working day. Submit a copy of the waste shipment record along with the report;
 5. The date of receipt.
- b. Send a copy of the signed waste shipment record to the waste generator, as soon as possible, and no longer than 30 days after the receipt of the waste;
- c. Upon discovering a discrepancy between the quantity of asbestos-containing waste material noted in the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the

waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the Air Pollution Control Officer. Describe the discrepancy and attempts to resolve it, and a copy of the waste shipment record.

- d. Maintain, until closure, records of the location, depth and area, and the quantity in cubic yards of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.
- e. Upon closure of the facility, submit a copy of records of asbestos waste disposal locations and quantities.

502.3 **CONVERSION OPERATIONS:** The owner or operator shall maintain the following records:

- a. Results of the start-up performance testing and all subsequent performance testing, including operating parameters, feed characteristics and analyses of output materials;
- b. Results of the composite analyses required in Section 501.1(b)(3) and 501.1(c)(2);
- c. Results of the continuous monitoring and logs of process operating parameters required in Sections 501.1(b)(1) and 501.1(c)(1);
- d. The waste shipment records including the information required in Section 502.2(a) for all asbestos-containing waste received;
- e. The name and location of the purchaser or disposal site and the date of sale or deposit for output materials.