

DEPARTMENT OF HEALTH

Adoption of Chapter 11-501  
Hawaii Administrative Rules

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SUMMARY

Chapter 11-501, Hawaii Administrative Rules,  
entitled "Asbestos Requirements," is adopted.

HAWAII ADMINISTRATIVE RULES

TITLE 11

DEPARTMENT OF HEALTH

CHAPTER 501

ASBESTOS REQUIREMENTS

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§11-501-1 Purpose. The purpose of this chapter is to define the minimum requirements for the processing, handling, and disposal of asbestos-containing material. It is also the purpose of this chapter to protect the general public by minimizing the release of asbestos fibers when facilities that contain asbestos-containing materials are demolished or renovated. [Eff \_\_\_\_\_] (Auth: HRS §342P-41) (Imp: 40 CFR Part 61 Subpart M)

§11-501-2 Definitions. As used in this chapter:  
"ACM" means asbestos-containing material.  
"Act" means the Clean Air Act (42 U.S.C. §7401 et seq.).

"Active waste disposal site" means any disposal site other than an inactive site.

"Adequately wet" means sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

"Asbestos" means the asbestiform varieties of: chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonite-grunerite); anthophyllite; and actinolite-tremolite.

"Asbestos-containing material" means material that contains any type of asbestos in an amount greater than one per cent by area, either alone or mixed with other fibrous or non-fibrous materials.

"Asbestos-containing waste materials" means mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this chapter. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and

materials contaminated with asbestos including disposable equipment and clothing.

"Asbestos waste from control devices" means any waste material that contains asbestos and is collected by a pollution control device.

"BID" means background information document.

"Category I nonfriable ACM" means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one per cent asbestos as determined using the method specified in 40 CFR part 763, subpart E, appendix E, section I, entitled "Polarized Light Microscopy," dated May 27, 1982.

"Category II nonfriable ACM" means any material, excluding category I nonfriable ACM, containing more than one per cent asbestos as determined using the methods specified in 40 CFR part 763, subpart E, appendix E, section I, entitled "Polarized Light Microscopy," dated May 27, 1982, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

"Commercial asbestos" means any material containing asbestos that is extracted from ore, and has value because of its asbestos content.

"Containment" means the isolation of an asbestos removal area from the outside air by use of physical barriers.

"Completion date" means the date on which containment is removed or, if an exception was given for the use of containment, the date on which all removal work has been completed.

"Cutting" means to penetrate with a sharp-edged instrument and includes sawing, but does not include shearing, slicing, or punching if the action does not render the material friable.

"Demolition" means the wrecking, taking out, or intentional burning of any load-supporting structural member of a facility together with any related handling operations.

"Department" means the department of health, State of Hawaii.

"Director" means the director of the department of health, State of Hawaii, or the director's duly authorized agent.

"Effective date" is ten days after filing the applicable chapter with the lieutenant governor's office.

"Emergency renovation operation" means a renovation operation that was not planned but results from a sudden unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by non-routine failures of equipment.

"Encapsulate" means to apply a material, such as latex paint, which penetrates the ACM and binds the fibers, rendering them nonfriable.

"EPA" means the United States Environmental Protection Agency.

"Fabricating" means 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.

"Facility" means 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 residences or residential cooperatives that have four or fewer total dwelling units); any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation, or building that was previously subject

to federal requirements pursuant to 40 CFR Part 61, Subpart M, is not excluded, regardless of its current use or function.

"Facility component" means any part of a facility, including equipment, boilers, pipes, furnaces, ducts, tanks, reactors, turbines, or structural members.

"Friable asbestos material" means any material containing more than one per cent asbestos as determined using the method specified in 40 CFR part 763, subpart E, appendix E, section I, entitled "Polarized Light Microscopy," dated May 27, 1982, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. These include sprayed-on or troweled-on fireproofing, acoustic ceiling material and ceiling tiles, linoleum backing, thermal system insulation, non-asphalt-saturated roofing felts, asbestos-containing paper, and joint compound. ACM that has been rendered to a crumbled, pulverized, or powdered state, when dry, by crushing, sanding, sawing, shot-blasting, or other demolition or renovation techniques is friable, which include category I non-friable asbestos containing material. ACM, in which the asbestos fibers are bound into a matrix, that has been rendered to a crumbled, pulverized, or powdered state, when dry, by crushing, sanding, sawing, shot-blasting, severe weathering, or other demolition or renovation techniques is friable, which include category II nonfriable ACM.

"Fugitive source" means any source of emissions not controlled by an air pollution control device.

"Glove bag" means a sealed compartment with attached inner gloves used for the handling of ACM. Properly installed and used, glove bags provide a small work area enclosure typically used for small-scale asbestos stripping operations.

"Grinding" means to reduce to powder or small fragments and includes drilling, cutting, chipping, or any activity that renders otherwise non-friable material friable.

"HEPA filter" mean high efficiency particulate air filter.

"Homogeneous area" means an area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color and texture, and which does not extend to other floors or buildings.

"In poor condition" means the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.

"Inactive waste disposal site" means any disposal site or portion of it where additional asbestos-containing waste material has not been deposited within the past year.

"Installation" means any building or structure or any group of buildings or structures at a single demolition or renovation site that is under the control of the same owner or operator (or owner or operator under common control).

"Leak-tight" means that solids or liquids cannot escape or spill out.

"Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of asbestos are increased. Failures of equipment shall not be considered malfunctions if they are caused in any way by poor maintenance, careless operation, or any other preventable upset conditions, equipment breakdown, or process failure.

"Manufacturing" means the combining of commercial asbestos - or, in the case of woven friction products, the combining of textiles containing commercial asbestos - with any other material, including commercial asbestos, and the processing of this combination into a product. Chlorine production is considered a part of manufacturing.

"Natural barrier" means a natural object that effectively precludes or deters access. Natural objects include physical obstacles such as cliffs, lakes, or other large bodies of water, deep and wide ravines, and mountains. Remoteness by itself is not a natural barrier.

"NESHAP" means the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61.

"Nonfriable asbestos-containing material" means any material containing more than one per cent asbestos as determined using the method specified in 40 CFR part 763, subpart E, appendix E, section I, entitled "Polarized Light Microscopy," dated May 27, 1982, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

"Nonscheduled renovation operation" means a renovation operation necessitated by the routine failure of equipment, which is expected to occur within a given period based on past operating experience, but for which an exact date cannot be predicted.

"Operator of a demolition or renovation activity" means any person who owns, leases, operates, controls, or supervises the demolition or renovation operation.

"OSHA" means the Occupational Safety and Health Administration of the U.S. Department of Labor.

"Outside air" means the air outside buildings and structures, including, but not limited to, the air under a bridge or in an open air ferry dock.

"Owner of a demolition or renovation activity" means any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated.

"Particulate asbestos material" means finely divided particles of asbestos or ACM.

"Planned renovation operation" means a renovation operation, or a number of renovation operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

"PLM" means polarize light microscopy.

"RACM" means regulated asbestos-containing material.

"Regulated asbestos-containing material" means:

(1) Friable asbestos material;



- (2) Category I nonfriable ACM that has become friable;
- (3) Category I nonfriable ACM that will be or has been subjected to sanding, drilling, grinding, cutting, abrading, or any other activity that may render the material friable; and
- (4) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this chapter.

"Remove" means to take out RACM or facility components that contain or are covered with RACM from any facility.

"Renovation" means altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

"Resilient floor covering" means asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than one per cent asbestos as determined using Polarized Light Microscopy according to the method specified in 40 CFR part 763, subpart E, appendix E, section I, entitled "Polarized Light Microscopy," dated May 27, 1982; but not including linoleum, sheet linoleum, or the backing of linoleum, which are considered friable for the purpose of this chapter.

"Roadways" means surfaces on which vehicles travel. This term includes public and private highways, roads, streets, parking areas, and driveways.

"Small-scale, short duration" means activities that involve removal of three square or linear feet or less of friable material, such as surfacing or thermal system insulation, or 0.5 cubic feet or less of friable debris, and are tasks such as, but not limited to:

- (1) Removal of asbestos-containing insulation on pipes.
- (2) Removal of asbestos-containing insulation on beams or above ceilings.
- (3) Replacement of an asbestos-containing gasket on a valve.
- (4) Installation or removal of drywall.
- (5) Installation of electrical conduits through or proximate to asbestos-containing materials.
- (6) Removal of ACM only if required in the performance of another maintenance activity not intended as asbestos abatement.
- (7) Removal of asbestos-containing thermal system insulation.
- (8) Minor repairs to damaged thermal system insulation which do not require removal.
- (9) Repairs to a piece of asbestos-containing wallboard.
- (10) Repairs, involving encapsulation, enclosure, or removal of friable ACM only if required in the performance of emergency or routine maintenance activity and not intended solely as asbestos abatement.

"Starting date" means the date on which actual asbestos disturbance, removal, or demolition begins.

"Startup" means the setting in operation of a stationary source for any purpose.

"Strip" means to take off RACM from any part of a facility or facility components.

"Structural member" means 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.

"Visible emission" means any emissions 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 asbestos debris found outside of containment at a job site. This does not include condensed, uncombined water vapor.

"Waste generator" means any owner or operator of a source regulated by this chapter whose act or process produces asbestos-containing waste material.

"Waste shipment record" means 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.

"Working day" means Monday through Friday and includes holidays that fall on any of the days Monday through Friday. [Eff \_\_\_\_\_ ] (Auth: HRS §342P-1) (Imp: 40 CFR Part 61.141)

§11-501-3 References. The following recommended references incorporate additional precautions against potential hazards and subsequent liabilities associated with asbestos exposure:

- (1) 40 CFR Part 763, Subpart E, Appendix D, Transport and Disposal of Asbestos Waste, October 30, 1987.
- (2) 40 CFR Part 763, Subpart E, Appendix E, Section I, Polarized Light Microscopy, May 27, 1982.
- (3) 40 CFR Part 61, Appendix A, Compliance Status Information, November 20, 1990. [Eff \_\_\_\_\_ ] (Auth: HRS §342P-41) (Imp: 40CFR Part 61)

§11-501-4 Standard for asbestos mills. (a) Each owner or operator of an asbestos mill shall discharge no visible emissions to the outside air from that asbestos mill, including fugitive sources, and shall use the methods specified by section 11-501-14 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.

(b) Each owner or operator of an asbestos mill shall meet the following requirements:

- (1) Monitor each potential source of asbestos emissions from any part of the mill

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 by visual observation of at least fifteen seconds duration per source of emissions;

- (2) Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for malfunction, 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 on a weekly basis according to this paragraph, submit to the director, and revise as necessary, a written maintenance plan to include, at a minimum, the following:

- (A) Maintenance schedule;
- (B) Work to be performed; and
- (C) Recordkeeping plan;

- (3) Maintain records of the results of visible emissions monitoring and air cleaning device inspections using a format similar to that shown in Figure 1, entitled "Record of Visible Emissions" and Figure 2, entitled "Air Cleaning Device Inspection Checklist", both dated June 1, 1998, located at the end of this chapter, and include the following:

- (A) Date and time of each inspection;
- (B) Presence or absence of visible emissions;
- (C) Condition of fabric filters, including tears, holes, and abrasions;

- (D) Presence of dust deposits on the clean side of fabric filters;
  - (E) A brief description of corrective actions taken, including date and time; and
  - (F) Daily hours of operation for each air cleaning device;
- (4) Furnish upon request, and make available at the affected facility during normal business hours for inspection by the department, all records required under this section;
  - (5) Retain a copy of all monitoring and inspection records for at least two years; and
  - (6) Submit quarterly a copy of visible emission monitoring records to the director if visible emissions occurred during the report period. Quarterly reports shall be postmarked by the thirtieth day following the end of the calendar quarter.  
[Eff \_\_\_\_\_ ] (Auth: HRS §342P)  
(Imp: 40 CFR Part 61.142)

§11-501-5 Standard for roadways. No person shall construct or maintain a roadway with asbestos tailings or asbestos-containing waste material on that roadway, except for asbestos tailings if encapsulated in asphalt concrete meeting the specifications contained in Section 401 of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-85, 1985, or their equivalent. [Eff \_\_\_\_\_ ]  
(Auth: HRS §342P-41) (Imp: 40 CFR Part 61.143)

§11-501-6 Standard for manufacturing. (a) This section applies to the following manufacturing operations using commercial asbestos for the manufacture of:

- (1) Cloth, cord, wicks, tubing, tape, twine, rope, thread, yarn, roving, lap, or other textile materials;
  - (2) Cement products;
  - (3) Fireproofing and insulating materials;
  - (4) Friction products;
  - (5) Paper, millboard, and felt;
  - (6) Floor tile;
  - (7) Paints, coatings, caulks, adhesives, and sealants;
  - (8) Plastics and rubber materials;
  - (9) Chlorine utilizing asbestos diaphragm technology;
  - (10) Shotgun shell wads; and
  - (11) Asphalt concrete.
- (b) Each owner or operator of any of the manufacturing operations to which this section applies shall:

- (1) Discharge no visible emissions to the outside air from these operations or from any building or structure in which they are conducted or from any other fugitive sources; or use the methods specified by section 11-501-14 to clean emissions from these operations containing particulate asbestos material before they escape or are vented to the outside air;
- (2) Monitor each potential source of asbestos emissions from any part of the manufacturing facility, including air cleaning devices, process equipment, and buildings housing material processing and handling equipment, at least once each day during daylight hours for visible emissions to the outside air during periods of operation. The monitoring shall be by visual observation of at least fifteen seconds duration per source of emissions;
- (3) Inspect each air cleaning device at least once each week for proper operation and for changes that signal the potential for

malfunctions, 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 on a weekly basis according to this paragraph, submit to the director, and revise as necessary, a written maintenance plan including:

- (A) A maintenance schedule;
  - (B) Work to be performed; and
  - (C) A recordkeeping plan;
- (4) Maintain records of the results of visible emission monitoring and air cleaning device inspections using a format similar to that shown in Figure 1, entitled "Record of Visible Emissions" and Figure 2, entitled "Air Cleaning Device Inspection Checklist", both dated June 1, 1998 and located at the end of this chapter, and include the following:
- (A) Date and time of each inspection;
  - (B) Presence or absence of visible emissions;
  - (C) Condition of fabric filters, including presence of any tears, holes, and abrasions;
  - (D) Presence of dust deposits on the clean side of fabric filters;
  - (E) Brief description of corrective actions taken, including date and time; and
  - (F) Daily hours of operation for each air cleaning device;
- (5) Furnish upon request, and make available at the affected facility during normal business hours for inspection by the director, all records required by this section;

- (6) Retain a copy of all monitoring and inspection records for at least two years; and
- (7) Submit quarterly a copy of the visible emission monitoring records to the director if visible emissions occurred during the report period. Quarterly reports shall be postmarked by the thirtieth day following the end of the calendar quarter.  
[Eff \_\_\_\_\_ ] (Auth: HRS § 342P-41)  
(Imp: 40 CFR Part 61.144)

§11-501-7 Standard for demolition and renovation.

(a) To determine which requirements of this section apply to the owner or operator of a demolition or renovation activity, and prior to the commencement of any demolition or renovation, thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including category I and category II nonfriable ACM. This survey shall be performed by a person who is certified pursuant to chapter 11-504. The inspector shall include sampling and laboratory analysis of the asbestos content of all suspected ACM, unless all suspect material is treated as asbestos-containing and will be handled in accordance with this chapter. Sampling shall include at least three samples from each homogeneous area to be disturbed. The requirements of subsections (b) and (c) apply to each owner or operator of a demolition or renovation activity, including the removal of RACM as follows:

- (1) In a facility being demolished, all the requirements of subsections (b) and (c) apply, except as provided in subsection (a)(3), if the combined amount of RACM is:
  - (A) At least eighty linear meters (or two hundred sixty linear feet) on pipes or at least fifteen square meters (or one hundred sixty square feet) on other facility components; or



- (B) At least one cubic meter (or thirty-five cubic feet) off facility components where the length or area could not be measured previously;
- (2) In a facility being demolished, only the notification requirements of subsections (b)(1), (b)(2), (b)(3)(A), (b)(3)(D), (b)(4)(A) through (b)(4)(H), (b)(4)(I), and (b)(4)(R) apply, if the combined amount of RACM is:
  - (A) Less than eighty linear meters (or two hundred sixty linear feet) on pipes and less than fifteen square meters (or one hundred sixty square feet) on other facility components; and
  - (B) Less than one cubic meter (or thirty-five cubic feet) off facility components where the length or area could not be measured previously or there is no asbestos;
- (3) If the facility is being demolished pursuant to an order of a state or local government agency, issued because the facility is structurally unsound and in danger of imminent collapse, only requirements of subsection (b)(1), (b)(2), (b)(3)(C), (b)(4) (except subsections (b)(4)(I)), (b)(5), and (c)(4) through (c)(9) apply; and
- (4) In a facility being renovated, including any individual nonscheduled renovation operation, all the requirements of subsections (b) and (c) apply if the combined amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed is:
  - (A) At least eighty linear meters (or two hundred sixty linear feet) on pipes or at least fifteen square meters (or one hundred sixty square feet) on other facility components; or

- (B) At least one cubic meter (or thirty-five cubic feet) of facility components where the length or area could not be measured previously.
- (C) To determine whether paragraph (a)(4) of this section applies to planned renovation operations involving individual nonscheduled operations, predict the combined additive amount of RACM to be removed or stripped during a calendar year of January 1 through December 31.
- (D) To determine whether paragraph (a)(4) of this section applies to emergency renovation operations, estimate the combined amount of RACM to be removed or stripped as a result of the sudden, unexpected event that necessitated the renovation.

(b) Each owner or operator of a demolition or renovation activity to which this section applies shall:

- (1) Provide the director with a separate written notice of intention to demolish or renovate for each building affected. Delivery of the notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable, but not by facsimile;
- (2) Update notice, as necessary, including when the amount of asbestos affected changes by at least twenty percent;
- (3) Postmark or deliver the notice as follows:
  - (A) At least ten working days before asbestos demolition, stripping, or removal work or any other activity begins (such as site preparation that would break up, dislodge, or similarly disturb asbestos material), if the operation is described in subsection

- (a)(1), (a)(2), and (a)(4) (except subsections (a)(4)(C) and (a)(4)(D));
- (B) At least ten working days before the end of the calendar year preceding the year for which notice is being given for renovations described in subsection (a)(4)(C);
- (C) As early as possible before, but not later than, the following working day if the operation is a demolition ordered according to subsection (a)(3) or, if the operation is a renovation described in subsection (a)(4)(D); or
- (D) For asbestos stripping or removal work in a demolition or renovation operation, described in subsection (a)(1) and (a)(4) (except subsections (a)(4)(C) and (a)(4)(D)), and for a demolition described in subsection (a)(2), that will begin or end on a date other than the one contained in the original notice, notice of the new start or completion date shall be provided to the director as follows:
- (i) When the asbestos stripping or removal operation or demolition operation covered by this paragraph will begin after the date contained in the notice, the director shall be notified of the new start date by telephone as soon as possible before the original start date, and a written notice of the new start date shall be delivered to the director or postmarked to the director no later than one working day after telephone notification. Delivery of the updated notice by the U.S. Postal Service, commercial delivery

- service, or hand delivery is acceptable, but not by facsimile;
- (ii) When the asbestos stripping or removal operation or demolition operation covered by this paragraph will begin on a date earlier than the original start date, provide the director with a written notice of the new start date at least ten working days before asbestos stripping, removal work, or demolition begins. Delivery of the updated notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable, but not by facsimile; and
  - (iii) In no event shall an operation covered by this paragraph begin on a date other than the date contained in the written notice of the new start date;
  - (iv) When the asbestos stripping or removal operation or demolition operations covered by this paragraph will end before or after the date contained in the notice, the director shall be notified of the new completion date by telephone as soon as possible before the original completion date, and a written notice of the new completion date shall be delivered to the director or postmarked to the director no later than one working day after telephone notification. Delivery of the updated notice by the U.S. Postal Service, commercial delivery

service, or hand delivery is acceptable, but not by facsimile.

- (4) Include the following in the notice:
- (A) An indication of whether the notice is the original or a revised notification;
  - (B) Name, address, and telephone number of both the facility owner and operator and the asbestos removal contractor owner or operator;
  - (C) Whether the type of operation is demolition or renovation;
  - (D) Whether asbestos is present or not present in the facility, the inspector's name and certification number, and the state from which certification was obtained;
  - (E) Description of the facility or affected part of the facility including the size (square meters or square feet, and number of floors), age, and present and prior use of the facility;
  - (F) Procedure, including analytical methods, employed to detect the presence of RACM and category I and category II nonfriable ACM, and the name of the laboratory that performed the analysis;
  - (G) Estimate of the approximate amount of RACM to be removed from the facility in terms of length of pipe in linear meters or linear feet, surface area in square meters or square feet on other facility components, or volume in cubic meters or cubic feet if off the facility components. Also, estimate the approximate amount of category I and category II nonfriable ACM in the affected part of the facility that will not be removed before demolition;

- (H) Location and street address (including building number or name and floor or room number, if appropriate), city, county, and state, of the facility being demolished or renovated;
- (I) Scheduled starting and completion dates, work days and work times of asbestos removal work (or any other activity, such as site preparation that would break up, dislodge, or similarly disturb asbestos material) in a demolition or renovation; planned renovation operations involving individual nonscheduled operations shall only include the beginning and ending dates of the report period as described in subsection (a)(4)(C);
- (J) Scheduled starting and completion dates, work days and work times of demolition or renovation;
- (K) Description of planned demolition or renovation work to be performed and methods to be employed, including demolition or renovation techniques to be used and description of affected facility components;
- (L) Description of work practices and engineering controls to be used to comply with the requirements of this chapter, including asbestos removal and waste-handling emission control procedures;
- (M) Project Designer's name and certification number, and the state from which certification was obtained;
- (N) Name and location of the waste disposal site where the asbestos-containing waste material will be deposited;
- (O) A certification that at least one person trained as required by

subsection (c)(8) will supervise the stripping and removal described by this notification. This requirement shall become effective one year after the effective date of this rule;

(P) For facilities described in subsection (a)(3), the name, title, and authority of the state or local government representative who has ordered the demolition, the date that the order was issued, and the date on which the demolition was ordered to begin. A copy of the order shall be attached to the notification;

(Q) For emergency renovations described in subsection (a)(4)(D), the date and hour that the emergency occurred, a description of the sudden, unexpected event, and an explanation of how the event caused an unsafe condition, or would cause equipment damage, or an unreasonable financial burden. Ultimate approval of emergency renovation is left to the discretion of the director;

(R) Description of procedures to be followed in the event that unexpected RACM is found or category II nonfriable ACM becomes crumbled, pulverized, or reduced to powder;

(S) Name, address, and telephone number of the waste transporter; and

(5) The information required in subsection (b)(4) shall be reported using a form similar to that shown in Figure 3 entitled "Asbestos Office Notification of Demolition and Renovation", dated June 1, 1998, located at the end of this chapter.

(c) Each owner or operator of a demolition or renovation activity to whom this subsection applies,

according to subsection (a), shall comply with the following procedures:

- (1) Remove all RACM from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. RACM need not be removed before demolition if:
  - (A) It is category I nonfriable ACM that is not in poor condition and is not friable;
  - (B) It is on a facility component that is encased in concrete or other similarly hard material and is adequately wet whenever exposed during demolition; It was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, the material cannot be safely removed. If not removed for safety reasons, the exposed RACM and any asbestos-contaminated debris shall be treated as asbestos-containing waste material and adequately wet at all times until disposed of; or
  - (C) It is category II nonfriable ACM and the probability is low that the materials will become crumbled, pulverized, or reduced to powder during demolition;
- (2) When a facility component that contains, is covered with, or is coated with RACM is being taken out of the facility as a unit or in sections:
  - (A) Adequately wet all RACM exposed during cutting or disjoining operations; and
  - (B) Carefully lower each unit or section to the floor and to ground level, not dropping, throwing, sliding, or



otherwise damaging or disturbing the RACM;

- (3) When RACM is stripped from a facility component while it remains in place in the facility, adequately wet the RACM during the stripping operation;
- (A) In renovation operations, wetting is not required if:
- (i) The owner or operator has obtained prior written approval from the director based on a written application that wetting to comply with this paragraph would unavoidably damage equipment or present a safety hazard; and
  - (ii) The owner or operator uses either a local exhaust ventilation and a collection system designed and operated to capture the particulate asbestos material produced by the stripping and removal of the asbestos materials which exhibits no visible emissions to the outside air or is designed and operated in accordance with the requirements in section 11-501-14; uses a glove-bag system designed and operated to contain the particulate asbestos material produced by the stripping of the asbestos materials; or uses leak-tight wrapping to contain all RACM prior to dismantlement;
- (B) In renovation operations where wetting would result in equipment damage or a safety hazard, and the methods allowed in subsection (c)(3)(A) cannot be used, another method may be used after obtaining written approval from the

director based upon a determination that it is equivalent to wetting in controlling emissions or to the methods allowed in subsection (c)(3)(A);

- (C) A copy of the director's written approval shall be kept at the worksite and made available for inspection;
- (4) After a facility component covered with, coated with, or containing RACM has been taken out of the facility as a unit or in sections pursuant to subsection (c)(2), it shall be stripped or contained in transparent, leak-tight wrapping except as described in subsection (c)(5). If stripped:
- (A) Adequately wet the RACM during stripping; and
  - (B) Use a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping. The system shall exhibit no visible emissions to the outside air and shall be designed and operated in accordance with the requirements in section 11-501-14;
- (5) For large facility components such as reactor vessels, large tanks, and steam generators, but not beams (which shall be handled in accordance with subsections (c)(2), (c)(3), and (c)(4)), the RACM is not required to be stripped if all of the following requirements are met:
- (A) The component is removed, transported, stored, disposed of, or reused without disturbing or damaging the RACM;
  - (B) The component is encased in a transparent, leak-tight wrapping; and
  - (C) The transparent, leak-tight wrapping is labeled during all loading and

unloading operations and during storage. The markings shall:

- (i) Be displayed in such a manner and location that a person can easily read the legend;
- (ii) Conform to the requirements for 51 cm. x 36 cm. (20 in. x 14 in.) upright format signs specified in Occupational Safety and Health Standards (29 CFR 1910.145(d)(4)) and this paragraph; and
- (iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph:

DANGER  
ASBESTOS DUST HAZARD  
CANCER AND LUNG DISEASE HAZARD  
Authorized Personnel Only

Notation:

2.5 cm (1 inch) sans serif, gothic or block  
2.5 cm (1 inch) sans serif, gothic or block  
1.9 cm (3/4 inch) sans serif, gothic or block  
14 point gothic

Spacing between any two lines shall be a least equal to the height of the upper of the two lines;

- (6) For all RACM, including material that has been removed or stripped:
  - (A) Adequately wet the material and ensure that it remains wet until collected and contained or treated in preparation for disposal in accordance with section 11-501-12;
  - (B) Carefully lower the material to the ground and floor, not dropping, throwing, sliding without chutes, or

otherwise damaging or disturbing the material;

- (C) Transport the material in transparent, leak-tight containers to the ground via leak-tight, enclosed chutes or containers if it has been removed or stripped more than fifty feet above ground level and was not removed as units or in sections;
- (D) RACM contained in transparent, leak-tight wrapping that has been removed in accordance with subsection (c)(3)(A) need not be wetted;
- (E) Isolate disturbances of RACM regulated by this subsection by physical barriers from the outside air. The physical barriers shall include transparent viewing ports which allow observation of all stripping and removal of RACM from outside the barrier. Whenever the outside air is in contact with the air in any portion of the isolated area, a local exhaust ventilation system which is designed and operated in accordance with the requirements of section 11-501-14 shall be used. This system shall maintain the air in the isolated area at a pressure differential of at least minus 0.02 inches of water with respect to the area outside the barrier and shall be operated continuously from the establishment of isolation barriers through final clean up of the work area following the disturbance of RACM. The provisions of this section shall not apply to a removal done entirely by the glove bag method, a removal using a mini-enclosure designed and operated according to Appendix G to 29 CFR

Section 1926.58, as it existed on July 15, 1993, or a removal using any other engineering control techniques approved by the director. If any of the requirements of this paragraph are not feasible, prior written approval shall be requested from the director, and a copy of this approval shall be kept on-site and made available for inspection;

- (F) Provide a clean work site and handle all friable asbestos-containing waste material related to a specific demolition, renovation, or removal, including preexisting asbestos-containing debris, in accordance with this section and section 11-501-12; and
  - (G) At all points of entry to a demolition or renovation, display signs with the legend specified in paragraph (5)(C)(iii);
- (7) When the temperature at the point of wetting is below 0° C (32° F):
- (A) The owner or operator need not comply with subsection (c)(2)(A) and the wetting provisions of subsection (c)(3);
  - (B) The owner or operator shall remove facility components containing, coated with, or covered with RACM as units or in sections to the maximum extent possible; and
  - (C) During periods when wetting operations are suspended due to freezing temperatures, the owner or operator shall record the temperature in the area containing the facility components at the beginning, middle, and end of each workday and keep daily temperature records available for

inspection by the director during normal business hours at the demolition or renovation site. The owner or operator shall retain the temperature records for at least two years;

- (8) No RACM shall be stripped, removed, or otherwise handled or disturbed at a facility unless at least one on-site, currently certified contractor/supervisor, trained in the provisions of these rules and the means of complying with them, is present. The required training shall include as a minimum:
- (A) Applicability;
  - (B) Notifications;
  - (C) Material identification;
  - (D) Control procedures for removals including, at least, wetting, local exhaust ventilation, negative pressure enclosures, glove-bag procedures, and HEPA filters;
  - (E) Waste disposal work practices;
  - (F) Reporting and recordkeeping; and
  - (G) Asbestos hazards and worker protection.

Evidence that the required training has been completed shall be posted and made available for inspection by the director at the demolition or renovation site;

- (9) For facilities described in subsection (a)(3), adequately wet the portion of the facility that contains RACM during the wrecking operation; and
- (10) If a facility is demolished by intentional burning, all RACM including category I and category II nonfriable ACM shall be removed in accordance with the NESHAP before burning. [Eff \_\_\_\_\_] (Auth: HRS §342P-41) (Imp: 40 CFR Part 61.145)

§11-501-8 Standard for spraying. The owner or operator of an operation in which asbestos-containing materials are spray applied shall comply with the following requirements:

- (1) For spray-on application on buildings, structures, pipes, and conduits, do not use material containing more than one per cent asbestos as determined using the method specified in 40 CFR part 763, subpart E, appendix E, section I, entitled "Polarized Light Microscopy," dated May 27, 1982, except as provided in paragraph (3);
- (2) For spray-on application of materials that contain more than one per cent asbestos as determined using the method specified in 40 CFR part 763, subpart F, appendix A, section I, entitled "Polarized Light Microscopy," dated May 27, 1982, on equipment and machinery, except as provided in paragraph (3):
  - (A) Notify the director at least twenty days before beginning the spraying operation. Include the following information in the notice:
    - (i) Name and address of owner or operator;
    - (ii) Location of spraying operation; and
    - (iii) Procedures to be followed to meet the requirements of this paragraph; and
  - (B) Discharge no visible emissions to the outside air from spray-on application of the asbestos-containing material and use the methods specified by section 11-501-14 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and

- (3) The requirements of paragraphs (1) and (2) do 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; and
- (4) Owners or operators of sources subject to this paragraph are exempt from the requirements of 40 CFR Part 61, Sections 61.05(a), 61.07, and 61.09.  
[Eff \_\_\_\_\_ ] (Auth: HRS § 342P-41)  
(Imp: 40 CFR Part 61.146)

§11-501-9 Standard for fabricating. (a) This section applies to the following fabricating operations using commercial asbestos for the fabrication of:

- (1) Cement building products;
- (2) Friction products, except those operations that primarily install asbestos friction materials on motor vehicles; and
- (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.

(b) Each owner or operator of any of the fabricating operations to which this section applies shall:

- (1) Discharge no visible emissions to the outside air from any of the operations or from any building or structure in which they are conducted or from any other fugitive sources; and use the methods specified by section 11-501-14 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air;



- (2) Monitor each potential source of asbestos emissions from any part of the 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 by visual observation of at least fifteen seconds duration per source of emissions;
- (3) Inspect each air-cleaning device at least once each week for proper operation and for changes that signal the potential for malfunctions, 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 on a weekly basis according to this paragraph, submit to the director, and revise as necessary, a written maintenance plan to include, at a minimum, the following:
  - (A) A maintenance schedule; and
  - (B) A recordkeeping plan;
- (4) Maintain records of the results of visible emission monitoring and air cleaning device inspections using a format similar to that shown in Figure 1, entitled "Record of Visible Emissions", and Figure 2, entitled "Air Cleaning Device Inspection Checklist", both dated June 1, 1998 and located at the end of this chapter, and include the following:
  - (A) The date and time of each inspection;
  - (B) The presence or absence of visible emissions;

- (C) The condition of fabric filters, including the presence of any tears, holes, and abrasions;
  - (D) The presence of dust deposits on the clean side of fabric filters;
  - (E) A brief description of corrective actions taken, including the date and time; and
  - (F) The daily hours of operation for each air-cleaning device;
- (5) Furnish upon request and make available at the affected facility during normal business hours for inspection by the director, all records required pursuant to this section;
  - (6) Retain a copy of all monitoring and inspection records for at least two years; and
  - (7) Submit quarterly a copy of the visible emission monitoring records to the director if visible emissions occurred during the report period. Quarterly reports shall be postmarked by the thirtieth day following the end of the calendar quarter.
- [Eff ] (Auth: HRS § 342P-41)  
(Imp: 40 CFR Part 61.147)

§11-501-10 Standard for insulating materials. No owner or operator of a facility may install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. The provisions of this section do not apply to spray-applied insulating materials regulated by section 11-501-8.

[Eff ] (Auth: HRS § 342P-41) (Imp: 40 CFR Part 61.148)

§11-501-11 Standard for waste disposal for asbestos mills. (a) Deposit all asbestos-containing material at a waste disposal site operated in accordance with the provisions of section 11-501-16.

(b) Discharge no visible emissions to the outside air from the transfer of control device asbestos waste to the tailings conveyor and use the methods specified by section 11-501-14 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air. Dispose of the asbestos waste from control devices in accordance with section 11-501-12 or subsection (c).

(c) Discharge no visible emissions to the outside air during the collection, processing, packaging, or on-site transportation of any asbestos-containing waste material and use one of the methods specified by paragraphs (1) or (2) as follows:

- (1)
  - (A) Discharge no visible emissions to the outside air from the wetting operation and use the methods specified by section 11-501-14 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and
  - (B) Wetting may be suspended when the ambient temperature at the waste disposal site is less than  $-9.5^{\circ}\text{C}$  ( $15^{\circ}\text{F}$ ), as determined by an appropriate measurement method with an accuracy of  $\pm 1^{\circ}\text{C}$  ( $\pm 2^{\circ}\text{F}$ ). 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 two years in a form suitable for inspection; or
- (2) Use an alternate emissions control and waste treatment method that has received prior written approval by the director. To obtain approval for an alternative method, a written application must be submitted to

the director demonstrating that the following criteria are met:

- (A) The alternative method will control asbestos emissions equivalent to currently required methods;
- (B) The suitability of the alternative method for the intended application;
- (C) The alternative method will not violate other regulations; and
- (D) The alternative method will not result in increased water pollution, land pollution, or occupational hazards.

(d) When the waste is transported by vehicle to a disposal site:

- (1) Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of the waste so that the signs are visible, in accordance with section 11-501-7(c)(5)(c)(i), (ii), and (iii); and
- (2) For off-site disposal, provide a copy of the waste shipment record, described in subsection (e)(1), to the disposal site owner or operator at the same time as the asbestos-containing waste material is delivered to the disposal site.

(e) For all asbestos-containing waste material transported off the facility site:

- (1) Maintain asbestos waste shipment records, using a form similar to that shown in Figure 4, entitled "Waste Shipment Record", dated June 1, 1998, located at the end of this chapter, and include the following information:
  - (A) The name, address, and telephone number of the waste generator; and
  - (B) The name and address of local, state, or EPA regional agencies responsible for administering the asbestos NESHAP program;

- (C) The quantity of the asbestos-containing waste material in cubic meters (or cubic yards);
  - (D) The name and telephone number of the disposal site operator;
  - (E) The name and physical site location of the disposal site;
  - (F) The date transported;
  - (G) The name, address, and telephone number of the transporter(s); and
  - (H) 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 according to the applicable international and government regulations;
- (2) For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated disposal site, is not received by the waste generator within thirty-five days of the date the waste was accepted by the initial transporter, contact the transporter, or the owner or operator of the designated disposal site, or both, to determine the status of the waste shipment;
- (3) Report in writing to the local, state, or EPA regional agency responsible for administering the asbestos NESHAP program for the waste generator if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received within forty-five days of the date the waste was accepted by the initial transporter. Include in the report the following information:

- (A) A copy of the waste shipment record for which a confirmation of delivery was not received; and
  - (B) A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts; and
- (4) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least two years.
- (f) Furnish upon request, and make available for inspection by the director, all records required under this section. [Eff \_\_\_\_\_] (Auth: HRS § 342P-41) (Imp: 40 CFR Part 61.149)

§11-501-12 Standard for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations. Each owner or operator of any source regulated by the provisions of sections 11-501-6, 11-501-7, 11-501-8, and 11-501-9 shall:

- (1) Discharge no visible emissions to the outside air during the collection, processing (including incineration), packaging, or transporting of any asbestos-containing waste material generated by the source, and use one of the emission control and waste treatment methods specified in subparagraphs (A) through (D):
  - (A) Adequately wet asbestos-containing waste material as follows:
    - (i) Mix control device asbestos waste to form a slurry; adequately wet other asbestos-containing waste material;
    - (ii) Discharge no visible emissions to the outside air from collection, mixing, wetting, and handling operations, and meet the

- containment requirements specified in section 11-501-7(c)(6)(E), using the methods specified by section 11-501-14 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air;
- (iii) After wetting, and while still adequately wet, promptly seal all asbestos-containing waste material in leak-tight containers; or, for materials that will not fit into containers without additional breaking, put materials into leak-tight wrapping. All plastic wrapping or containerizing material shall be transparent. Bagging of all loose asbestos material shall be performed at least twice during each work day, before main rest break and at completion of the work day. Bagging shall be done prior to the removal of the materials from containment as specified in section 11-501-7(c)(6)(E) and the containers shall remain leak-tight;
- (iv) Label the containers or wrapped materials specified in clause (iii) using warning labels specified by Occupational Safety and Health Standards of OSHA pursuant to 29 CFR 1910.1001(j)(2) or 1926.58 (k)(2)(iii). The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible; and

- (v) For asbestos-containing waste material removed from containment or to be transported off the facility site, label containers or wrapped materials with the name of the owner and operator and the location at which the waste was generated;
- (B) Process asbestos-containing waste material into nonfriable forms as follows:
  - (i) Form all asbestos-containing waste material into nonfriable pellets or other shapes; and
  - (ii) Discharge no visible emissions to the outside air from collection and processing operations, including incineration, and meet the containment requirements specified in section 11-501-7(c)(6)(E), using the method specified by section 11-501-14 to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air;
- (C) For facilities demolished where the RACM is not removed prior to demolition according to section 11-501-7(c)(1)(A) through (D) or for facilities demolished according to section 11-501-7(a)(3) adequately wet asbestos-containing waste material at all times after demolition and keep wet during handling and loading for transport to a disposal site;
- (D) Use an alternative emissions control and waste treatment method that has received prior approval by the director. To obtain approval for an alternative method, a written



application shall be submitted to the director demonstrating that the following criteria are met:

- (i) The alternative method will control asbestos emissions equivalent to currently required methods;
  - (ii) The suitability of the alternative method for the intended application;
  - (iii) The alternative method will not violate other rules; and
  - (iv) The alternative method will not result in increased water pollution, land pollution, or occupational hazards; and
- (E) As applied to demolition and renovation, the requirements of paragraph (1) do not apply to category I nonfriable ACM waste and category II nonfriable ACM waste that did not become crumbled, pulverized, or reduced to powder;
- (2) All asbestos-containing waste material shall be deposited as soon as is practical by the waste generator at a waste disposal site operated in accordance with the provisions of section 11-501-16, or an EPA-approved site that converts RACM and asbestos-containing waste material into non-asbestos (asbestos-free) material according to the provisions of section 11-501-17. The requirements of this paragraph do not apply to category I nonfriable ACM that is not RACM;
- (3) Mark vehicles used to transport asbestos-containing waste material during the loading and unloading of waste so that the signs are visible and in accordance with section 11-501-7(c)(5)(C)(i), (ii), and (iii);

- (4) For all asbestos-containing waste material transported off the facility site:
  - (A) Maintain waste shipment records, using a form similar to that shown in Figure 4, entitled "Waste Shipment Record", dated June 1, 1998, located at the end of this chapter, and include the following information:
    - (i) The name, address, and telephone number of the waste generator;
    - (ii) The name and address of the state office responsible for administering the asbestos NESHAP program;
    - (iii) The approximate quantity in cubic meters or cubic yards;
    - (iv) The name and telephone number of the disposal site operator;
    - (v) The name and physical site location of the disposal site;
    - (vi) The date transported;
    - (vii) The name, address, and telephone number of the transporter or transporters; and
    - (viii) 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 according to applicable international and government regulations;
  - (B) Provide a copy of the waste shipment record, described in subparagraph (A), to the disposal site owners or operators at the same time as the asbestos-containing waste material is delivered to the disposal site;

- (C) For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated disposal site, is not received by the waste generator within thirty-five days of the date the waste was accepted by the initial transporter, contact the transporter, owner, or operator of the designated disposal site to determine the status of the waste shipment;
  - (D) Report in writing to the local, state, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the waste generator within forty-five days of the date the waste was accepted by the initial transporter. Include in the report the following information:
    - (i) A copy of the waste shipment record for which a confirmation of delivery was not received; and
    - (ii) A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts; and
  - (E) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least two years; and
- (5) Furnish upon request, and make available for inspection by the director, all records required by this section.

[Eff ] (Auth: HRS §342P-41)  
(Imp: 40 CFR Part 61.150)

§11-501-13 Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations. Each owner or operator of any inactive waste disposal site that was operated by sources regulated pursuant to section 11-501-4, 11-501-6, or 11-501-9 and received deposits of asbestos-containing waste material generated by the sources shall:

- (1) Comply with one of the following:
  - (A) Discharge no visible emissions to the outside air from an inactive waste disposal site subject to this section;
  - (B) Cover the asbestos-containing waste material with at least fifteen centimeters (six inches) of compacted non-asbestos-containing material, and grow and maintain a cover of vegetation 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 eight additional centimeters (three inches) of well-graded, non-asbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or
  - (C) Cover the asbestos-containing waste material with at least sixty centimeters (two feet) of compacted non-asbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste;
- (2) Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as

follows, or comply with paragraph (1)(B) or (C):

- (A) Display warning signs at all entrances and at intervals of one hundred meters (328 feet) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs shall:
  - (i) Be posted in a manner and location that a person can easily read the legend;
  - (ii) Conform to the requirements for 51 centimeters X 36 centimeters (20 inches X 14 inches) upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
  - (iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph:

Asbestos Waste Disposal Site  
Do Not Create Dust  
Breathing Asbestos is Hazardous to Your Health

Notation:

2.5 cm (1 inch) sans serif, gothic or block  
2.5 cm (1 inch) sans serif, gothic or block  
1.9 cm (3/4 inch) sans serif, gothic or block  
14 point gothic

Spacing between any two lines shall be at least equal to the height of the upper of the two lines;

- (B) Fence the perimeter of the site in a manner adequate to deter access by the general public; and
  - (C) When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the director to determine whether a fence or a natural barrier adequately deters access by the general public;
- (3) The owner or operator may use an alternative control method that has received prior approval of the director rather than comply with the requirements of paragraph (1) or (2);
- (4) Notify the director in writing at least forty-five days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site pursuant to this section, and follow the procedures specified in the notification. 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 director at least ten working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:
- (A) Scheduled starting and completion dates;
  - (B) Reason for disturbing the waste;
  - (C) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed

- necessary, the director may require changes in the emission control procedures to be used; and
- (D) Location of any temporary storage site and the final disposal site; and
- (5) Within sixty days of a site becoming inactive and after the effective date of this chapter, record, in accordance with state law, a notation on the deed to the facility property and on any other instrument that would normally be examined during a title search; this notation will in perpetuity notify any potential purchaser of the property that:
- (A) The land has been used for the disposal of asbestos-containing waste material;
- (B) The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in section 11-501-16(6) have been filed with the director; and
- (C) The site is subject to this chapter.  
[Eff ] (Auth: HRS  
§342P-41) (Imp: 40 CFR Part 61.151)

§11-501-14 Air-cleaning. (a) Any owner or operator who uses air cleaning, as specified in sections 11-501-4(a), 11-501-6(b)(1), 11-501-7(c)(3)(A)(ii), 11-501-7(c)(4)(B), 11-501-7(c)(6)(E), 11-501-8(2)(B), 11-501-11(c)(1)(A), 11-501-12(1)(A)(ii), 11-501-12(1)(B)(ii), and 11-501-17(5) shall:

- (1) Use fabric filter collection devices, except as noted in subsection (b), doing all of the following:
- (A) Ensuring that the airflow permeability, as determined by ASTM Method D737-75, does not exceed  $9 \text{ m}^3/\text{min}/\text{m}^2$  ( $30 \text{ ft}^3/\text{min}/\text{ft}^2$ ) for woven

fabrics or  $11 \text{ m}^3/\text{min}/\text{m}^2$  ( $35 \text{ ft}^3/\text{min}/\text{ft}^2$ )  
for felted fabrics;

- (B) Ensuring that felted fabric weighs at least 475 grams per square meter (fourteen ounces per square yard) and is at least 1.6 millimeters (one-sixteenth inch) thick throughout; and
- (C) Avoiding the use of synthetic fabrics that contain fill yarn other than that which is spun;

- (2) Properly install, use, operate, and maintain all air-cleaning equipment authorized by this section. 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;
- (3) For fabric filter collection devices installed after January 10, 1989, provide for easy inspection for faulty bags; and
- (4) Maintain on-site one operable, backup negative air device at all times during the abatement.

(b) The following are exceptions to section

(a)(1):

- (1) If the use of fabric creates a fire or explosion hazard, or the director determines that a fabric filter is not feasible, the director may authorize as a substitute the use of wet collectors designed to operate with a unit contacting energy of at least 9.95 kilopascals (forty inches water gage pressure);
- (2) Use a HEPA filter that is certified to be at least 99.97 per cent efficient for 0.3 micron particles; or
- (3) The director may authorize the use of filtering equipment other than described in section (a)(1) and paragraphs (1) and (2) if the owner or operator demonstrates to the director's satisfaction that it is



equivalent to the described equipment in filtering particulate asbestos material. [Eff ] (Auth: HRS §342P-41) (Imp: 40 CFR Part 61.152)

§11-501-15 Reporting. (a) Any new source to which this chapter applies, with the exception of sources subject to sections 11-501-5, 11-501-7, 11-501-8, and 11-501-10, which has an initial startup date preceding the effective date of this chapter, shall provide the following information to the director, postmarked or delivered, within ninety days of the effective date. In the case of a new source that does not have an initial startup date preceding the effective date, the information shall be provided to the director, postmarked or delivered, within ninety days of the initial startup date. Any owner or operator of an existing source shall provide the following information to the director within ninety days of the effective date of this chapter unless the owner or operator of the existing source has previously provided this information to the director. Any changes in the information provided by any existing source shall be provided to the director, postmarked or delivered, within thirty days after the change. The information shall include:

- (1) A description of the emission control equipment used for each process:
  - (A) If the fabric device uses a woven fabric, the airflow permeability in  $\text{m}^3/\text{min}/\text{m}^2$  and, if the fabric is synthetic, whether the fill yarn is spun or not spun; and
  - (B) If the fabric filter device uses a felted fabric, the density in  $\text{g}/\text{m}^2$ , the minimum thickness in inches, and the airflow permeability in  $\text{m}^3/\text{min}/\text{m}^2$ ;
- (2) If a fabric filter device is used to control emissions:

- (A) The airflow permeability in  $\text{m}^3/\text{min}/\text{m}^2$  ( $\text{ft}^3/\text{min}/\text{ft}^2$ ) if the fabric filter device uses a woven fabric, and, if the fabric is synthetic, whether the fill yarn is spun or not spun; and
- (B) If the fabric filter device uses a felted fabric, the density in  $\text{g}/\text{m}^2$  ( $\text{oz}/\text{yd}^2$ ), the minimum thickness in millimeters (inches), and the airflow permeability in  $\text{m}^3/\text{min}/\text{m}^2$  ( $\text{ft}^3/\text{min}/\text{ft}^2$ );
- (3) If a HEPA filter is used to control emissions, the certified efficiency;
- (4) For sources subject to sections 11-501-11 and 11-501-12:
  - (A) A brief description of each process that generates asbestos-containing waste material;
  - (B) The average volume of asbestos-containing waste material disposed of, measured in  $\text{m}^3/\text{day}$  ( $\text{yd}^3/\text{day}$ );
  - (C) The emission control methods used in all stages of waste disposal; and
  - (D) The type of disposal site or incineration site used for ultimate disposal, the name of the site operator, and the name and location of the disposal site; and
- (5) For sources subject to sections 11-501-13 and 11-501-16:
  - (A) A brief description of the site; and
  - (B) The method or methods used to comply with the standard, or alternative procedures to be used.

(b) The information described in this section shall be reported using the format of Appendix A of 40 CFR Part 61, entitled "National Emission Standards for Hazardous Air Pollutants Compliance Status Information", dated November 20, 1990. §11-501-16 shall also comply with this provision.

[Eff ] (Auth: HRS §342P-41) (Imp: 40 CFR Part 61.153)

§11-501-16 Standard for active waste disposal sites. Each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source regulated pursuant to section 11-501-11, 11-501-12 or 11-501-17 shall meet the requirements of this section:

- (1) There shall be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited; or the requirements of paragraph (3) or (4) shall be met;
- (2) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing shall be installed and maintained as follows, or the requirements of paragraph (3)(A) shall be met.
  - (A) Warning signs shall be displayed at all entrances and at intervals of one hundred meters (three hundred and thirty feet) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs shall:
    - (i) Be posted in a manner and location that a person can easily read the legend;
    - (ii) Conform to the requirements of 51 cm X 36 cm (20" X 14 ") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
    - (iii) Display the following legend in the lower panel with letter sizes

and styles of a visibility at least equal to those specified in this paragraph:

Asbestos Waste Disposal Site  
Do Not Create Dust  
Breathing Asbestos is Hazardous to Your Health

Notation:

2.5 cm (1 inch) sans serif, gothic or block  
2.5 cm (1 inch) sans serif, gothic or block  
1.9 cm (3/4 inch) sans serif, gothic or block  
14 point gothic

Spacing between any two lines shall be at least equal to the height of the upper of the two lines;

- (B) The perimeter of the disposal site shall be fenced in a manner adequate to deter access by the general public; and
  - (C) Upon request and supply of appropriate information, the director shall determine whether a fence or a natural barrier adequately deters access by the general public;
- (3) Rather than meet the no visible emission requirement of paragraph (1), at the end of each operating day, or at least once in every twenty-four-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous twenty-four hour period shall:
- (A) Be covered with at least fifteen centimeters (six inches) of compacted non-asbestos-containing material; or
  - (B) Be covered with a resinous or petroleum-based dust suppression agent

that effectively binds dust and controls wind erosion. The 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 approval by the director. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent;

- (4) Rather than meet the no visible emission requirement of paragraph (1), use an alternative emissions control method that has received prior written approval by the director by submitting a written application to the director demonstrating that the following criteria are met:
  - (A) The alternative method will control asbestos emissions equivalent to currently required methods;
  - (B) The suitability of the alternative method for the intended application;
  - (C) The alternative method will not violate other regulations; and
  - (D) The alternative method will not result in increased water pollution, land pollution, or occupational hazards;
- (5) For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall:
  - (A) Maintain waste shipment records, using a form similar to that shown in Figure 4 entitled "Waste Shipment Record", dated June 1, 1998, located at the end of this chapter, and include the following:
    - (i) The name, address, and telephone number of the waste generator;

- (ii) The name, address, and telephone number of the transporter or transporters;
  - (iii) The quantity of the asbestos-containing waste material in cubic meters or cubic yards;
  - (iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the department by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report; and
  - (v) The date of the receipt;
- (B) As soon as possible and no longer than thirty days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator;
- (C) Upon discovering a discrepancy between the quantity of waste designated on 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 fifteen days after receiving the waste, immediately report in writing to the department, describing the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report; and
- (D) Retain a copy of all records and reports required by this paragraph for at least two years;

- (6) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area;
- (7) Upon closure, comply with all the provisions of section 11-501-13;
- (8) Submit to the director, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities;
- (9) Furnish upon request, and make available during normal business hours for inspection by the director, all records required pursuant to this section; and
- (10) Notify the director in writing at least forty-five 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 director at least ten working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:
  - (A) The scheduled starting and completion dates;
  - (B) The reason for disturbing the waste;
  - (C) The procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the director may require changes in the emission control procedures to be used; and

- (D) The location of any temporary storage site and the final disposal site.  
[Eff ] (Auth: HRS §342P-41) (Imp: 40 CFR Part 61.154)

§11-501-17 Standard for operations that convert asbestos-containing waste material into non-asbestos (asbestos-free) material. Each owner or operator of an operation that converts RACM and asbestos-containing waste material into non-asbestos (asbestos-free) material shall:

- (1) Obtain the prior written approval of the director to construct the facility. To obtain approval, the owner or operator shall provide the director with the following information:
  - (A) An application to construct;
  - (B) The application shall include the following:
    - (i) A description of waste feed handling and temporary storage;
    - (ii) A description of process operating conditions;
    - (iii) A description of the handling and temporary storage of the end product; and
    - (iv) A description of the protocol to be followed when analyzing output materials by transmission electron microscopy;
  - (C) Performance test protocol, including provisions for obtaining information required pursuant to paragraph (2); and
  - (D) The director may require that a demonstration of the process be performed prior to approval of the application to construct.
- (2) Conduct a start-up performance test. Test results shall include:



- (A) 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, and similar materials. Test feed is to include the full range of materials that will be encountered in actual operation of the process;
  - (B) Results of analyses, using polarized light microscopy, that document the asbestos content of the wastes processed;
  - (C) Results of analyses, using transmission electron microscopy, that document that the output materials are free of asbestos. Samples for analysis are to be collected as eight-hour composite samples (one 200-gram or seven-ounce sample per hour), beginning with the initial introduction of RACM or asbestos-containing waste material and continuing until the end of the performance test;
  - (D) A description of operating parameters, such as temperature and residence time, defining the full range over which the process is expected to operate to produce non-asbestos (asbestos-free) materials. Specify the limits for each operating parameter within which the process will produce non-asbestos (asbestos-free) materials; and
  - (E) The length of the test;
- (3) During the initial ninety days of operation:

- (A) Continuously monitor and log the operating parameters identified during start-up performance tests that are intended to ensure the production of non-asbestos (asbestos-free) output material;
  - (B) Monitor input materials to ensure that they are consistent with the test feed materials described during start-up performance tests in paragraph (2)(A); and
  - (C) Collect and analyze samples, taken as ten-day composite samples (one 200-gram or seven-ounce sample collected every eight hours of operation) of all output material for the presence of asbestos. Composite samples may be for fewer than ten days. A Transmission Electron Microscope (TEM) shall be used to analyze the output material for the presence of asbestos. During the initial ninety-day period, all output materials shall be stored on-site until analysis shows the material to be asbestos-free or disposed of as asbestos-containing waste material according to section 11-501-12;
- (4) After the initial ninety days of operation:
- (A) 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 operating conditions established to ensure the production of non-asbestos (asbestos-free) output materials shall be:
    - (i) Disposed of as asbestos-containing waste material according to section 11-501-12;

- (ii) Recycled as waste feed during process operation within the established range of operating conditions; or
    - (iii) Stored temporarily on-site in a leak-tight container until analyzed for asbestos content. Any product material that is not asbestos-free shall be either disposed of as asbestos-containing waste material or recycled as waste feed to the process; and
  - (B) Collect and analyze monthly composite samples (one 200-gram or seven-ounce sample collected every eight hours of operation) of the output material. Transmission electron microscopy (TEM) shall be used to analyze the output material for the presence of asbestos;
- (5) Discharge no visible emissions to the outside air from any part of the operation, and use the methods specified by section 11-501-14 to clean emissions containing particulate asbestos material before they escape to, or are vented to the outside air;
- (6) Maintain records on-site and include the following:
- (A) Results of start-up performance testing and all subsequent performance testing, including operating parameters, feed characteristic, and analyses of output materials;
  - (B) Results of the composite analyses required during the initial ninety days of operation pursuant to paragraph (3);
  - (C) Results of the monthly composite analyses required pursuant to paragraph (4);

- (D) Results of continuous monitoring and logs of process operating parameters required pursuant to paragraphs (3) and (4);
  - (E) The information on waste shipments received as required pursuant to section 11-501-16(5);
  - (F) For output materials where no analyses were performed to determine the presence of asbestos, record the name and location of the purchaser or disposal site to which the output materials were sold or deposited, and the date of sale or disposal; and
  - (G) Retain records required by this paragraph for at least two years;
- (7) Submit the following reports to the director:
- (A) A report for each analysis of product composite samples performed during the initial ninety days of operation;
  - (B) A quarterly report, including the following information concerning activities during each consecutive three-month period:
    - (i) Results of analyses of monthly product composite samples;
    - (ii) A description of any deviation from the operating parameters established during performance testing, the duration of the deviation, and steps taken to correct the deviation;
    - (iii) Disposition of any product produced during a period of deviation, including whether it was recycled, disposed of as asbestos-containing waste material, or stored temporarily on-site until analyzed for asbestos content; and

- (iv) The information on waste disposal activities as required in section 11-501-16(6); and
- (8) Non-asbestos (asbestos-free) output material is not subject to any of the provisions of this chapter. Output materials in which asbestos is detected, or output materials produced when the operating parameters deviated from those established during the start-up performance testing, unless shown by TEM analysis to be asbestos-free, shall be considered to be asbestos-containing waste and shall be handled and disposed of according to sections 11-501-12 and 11-501-16 or reprocessed while all of the established operating parameters are being met.  
 [Eff ] (Auth: HRS §342P-41)  
 (Imp: 40 CFR Part 61.155)

§11-501-18 Cross-reference to other asbestos regulations. In addition to this chapter, the regulations referenced in the following Table 1 also apply to asbestos and may be applicable to those sources specified in sections 11-501-4 through 11-501-13, 11-501-16, and 11-501-17. These cross-references are presented for the reader's information and to promote compliance with the cited regulations.

Table 1. Cross Reference to Other Asbestos Regulations

Agency	CFR citation	Comment
EPA	40 CFR part 763, subpart E	Requires schools to inspect for asbestos and implement response actions and submit asbestos management plans to States. Specifies use of certified inspectors, air sampling methods, and waste disposal procedures.
	40 CFR part 427	Effluent standards for asbestos manufacturing source categories.

	40 CFR part 763, subpart G	Protects public employees performing asbestos abatement work in States not covered by OSHA asbestos standard
OSHA	29 CFR 1910.1001	Worker protection measures - engineering controls, worker training, labeling, respiratory protection, bagging of waste, 0.1 f/cc permissible exposure level.
	29 CFR 1926.1101	Worker protection measures for all construction work involving asbestos, including demolition and renovation - work practices, worker training, bagging of waste, 0.1 f/cc permissible exposure level.
MSHA	30 CFR part 56, subpart D	Specifies exposure limits, engineering controls, and respiratory protection measures for workers in surface mines.
	30 CFR part 57	Specifies exposure limits, engineering controls, and respiratory protection measure for workers in underground mines.
DOT	49 CFR parts 171 and 172	Regulates the transportation of asbestos-containing waste material. Requires waste containment and shipping papers.

[Eff ] (Auth: HRS §342P-41) (Imp: 40 CFR Part 61.156)



DEPARTMENT OF HEALTH

Chapter 11-501, Hawaii Administrative Rules, on the Summary Page dated \_\_\_\_\_, was adopted on \_\_\_\_\_, following public hearings held on June 1, 1999 in Honolulu, Hawaii, June 2, 1999 in Lihue, Hawaii, June 3, 1999 in Wailuku, Hawaii, June 7, 1999 in Kailua-Kona, Hawaii, and June 8, 1999 in Hilo, Hawaii, after public notice was given in the Hawaii State & County Public Notices on May 3, 1999.

The adoption of Chapter 11-501 shall take effect ten days after filing with the Office of the Lieutenant Governor.

\_\_\_\_\_  
Bruce S. Anderson, Ph.D., M.P.H.  
Director of Health

APPROVED:

\_\_\_\_\_  
Benjamin J. Cayetano  
Governor  
State of Hawaii

Date: \_\_\_\_\_

\_\_\_\_\_  
Filed

APPROVED AS TO FORM:

\_\_\_\_\_  
Deputy Attorney General





Figure 2. Air Cleaning Device Inspection Checklist  
June 1, 1998

1. Air cleaning device designation or number	_____		
2. Date of inspection (mm/dd/yy)	_____		
3. Time of inspection (a.m./p.m.)	_____		
4. Air cleaning device operating properly (y/n)	_____		
5. Tears, holes or abrasions in fabric filter (y/n)	_____		
6. Dust on clean side of fabric filters (y/n)	_____		
7. Other signs of malfunctions or potential malfunctions (y/n)	_____		
8. Describe other malfunctions or signs of potential malfunctions	_____		
_____	_____		
9. Describe corrective action(s) taken	_____		
_____	_____		
10. Date and time corrective action taken	_____		
11. Inspected by:			
_____	_____	_____	_____
Print/type name	Title	Signature	Date
_____	_____	_____	_____
Print/type name	Title	Signature	Date

Figure 3. Page 1 of 3  
Asbestos Notification of Demolition and Renovation  
June 1, 1998

<b>Postmark:</b>	<b>Received:</b>	<b>Notification #:</b>
<b>I. Type of notification:</b> O=original R=revised C=cancelled		
<b>II. Type of operation:</b> D=Demolition R=Renovation OD=Ordered Demolition ER=Emergency Renovation		
<b>III. Facility information</b>		
Owner name:		
Address:		
City:	State:	Zipcode:
Contact person:		Telephone #:
Removal contractor:		License #:
Address:		
City:	State:	Zipcode:
Contact person:		Telephone #:
Other operator:		
Address:		
City:	State:	Zipcode:
Contact person:		Telephone #:
<b>IV. Is asbestos present (y/n):</b>		
Inspector's name:	Certification #:	State of certification:
<b>V. Facility description (Include building number, floor and room number)</b>		
Building name:		
Address:		
City:	State:	Zipcode:
Site location:		
Building size (sq. ft.):	# Floors:	Age:
Present use:	Prior use:	
<b>VI. Procedure used to detect the presence of asbestos</b>		
Laboratory name:		Analytical method

Figure 3. Page 2 of 3  
 Asbestos Notification of Demolition and Renovation  
 June 1, 1998

<b>VII. Specify the nature of the asbestos material (TSI, surfacing, VAT, miscellaneous):</b>			
Amount of asbestos, including:	RACM to be removed	Nonfriable ACM not to be removed	
1. RACM to be removed 2. CAT I left in place, and 3. CAT II left in place		Category I	Category II
Pipes (linear ft.)			
Surfacing (square ft.)			
Facility components (cu. ft.)			
<b>VIII. Scheduled asbestos abatement dates</b>			
Start (mm/dd/yy):		Finish (mm/dd/yy)	
Circle workdays and times:	weekdays:	daytime	nighttime
	weekends:	daytime	nighttime
<b>IX. Scheduled renovation/demolition dates</b>			
Start (mm/dd/yy):		Finish (mm/dd/yy)	
Circle workdays and times:	weekdays:	daytime	nighttime
	weekends:	daytime	nighttime
<b>X. Description of the planned renovation/demolition work and methods to be used:</b>			
<b>XI. Description of the work practices and engineering controls to be used to prevent emissions of asbestos from the work-site:</b>			
Project designer name:		Certification #:	State:
<b>XII. Waste transporter #1</b>			
Name:			
Address:			
City:	State:	Zipcode:	
Contact Person:		Telephone:	
<b>Waste transporter #2</b>			
Name:			
Address:			
City:	State:	Zipcode:	
Contact Person:		Telephone:	

Figure 3. Page 3 of 3  
 Asbestos Notification of Demolition and Renovation  
 June 1, 1998

<b>XIII. Waste disposal site:</b>		
Facility Name:	Telephone:	
Address:		
City:	State:	Zipcode:
<b>XIV. For demolition ordered by a government agency, please identify:</b>		
Name:	Title:	
Authority (Agency):		
Date of order (mm/dd/yy):	Date ordered to begin (mm/dd/yy):	
<b>XV. For emergency renovations:</b>		
Date and time of emergency Date (mm/dd/yy): _____ Time: _____ (a.m./p.m.)		
Description of sudden, unexpected event and the damage caused:		
Explanation of how the event caused an unsafe condition or would cause equipment damage or an unreasonable financial burden:		
Person contacted for approval at the Noise, Radiation & Indoor Air Quality Branch:		
Name:	Date (mm/dd/yy):	Time: _____ (a.m./p.m.)
<b>XVI. Description of procedures to be followed in the event that unexpected asbestos is found or previously nonfriable asbestos material becomes crumbled, pulverized or reduced to powder:</b>		
<b>XVII. I certify that an individual trained in the provisions of Hawaii administrative rules chapter 11-501, and certified as a contractor/supervisor, will be on-site during the entire renovation and/or demolition and evidence that the required training has been accomplished for this and all workers will be available at the work-site.</b>		
_____ Signature of owner/operator		_____ Date (mm/dd/yy):
<b>XVIII. I certify that the information on this notification is correct.</b>		
_____ Signature of owner/operator		_____ Date (mm/dd/yy):

Figure 4. Page 1 of 2  
Waste Shipment Record  
June 1, 1998

**INSTRUCTIONS**

**Waste Generator Section (Items 1 - 9)**

1. Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.
2. If a demolition or renovation, enter the name and address of the company and authorized agent responsible for performing the asbestos removal. In the appropriate spaces, also enter the phone number of the operator.
3. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the WDS. Enter "on-site" if the waste will be disposed of on the generator's property.
4. Provide the name and address of the local, state, or EPA Regional office responsible for administering the asbestos NESHAP program.
5. Indicate the type of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of material that is 1) Friable asbestos material and 2) Nonfriable asbestos material.
6. Enter the number of containers used to transport the asbestos materials listed in item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed here): 1) DM- Metal drums, barrels, 2) DP- Plastic drums, barrels and 3.) BA- 6 mil plastic bags or wrapping.
7. Enter the quantities to each type of asbestos material removed in units of cubic meters (cubic yards).
8. Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here.
9. The authorized agent of the waste generator must read and then sign and date this certification. The date is the date of receipt by transporter. NOTE: The waste generator must retain a copy of this form

**Transporter Section (Items 10 & 11)**

10. Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of the materials as listed on this waste shipment record for transport. Enter date of receipt and signature.
11. The transporter must retain a copy of this form.

**Disposal Site Section (Items 12 & 13)**

12. The authorized representative of the WDS must note in this space any discrepancy between waste described on this manifest and waste actually received as well as any improperly enclosed or contained waste. Any rejected materials should be listed and destination of those materials provided. A site that converts asbestos-containing waste materials to non-asbestos material is considered a WDS.
13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with the statements on this manifest except as noted in item 12. The date is the date of signature and receipt of shipment. NOTE: The WDS must retain a completed copy of this form. The WDS must also send a completed copy to the operator listed in item two.

Figure 4. Page 2 of 2  
Waste Shipment Record  
June 1, 1998

<b>Waste Generator</b>	I. Work site name and address:				
	Owner's name:		Telephone #:		
	II. Operator's name:		Telephone #:		
	Address:				
	III. Waste disposal site (WDS) name:			Telephone #:	
	Mailing address:		Site location:		
	IV. Responsible agency name and address:				
	V. Description of materials		VI. Containers		VII. Total quantity m <sup>3</sup> (yd <sup>3</sup> )
			No.	Type	
VIII. Special handling instruction and additional information:					
IX. Operator's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to the applicable international and government regulations.					
_____		_____	_____		
Printed name and title		Signature	Date		
<b>Transporter</b>	X. Transporter #1 (Acknowledgement of receipt of materials)				
	_____		_____	_____	
Printed name and title		Signature	Date		
Address:					
<b>Disposal Site</b>	XI. Transporter #2 (Acknowledgment of receipt of materials)				
	_____		_____	_____	
Printed name and title		Signature	Date		
Address:					
XII. Indicate any discrepancies here:					
XIII. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in items XII.					
_____		_____	_____		
Printed name and title		Signature	Date		

