

DEPARTMENT OF HEALTH

Adoption of Chapter 11-504
Hawaii Administrative Rules

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SUMMARY

Chapter 11-504, Hawaii Administrative Rules,
entitled "Asbestos Abatement Certification Program," is
adopted.

HAWAII ADMINISTRATIVE RULES

TITLE 11

DEPARTMENT OF HEALTH

CHAPTER 504

ASBESTOS ABATEMENT CERTIFICATION PROGRAM

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SUBCHAPTER 1

General Provisions

§11-504-1 Purpose and scope. These rules require the certification of persons or companies who perform activities at facilities for the evaluation or control of material which contains asbestos. These rules also set forth requirements for work practices and the accreditation of asbestos training.
[Eff] (Auth: HRS §342P) (Imp: 40 CFR Part 763, Appendix C)

§11-504-2 Definitions. As used in this chapter:
"AAR" means the Asbestos Analyst's Registry.
"AAT" means the Asbestos Analytical Testing program.

"Abatement activity" means any activity involving job set up, removal, encapsulation, enclosure, renovation, repair, demolition, construction, alteration, or maintenance of asbestos-containing material.

"Abatement entity" means any person having one or more employees or members involved in any abatement project.

"Abatement project" means any abatement activity which can be predicted and in which the total amount of

friable ACBM disturbed will exceed three linear feet on pipes or three square feet on surfaces or generate more than 0.5 cubic feet of debris.

"Agent" means any person who works on an abatement project for an abatement entity, who is not an employee of the entity (e.g., sub-abatement entity).

"ACBM" means asbestos-containing building material.

"ACM" means asbestos-containing material.

"AIHA" means American Industrial Hygiene Association.

"Analyst" means any person who analyzes bulk or air samples to determine asbestos content or airborne fiber content, respectively.

"Analytical service" means any facility which analyzes bulk or air samples for asbestos content or fiber counting.

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

"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.

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

"Contractor/Supervisor" means any abatement worker who has been certified by the department under these rules to ensure that abatement projects are conducted in accordance with Federal and State requirements.

"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.

"Emergency abatement" means any abatement activity requiring immediate action, due to public health or safety reasons, which was not planned but results from a sudden, unexpected event. This includes abatement required by non-routine failures of equipment.

"EPA" means the United States Environmental Protection Agency.

"EPA guidance document" means EPA 560/5-85-024 Guidance for Controlling Asbestos-Containing Materials in Buildings, 1985.

"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.

"Friable asbestos-containing material" means any material containing more than one percent asbestos which has been applied on ceilings, walls, structural members, piping, duct work, or any other part of a building, which when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. The term includes non-friable asbestos-containing material after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.

"Friable asbestos-containing building material" means any friable asbestos-containing material that is in or on interior structural members or other parts of a school or public and commercial building.

"HIOSH" means Hawaii Occupational Safety and Health.

"Inspector" means a person who is certified by the department to determine the presence, location, and condition of asbestos-containing building material. Excluded from being certified are Federal, state or regulatory inspectors conducting compliance inspections.

"Instructor" means any qualified person approved by the department who provides instruction and training in the person's area of expertise.

"Management planner" or "Asbestos management planner" means any person who is certified by the department to use data gathered by a certified inspector to assess the current or potential hazard posed by asbestos-containing material, to determine the appropriate response actions, and to develop a schedule for implementing these response actions.

"NIOSH" means the National Institute of Occupational Safety and Health.

"NIOSH Method 7400" means the Fibers, Method 7400 of the National Institute of Occupational Safety and Health for the quantitative measure of airborne asbestos as determined by phase contrast microscopy (PCM) analysis.

"NIST" means the National Institute for Standards and Technology.

"NVLAP" means the National Voluntary Laboratory Accreditation Program, administered by the National Institute of Science and Technology.

"OSHA" means the United States Occupational Safety and Health Administration.

"Person" means any individual, partnership, firm, association, public or private corporation, federal agency, the state or any of its political subdivisions, trust, estate, or any legal entity

"PAT" means the Proficiency Analytical Testing Program.

"Project designer" means a person who is certified by the department to determine how asbestos abatement work should be conducted.

"Project monitor" means a person who is certified by the department to monitor abatement projects and collect air clearance samples.

"Removal" means the stripping of any asbestos-containing materials from surfaces or components of a facility.

"Renovation" means the alteration of one or more facility or structural components.

"Repair" means returning damaged ACBM to an undamaged condition or to an intact state so as to prevent fiber release.

"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 asbestos-containing material 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.

"Structure" means a whole facility, building, or a major portion thereof, such as a building wing.

"TSCA" means the U.S. Toxic Substance Control Act 15 U.S.C. 2601, et seq.

"Worker" means any person who is certified by the department to engage in abatement activities.

[Eff _____](Auth: HRS §342P) (Imp: 40 CFR Part 763, Appendix C(A) and HRS §321-15)

§11-504-3 References. The following references contain detailed information on asbestos-related regulations that are applicable to this chapter. The user is responsible for obtaining updates and revisions of the following documents:

- (1) PL 99-519, Toxic Substance Control Act, Title II, Asbestos Hazard Emergency Response Act (AHERA);
- (2) 40 CFR, Part 763, Asbestos Containing Materials in Schools, Final Rule & Notice, October 30, 1987;
- (3) 40 CFR Part 763 Appendix A to Subpart E, Interim Transmission Microscopy Analytical Methods - Mandatory and Nonmandatory - and mandatory Section to Determine Completion of Response Actions, October 30, 1987;
- (4) 40 CFR, Part 763, Asbestos Model Accreditation Plan [59 CFR 5236] (February 3, 1994);
- (5) 40 CFR, Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A (General Provisions) and Subpart M (National Asbestos Standards);
- (6) OSHA 29 CFR 1926.58, General Construction Standard;
- (7) OSHA 29 CFR 1926.1101, Asbestos
- (8) Chapter 12-145, 12-145.1, HIOSH Construction Standards, Asbestos;
- (9) Chapter 12-206, HIOSH Health Standards, Asbestos;
- (10) Chapter 16-77, subchapter 19, DCCA Asbestos Contractors; and

(11) Hawaii Revised Statutes, sections 321-11(26),
321-13(a)(I) and 321-15.
[Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763)

§11-504-4 Certification requirements. No person shall engage in an abatement project as a worker, contractor/supervisor, inspector, management planner, project designer, project monitor, or training provider without a valid and current certification from the director. [Eff _____](Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C)

§11-504-5 Interim certification. (a) Persons certified by another state or agency on the effective date of these rules shall be certified on an interim basis for a period of six months from the effective date of these rules or until their current certification expires, whichever comes first.

(b) All interim-approved persons must apply within six months of the effective date of these rules to become certified. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-6 Certification application. Applications shall be made on forms provided by the director. The department may require further information to better determine whether an application should be approved or denied. If the department requests further information from an applicant, and does not receive that information within sixty days, the application shall be considered incomplete and shall be denied. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-7 Action on application. The director shall approve or deny a completed application within

one hundred eighty days after submittal. The failure of the director to act within the one hundred eighty-day period shall be deemed an approval of the application. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-8 Denial of application. The director may deny an application for certification of any applicant who fails to meet the standards established by these rules, including:

- (1) Failure to demonstrate the ability to comply fully with applicable requirements, procedures, and standards set forth in these rules;
 - (2) Past history of incompetence or negligence on the part of the applicant or the applicant's employees or agents;
 - (3) Submission of false information on an application;
 - (4) Failure to submit the required information or documentation with the application; or
 - (5) Past violations of federal asbestos regulations or state asbestos rules.
- [Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C)

§11-504-9 Suspension, revocation, or modification of certification. The director may suspend, revoke, or modify any certification issued under these rules if, after according the certificate holder an opportunity for a hearing in accordance with chapter 91, HRS, the director determines that the person has not complied with applicable procedures and standards or for any reason given in section 11-504-8. At a minimum, the standards shall include:

- (1) The person has failed to meet the standards set forth in this chapter;
- (2) The person has performed work requiring certification at a job site without being in

physical possession of a copy of his or her current certificate;

- (3) The person has provided his or her own certificate or permitted the duplication of it for use by another;
 - (4) The person has performed work for which certification has not been received;
 - (5) The person has obtained certification from a training provider that is not accredited to offer training for the particular discipline; or
 - (6) The person has violated other asbestos regulations administered by the State.
- [Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C)

§11-504-10 Expiration of certification.

Certification shall expire one year from the day on which the training course was successfully completed, unless certification was suspended or revoked sooner.
[Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-11 Renewal of certification.

(a) Any application for renewal of certification shall contain all the information requested by these rules without reference to previously submitted material.

(b) Evidence of successful completion of an accredited annual refresher course, specific to each discipline, shall be provided with the renewal application. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-12 Reciprocity.

(a) Each applicant for certification who is licensed, certified, or permitted for the appropriate asbestos abatement activity, consulting service, or analytical service in another state may petition the department on a form provided by

the department to grant certification without repetition of the training requirements.

(b) The department may grant certification if the applicant has met licensing, certification, or permitting requirements in another state and these requirements are equal to or more stringent than the requirements for certification in the State of Hawaii [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-13 Summary of requirements for abatement entities. (a) All abatement entities shall register with the department prior to performing any abatement project on facilities. Applications for registration shall be made on forms provided by the director which shall contain the following information:

- (1) Name and address of business owner;
- (2) Name of operations manager; and
- (3) Names and State certification numbers for all employees performing asbestos work.

(b) The following is a list of requirements that abatement entities shall comply with when performing abatement projects in the State of Hawaii:

- (1) Be registered with the department prior to performing any work regulated by this chapter;
- (2) Ensure that proper notification of any proposed abatement project is sent in writing to the department in accordance with sections 11-501-7 and 11-504-14;
- (3) Ensure that records of all abatement projects which it performs are maintained and retained in accordance with section 11-504-17;
- (4) Ensure that an abatement contractor/supervisor remains on-site whenever any abatement activity is being carried out as part of an abatement project;
- (5) Submit evidence to the director upon request that all abatement workers and abatement contractor/supervisors in its employment have

- been properly trained and certified in accordance with section 11-504-22 and 23;
- (6) Ensure that all abatement projects shall be performed as designed by a project designer;
 - (7) If a supplied air system is used for abatement activities, provide the director with access to the system for on-site inspections;
 - (8) Ensure that the person who is responsible for supervising the abatement project meets the requirements set forth in section 11-504-23; and
 - (9) Ensure that all persons participating in abatement projects have completed an accredited initial training course as specified in section 11-504-52, or a refresher training course in accordance with section 11-504-53 within one year of their last accredited training course, and that their certification is current.
- [Eff _____] (Auth: HRS §342P-42)
(Imp: 40 CFR Part 763, Appendix C; and HRS §342P-42)

§11-504-14 Notification of abatement projects.

An abatement entity intending to engage in any abatement project involving the removal of at least 160 square feet, 260 linear feet, or 35 cubic feet of friable asbestos from a facility shall notify the department pursuant to section 11-501-7.

[Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C)

§11-504-15 Emergency abatement projects. An abatement entity shall contact the department by phone prior to beginning an emergency abatement project, and written notification shall be postmarked no more than twenty-four hours after beginning the project.

[Eff _____] (Auth: HRS §342P-41) (Imp: 40
CFR Part 763, Appendix C)

§11-504-16 Retention of records. Each registered abatement entity shall maintain records and retain documents in accordance with section 11-504-17 of all abatement projects which it performs and shall make these records and documents available to the department upon request. The abatement entity shall retain the records for no less than thirty years after completion of the abatement project. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-17 Required records. The abatement entity shall record the following information for each abatement project:

- (1) The results of bulk sampling analysis of suspect material to be disturbed that is not assumed to be asbestos-containing, including the name and certificate number of the analytic service used;
- (2) The location and work plan of the project and estimated amount of asbestos involved in the project;
- (3) The scheduled and actual starting and completion dates. If the actual completion date differs from that originally scheduled, a statement of reasons for the difference shall be included;
- (4) Documentation of compliance with all asbestos-related regulatory requirements;
- (5) Copies of all asbestos-related correspondence with regulatory agencies concerning the project (i.e., building or demolition permits, notices of violation, etc.);
- (6) The name and address of the authorized asbestos disposal facility to which the asbestos-containing materials were taken, documentation of the amount of asbestos

- received for disposal, and confirmation of asbestos received for disposal, and confirmation of proper disposal;
- (7) The methodology and results of all air sampling conducted during the abatement process, the name and certificate number of the project monitor hired to perform such sampling, and the name and registration number of the analytical service employed to analyze such samples;
 - (8) A complete list of workers, contractor/supervisors, and other employees or agents participating in the abatement project, along with a copy of their current certificate; and
 - (9) Descriptions, including dates and times, of unplanned exposures to asbestos and work-site accidents. [Eff _____] (Auth: HRS §342P-42) (Imp: 40 CFR Part 763, Appendix C)

§11-504-18 Documents to be retained on-site. The following documents shall be retained on-site for the duration of the abatement project:

- (1) A current copy of chapters 501 through 504;
- (2) Documentation of the adequacy of compressed air systems and respiratory protection systems including a list of compatible components and specifications of the types and maximum number of respirators that may be used with the system;
- (3) Copies of the procedures for the use of the decontamination enclosure system or any other procedures which have been established to prevent contamination of areas outside the work area;
- (4) Copies of procedures to be followed during medical emergencies, including phone numbers of the nearest hospital or other emergency

facility, which shall be posted by the nearest telephone;

- (5) Copies of certificates held by all abatement workers and abatement contractor/supervisors actively engaged in the abatement project;
- (6) Certification of the project designer who wrote procedures for the job;
- (7) Copies of bulk sampling results, including inspector and laboratory names for all suspect material to be disturbed that is not assumed to be asbestos-containing; and
- (8) Records of all air sampling as required in section 12-145-5. [Eff _____]
(Auth: HRS §342P-42) (Imp: 40 CFR Part 763, Appendix C)

§11-504-19 Summary of requirements for laboratories and analysts. (a) All laboratories or analysts, or both must annually register with the department in order to provide analysis on samples from regulated facilities. All applications for registration shall be made on forms provided by the department which shall contain the following information:

- (1) Name and address of business owner;
- (2) Name and address of the laboratory;
- (3) Results of most recent quarterly test by AIHA;
- (4) Names of all analysts employed in the laboratory;

(b) All analysts performing asbestos analysis on samples from regulated facilities shall have completed the NIOSH 582 course in asbestos analysis or its equivalent.

(c) Bulk sample analysis requires participation in a laboratory testing program, and air sample analysis requires participation in either a laboratory testing program or an individual analyst testing program. All members of a participating laboratory

shall participate in the testing rounds and records of the results shall be kept by the laboratory.

(d) Bulk samples shall be analyzed by polarized light microscopy (PLM) in accordance with "Interim method for the determination of asbestos in bulk insulation samples", found in 40 CFR Part 763, Appendix E to Subpart E. The laboratory or analyst shall be accredited in one of the following programs:

- (1) The National Voluntary Laboratory Accreditation Program (NVLAP), administered by NIST; or
- (2) The Bulk Asbestos Quality Assurance (BAQA) program administered by AIHA.

(e) Air clearance samples analyzed by transmission electron microscopy (TEM) shall be analyzed in accordance with "Interim transmission electron microscopy analytical methods", found in 40 CFR Part 763 Appendix A to Subpart E. The laboratory or analyst shall be accredited with NVLAP.

(f) Air samples analyzed by phase contrast microscopy (PCM) shall be performed by laboratories or analysts that use the NIOSH 7400 method and participate in one of the following programs:

- (1) The laboratory Proficiency Analytical Testing (PAT) program, administered by AIHA; or
- (2) The Asbestos Analytical Testing (AAT) program, administered by AIHA and registered in the Asbestos Analysts Registry (AAR).

(g) Any changes in personnel or status with AIHA or NIST shall require written notification to the department that is received or postmarked within thirty days. [Eff _____] (Auth: HRS §342P-42)
(Imp: 40 CFR Part 763, Appendix C)

§11-504-20 Reserved

SUBCHAPTER 2

Certification of Workers and Contractor/Supervisors

§11-504-21 General requirements for certification. (a) No person shall perform any abatement project without first being certified as a worker or a contractor/supervisor by the department.

(b) No person shall engage in any on-site supervision of a worker during an abatement project without first being certified as a contractor/supervisor.

(c) Any person seeking certification as a worker or contractor/supervisor shall apply for a certificate in accordance with section 11-504-6.

[Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-22 Workers. (a) A worker may provide services that include the following:

- (1) Perform abatement work as designed by a certified project designer; and
- (2) Perform small-scale, short duration or emergency activities.

(b) The minimum requirements necessary for certification as a worker include:

- (1) Is at least eighteen years of age; and
- (2) Has successfully completed an accredited four-day, initial training course in accordance with section 11-504-52(a) or any associated refresher course in accordance with section 11-504-53.

[Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C(1)(B)(1))

§11-504-23 Contractor/Supervisors. (a) A contractor/supervisor may provide services that include the following:

- (1) Perform abatement work as described for workers in accordance with 11-504-22(a);
- (2) Ensure proper work practices are followed; and

- (3) Ensure that the abatement project is performed in accordance with the specification of the certified project designer.
 - (b) The minimum requirements necessary for certification as a contractor/supervisor include:
 - (1) Is at least eighteen years of age; and
 - (2) Fulfills one of the following sets of requirements:
 - (A) Has six months of experience working within containment and has either successfully completed a five-day, initial contractor/supervisor training course in accordance with 11-504-52(b) or a refresher course in accordance with 11-504-53. The abatement entity shall submit evidence of these requirements to the department, including a summary of past contracts and abatement projects completed; or
 - (B) Three years of experience in general construction and either successful completion of an accredited contractor/supervisor training course in accordance with subsection 11-504-52(b) or any associated refresher training course in accordance with section 11-504-53. The asbestos abatement entity shall submit evidence of this training and experience to the department, including a summary of past contracts and abatement projects completed.
- [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(B)(2))

§11-504-24 Reserved

§11-504-25 Reserved

§11-504-26 Reserved

§11-504-27 Reserved

§11-504-28 Reserved

§11-504-29 Reserved

§11-504-30 Reserved

SUBCHAPTER 3

Inspectors, Management Planners, Project Designers, and Project Monitors

§11-504-31 Definitions. As used in this subchapter:

"Engineering" means any service or creative work, the adequate performance of which requires engineering education, training, State licensing, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences. This includes consultation, investigation, evaluation, planning, and design of engineering works and systems, planning the use of land and water, and accomplishing engineering surveys. Such services or work may be either for public or private purposes, and may be performed in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and equipment systems of a mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property.

"Industrial hygiene" means the recognition of environmental factors and stresses associated with work and work operations and the understanding of their effects on people and their well-being in the workplace and the community; the evaluation, through training and experience, and with the aid of quantitative measurement techniques, of the magnitude of these factors and stresses in terms of ability to impair a person's health and well-being; and the prescription of methods to control or reduce such factors and stresses when necessary to alleviate their effects.
[Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C and HRS §321-15)

§11-504-32 General requirements. (a) No person shall provide any of the services in this subchapter without first being certified by the department to provide such services.

(b) Any person seeking certification as an inspector, management planner, project designer or project monitor shall apply for certification in accordance with section 11-504-6.

(c) All certified persons shall keep a copy of their certificate at the location where they are conducting the abatement work. [Eff _____]
(Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-33 Inspector. (a) A person certified as an inspector may provide services that include the following:

- (1) Collect bulk samples from suspect asbestos-containing material;
- (2) Evaluate the condition of asbestos-containing materials in buildings;
- (3) Inspect buildings for the presence of asbestos-containing materials;
- (4) Formulate plans for bulk sampling strategies;
and

- (5) Determine whether suspect asbestos-containing materials are friable or non-friable.
- (b) The minimum requirements necessary for certification as an inspector are:
 - (1) Possession of at least two years of full-time college education from an accredited college or university, successful completion of an inspector initial training course, and any associated annual refresher courses accredited by the department;
 - (2) Possession of a high school diploma or General Equivalency Diploma, two years of experience in engineering or industrial hygiene, successful completion of an inspector initial training course, and any associated annual refresher training courses accredited by the department; or
 - (3) Possession of a high school diploma or General Equivalency Diploma, one year of experience in abatement activities, successful completion of an inspector initial training course, and any associated annual refresher courses accredited by the department. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(B)(3) and (1)(E)(1))

§11-504-34 Management planner. (a) A person certified as a management planner may provide services that include the following:

- (1) Utilize information gathered by certified inspectors to assess the potential hazards of asbestos-containing materials;
- (2) Develop abatement response actions, management plans, or operation and maintenance plans;
- (3) Select and recommend abatement actions to mitigate the health hazards posed by asbestos-containing materials in facilities; and

- (4) Provide advice to clients on the selection and use of personal protective equipment.
- (b) The minimum requirements necessary for certification as a management planner are:
 - (1) Possession of a bachelor's degree in project planning, management, environmental sciences, engineering, architecture, industrial hygiene, occupational health, or a related scientific field; six months of experience in abatement activities, successful completion of an inspector and management planner initial training course, and any associated annual refresher courses accredited by the department;
 - (2) Possession of an associates degree in project planning, management, environmental sciences, engineering, construction, architecture, industrial hygiene, occupational health, or a related scientific field, one year of experience in abatement activities, successful completion of an inspector and management planner initial training course, and any associated annual refresher courses accredited by the department; or
 - (3) Possession of a high school diploma or General Equivalency Diploma, three years of experience in engineering or industrial hygiene, one year of experience in abatement activities, successful completion of an inspector and management planner initial training course, and any associated annual refresher courses accredited by the department. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(B)(4) and (1)(E)(2))

§11-504-35 Project designer. (a) A person certified as a project designer may provide services that include the following:

- (1) Provide the design, preparation, and evaluation of abatement projects or abatement project specifications;
 - (2) Prepare bidding documents, architectural drawings, and schematic representation of material locations; and
 - (3) Determine how the abatement should be conducted.
- (b) The minimum requirements necessary for certification as a project designer are:
- (1) Status as either an American Board of Industrial Hygiene Certified Industrial Hygienist, a licensed Professional Engineer, or licensed Architect, six months of experience in abatement projects, successful completion of an accredited project designer initial training course, and any associated annual refresher courses accredited by the department;
 - (2) Possession of a bachelor's degree from an accredited four-year college or university, one year of experience in abatement projects, successful completion of a project designer initial course, and any associated annual refresher courses accredited by the department;
 - (3) Possession of an associates degree in project planning, management, environmental sciences, engineering, construction, architecture, industrial hygiene, occupational health, or a related scientific field, three years of experience in abatement projects, the successful completion of a project designer initial training course, and any associated annual refresher courses accredited by the department; or
 - (4) Possession of a high school diploma or General Equivalency Diploma, four years of experience in engineering or industrial hygiene; one year of experience in abatement projects, successful completion of a project

designer initial training course, and any associated annual refresher courses accredited by the department.

[Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C(1)(B)(5)
and (1)(E)(3))

§11-504-36 Project monitor. Project monitors are required pursuant to section 11-502-9 but are not required for all abatement projects. (a) A person certified as a project monitor may provide services that include the following:

- (1) Recommend to the building owner abatement options to mitigate the health hazard posed by the asbestos-containing materials in buildings;
- (2) Collect air samples for the purpose of area and clearance monitoring at abatement project sites provided that the monitor is not an employee of the abatement entity performing the abatement, unless the project is conducted solely by in-house employees;
- (3) Provide advice to the building owner on selection and use of personal protective equipment;
- (4) Oversee abatement projects carried out by abatement entities;
- (5) Perform visual inspections of completed abatement projects to determine if the project meets completion requirements; and
- (6) Serve as a building owner representative to ensure that abatement is done correctly.

(b) The minimum requirements necessary for certification as a project monitor are:

- (1) Possession of a bachelor's degree from an accredited four-year college or university, documented participation in a minimum of three abatement projects inside an asbestos containment area, successful completion of a project monitor initial training course, and

- any associated annual refresher courses accredited by the department;
- (2) Possession of two years of full-time college education from an accredited college or university, one year of experience in engineering or industrial hygiene, documented participation in a minimum of three abatement projects inside an asbestos containment area, successful completion of a project monitor initial training course, and any associated annual refresher courses accredited by the department; or
 - (3) Possession of a high school diploma or General Equivalency Diploma, three years of experience in engineering or industrial hygiene, documented participation in a minimum of three abatement projects inside an asbestos containment area, successful completion of a project monitor initial training course, and any associated annual refresher course accredited by the department. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(B)(6))

§11-504-37 Reserved

§11-504-38 Reserved

§11-504-39 Reserved

§11-504-40 Reserved

SUBCHAPTER 4

Accreditation of Training Courses

§11-504-41 General requirements. All training courses which are used to fulfill certification requirements must be accredited by the department. One day of training equals eight hours, including breaks and lunch. Any applicant seeking accreditation of an asbestos training course shall comply with the requirements of this subchapter and shall apply to the department as required by chapter 11-504-43 before accreditation may be granted by the department. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(3))

§11-504-42 Interim accreditation. (a) Training courses which are accredited, licensed, certified, permitted or approved by a state other than Hawaii which has EPA approval on the effective date of these rules shall be accredited on an interim basis, according to the following guidelines, for a period of six months or until their current accreditation expires, whichever is sooner, at which time they shall meet all current requirements. Complete accreditation shall be granted following an audit of the course(s) and if they are found to be in compliance with this subchapter.

(b) New applicants shall be granted interim accreditation upon submission of all required materials for a period of six months, during which the department shall audit their training course(s) and determine whether the course(s) meets the requirement of this subchapter. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(3))

§11-504-43 Application for training course accreditation. (a) The applicant for accreditation of an asbestos training course must submit the following information in writing to the department in compliance with the instructions on the application form:

- (1) The name, address, and phone number of the firm or person to be presenting the course;
- (2) The type of course or courses for which accreditation is being requested;
- (3) A detailed outline of the course curriculum including the amount of time allotted to each topic;
- (4) The name and qualifications of the person developing the instruction program for each topic or a statement that the training materials have been purchased from the EPA and have been updated to meet current requirements;
- (5) The names of the course instructors and documentation to demonstrate that they are adequately qualified and experienced in the areas they are to teach;
- (6) A description of the instruction program for each topic, including teaching methods to be used and copies of written materials to be distributed;
- (7) A description of the type of equipment to be used for demonstrations and "hands-on" practice exercises, such as respirators, negative air units, water spray devices, protective clothing, and construction materials;
- (8) The instructor-to-student ratio for "hands-on" practice exercises and demonstrations;
- (9) Documentation that the number of instructors, the amount of equipment, and the facilities are adequate to provide the students with proper training;
- (10) Documentation that the training course shall give a written, multiple choice examination at the conclusion of the course;
- (11) Documentation that the minimum grade of seventy per cent correct must be obtained for a student to successfully complete the course;

- (12) Documentation that students who attend and successfully complete the course shall be issued numbered certificates indicating the name of the training provider, student, and the course completed, the dates of the course and the examination, and a statement indicating that the student passed the written exam;
- (13) Documentation that the department shall be provided, in writing, the names and examination scores of all course participants at the completion of the course; and
- (14) An agreement to inform the department in writing at least thirty days in advance of the start of any asbestos training course to be conducted by the applicant, and permission for representatives of the department to attend any asbestos training course and take the examination without advance notice or cost to the department.

(b) Within thirty working days after receiving an application, the department shall acknowledge receipt of the application and notify the applicant of any deficiency in the application. Within thirty working days after receiving the amended application that includes any additional information requested by the department, the department shall approve or deny the application. If the department requests further information from an applicant, and does not receive that information within thirty days, the application shall be considered abandoned and certification shall be denied. [Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C(3))

§11-504-44 Denial of application. The department may deny an application for accreditation of any training course that fails to meet the standards established by these rules, including, but not limited to:

- (1) Failure to demonstrate the ability of the training course to comply fully with applicable requirements, procedures, and standards set forth in these rules;
 - (2) Past history of incompetence or negligence in providing training courses on the part of the responsible person, employees, or agents;
 - (3) Submission of false information on an application or issuance of false documentation;
 - (4) Failure to demonstrate the ability of the training course to effectively train course participants; or
 - (5) Past history of noncompliance with federal or state asbestos regulations.
- [Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C)

§11-504-45 Complete accreditation. (a) Final accreditation shall be granted for a period of two years after the department has determined that the applicant's asbestos training course meets the requirements of these rules. Accreditation may involve an audit conducted by the department, which can include attending the training course and/or reviewing records kept by the training provider.

(b) Any significant change in an accredited course must be reported to and approved by the department prior to presenting the changed course. Course changes must be received by the director thirty days prior to the changed course being offered.

(c) The department maintains the right to attend any training course, regardless of accreditation status, without advance notice.

(d) Failure by the department to act on an application for complete accreditation shall be deemed an approval of the application. [Eff _____]
(Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(3))

§11-504-46 Suspension, revocation, and modification of accreditation. (a) The department may suspend, revoke, or modify any training course accreditation after a hearing in accordance with chapter 91, HRS, for:

- (1) Failure to comply with the applicable requirements, procedures, and standards;
- (2) Misrepresentation of the extent of a training course's approval by a state or the EPA;
- (3) Failure to submit required information or notifications in a timely manner;
- (4) Failure to maintain requisite records;
- (5) Falsifications of accreditation records, instructor qualifications, or other accreditation information; or
- (6) Failure to adhere to the training standards and requirements of the EPA or chapter 504.

(b) The department may also suspend or withdraw training course accreditation if an accredited training course instructor or other person with supervisory authority over the delivery of training has been found in violation of other asbestos rules administered by the department. A finding of violation, or execution of a consent agreement and order constitute evidence of a failure to comply with relevant statutes, rules, and regulations. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(4))

§11-504-47 Letters of accreditation. After accreditation has been granted, a certificate of accreditation shall be issued to the applicant and shall contain the following:

- (1) The date of issuance;
- (2) The date of expiration;
- (3) The name and address of the training agency, institution, firm, or person, and the name of the training course;
- (4) A statement as to whether the accreditation is complete or interim; and

- (5) The name, address, and phone number of the state certifying authority.
[Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C)

§11-504-48 Expiration of accreditation. (a) Interim accreditation shall expire six months from the first day of the month stated on the letter of interim accreditation.

(b) Complete accreditation shall expire two years from the first day of the month stated on the certificate of accreditation. [Eff _____]
(Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-49 Renewal of accreditation. (a) To renew an accreditation of an asbestos training course, the applicant shall resubmit the information required in section 11-504-43 without reference to any previously submitted material. A visitation is not required to renew accreditation.

- (b) In any case in which the responsible person of a training course with complete accreditation has filed an application in proper form for renewal, not less than sixty days prior to expiration of its existing complete accreditation, such existing complete accreditation shall not expire until final action on the application has been taken by the department.
[Eff _____] (Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C)

§11-504-50 Reciprocity. (a) Each applicant for accreditation of an asbestos training course which is accredited, licensed, certified, permitted, or approved by a state other than Hawaii which has EPA approval may petition the director to grant complete accreditation

without a visitation of the in-progress training course by the department. The department shall evaluate the requirements for accreditation, approval, permitting, certification, or licensure of the approving authority and shall grant accreditation without a visitation if the department determines that the requirements of the authority are equal to or greater than the requirements for accreditation in the State.

(b) If the asbestos training course seeking complete accreditation is not accredited, licensed, certified, permitted, or approved by another state or by a federal agency, then an audit of the course by a department representative during the interim accreditation period will be performed.

[Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(H))

§11-504-51 Retroactive accreditation. Training courses that have taken place prior to accreditation by the department may be accredited retroactively by the department, provided that all accreditation requirements, except the visitation, are met by the course and the candidate instructor.

[Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C)

§11-504-52 Initial course contents and requirements. (a) The initial training course for abatement workers shall consist of a four-day course that shall include lectures, demonstrations, fourteen hours of hands-on training, individual respirator fit testing, course review, and one or more written examinations. The fourteen hours of hands-on training shall permit students to have actual experience performing tasks associated with asbestos abatement. The instructor-to-student ratio shall be no less than 1 to 25 during the hands-on portion of the course. The department recommends the use of audiovisual materials

to complement lectures where appropriate. The training course shall adequately address the following topics:

- (1) Physical characteristics of asbestos including the identification of asbestos and its aerodynamic characteristics, typical uses, physical appearance, and a summary of abatement control options;
- (2) Potential health effects related to asbestos exposure including the nature of asbestos-related diseases, routes of exposure, dose-response relationships and the lack of a safe exposure level, the synergistic effect between cigarette smoking and asbestos exposure, the latency period for asbestos-related diseases, and a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancers of other organs;
- (3) Employee personal protective equipment including the classes and characteristics of respirator types; limitations of respirators and their proper selection, inspection, donning, use, maintenance, and storage procedures; methods for field testing of the facepiece-to-face seal (positive and negative pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter the fit of the respirator (e.g., facial hair); components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing; and regulations covering personal protective equipment;
- (4) State-of-the-art work practices including proper work practices for abatement activities with descriptions of proper construction, maintenance of barriers and decontamination enclosure systems; positioning of warning signs; electrical and

ventilation system lockout; proper working techniques for minimizing fiber release; use of wet methods; use of negative pressure exhaust ventilation equipment; use of high efficiency particulate air (HEPA) vacuums; proper clean up and disposal procedures; work practices for removal, encapsulation, enclosure, and repair of ACM; emergency procedures for sudden releases; potential exposure situations; transport and disposal procedures; and recommended and prohibited work practices;

- (5) Personal hygiene including entry and exit procedures for the work area; use of showers; avoidance of eating, drinking, smoking, and chewing in the work area; and potential exposure, such as family exposure;
- (6) Additional safety hazards that may be encountered during the abatement activities and how to deal with them, including electrical hazards, heat stress, air contaminants other than asbestos, fire and explosion hazards, scaffold and ladder hazards, slips, trips and falls, and confined spaces;
- (7) Medical monitoring including OSHA and EPA Worker Protection Rule requirements for physical examinations, including pulmonary function tests, chest x-rays, medical history for each employee, and any other tests specified by the physician;
- (8) Air monitoring including procedures to determine airborne concentrations of asbestos fibers, focusing on how personal air sampling is performed and the reasons for it;
- (9) Relevant federal, state and local regulatory requirements, procedures, and standards with particular attention directed at relevant EPA, OSHA, and state rules concerning abatement workers;

- (10) Establishment of respiratory protection programs; and
- (11) A review of key aspects of the training course.

(b) The initial training course for contractors/Supervisors shall consist of a five-day course that shall include lectures, demonstrations, at least fourteen hours of hands-on training, individual respirator fit testing, course review, and one or more written examinations. The fourteen hours of hands-on training shall permit students to have actual experience performing tasks associated with asbestos abatement. The instructor-to-student ratio shall be no less than 1 to 25 during the hands-on portion of the course. The department recommends the use of audiovisual materials to complement lectures, where appropriate. The program shall adequately address the following topics:

- (1) The physical characteristics of asbestos and asbestos-containing materials including the identification of asbestos and its aerodynamic characteristics, typical uses, physical appearance, a review of hazard assessment considerations, and a summary of abatement control options;
- (2) Potential health effects related to asbestos exposure including the nature of asbestos-related diseases, routes of exposure, dose-response relationships and the lack of a safe exposure level, synergism between cigarette smoking and asbestos exposure, the latency period for diseases, and a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancers of other organs;
- (3) Employee personal protective equipment including the classes and characteristics of respirator types; limitations of respirators and their proper selection, inspection, donning, use, maintenance, and storage procedures; methods for field testing of the

facepiece-to-face seal (positive and negative pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter the fit of the respirator (e.g., facial hair); components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing; and rules covering personal protective equipment;

- (4) State-of-the-art work practices including proper work practices for abatement activities with descriptions of proper construction and maintenance of barriers and decontamination enclosure systems; positioning of warning signs; electrical and ventilation system lockout; proper working techniques for minimizing fiber release; use of wet methods; use of negative pressure exhaust ventilation equipment; use of high efficiency particulate air (HEPA) vacuums; proper clean up and disposal procedures; work practices for removal, encapsulation, enclosure, and repair of ACM; emergency procedures for unplanned releases; potential exposure situations; transport and disposal procedures; and recommended and prohibited work practices. Discussion of new abatement-related techniques and methodologies may be included;
- (5) Personal hygiene including entry and exit procedures for the work area; use of showers; avoidance of eating, drinking, smoking, and chewing in the work area; and potential exposures, such as family exposure;
- (6) Additional safety hazards that may be encountered during the abatement activities and how to deal with them including electrical hazards, heat stress, air contaminants other than asbestos, fire and

explosion hazards, scaffold and ladder hazards, slips, trips, and falls, and confined spaces;

- (7) Medical monitoring including HIOSH requirements for a pulmonary function test, chest X-rays and a medical history for each employee;
- (8) Air monitoring including procedures to determine airborne concentrations of asbestos fibers, including descriptions of aggressive air sampling, sampling equipment and methods, reasons for air monitoring, types of samples, and interpretation of results, specifically from analyses performed by polarized light, phase-contrast, and electron microscopy analysis;
- (9) Relevant federal, state, and local regulatory requirements including the following procedures and standards:
 - (A) Requirements of TSCA Title II;
 - (B) 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subparts A (General Provisions) and M (National Emission Standards for Asbestos);
 - (C) HIOSH Asbestos Construction, General Industry and respiratory protection Standards (chapter 12-145 and 12-206);
 - (D) Chapters 501 and 502;
 - (E) 40 CFR, Part 763, Asbestos Hazard Emergency Response Act (AHERA);
 - (F) Applicable state and local rules, and differences between federal and state requirements, where they apply, and the effects on public and non-public schools or public or commercial buildings;
- (10) Respiratory protection programs and medical monitoring programs;
- (11) Insurance and liability issues including worker's compensation coverage and

- exclusions, third-party liabilities and defenses, insurance coverage and exclusions;
- (12) Record keeping for asbestos abatement projects including records required by federal, state, and local rules, and records recommended for legal and insurance purposes;
 - (13) Supervisory techniques for asbestos abatement activities, including supervisory practices to enforce and reinforce the required work practices and discourage unsafe work practices;
 - (14) Contract specifications including discussion of key elements that are included in contract specifications; and
 - (15) A review of key aspects of the training course.

(c) The initial training course for inspectors shall consist of a three-day course that shall include lectures, demonstrations, four hours of hands-on training, individual respirator fit testing, course review, and a written examination. The four hours of hands-on training shall permit students to have actual experience performing tasks associated with asbestos inspection. The instructor-to-student ratio shall be no less than 1 to 25 during the hands-on portion of the course. The department recommends the use of audiovisual materials to complement lectures, where appropriate. The inspector training course shall adequately address the following topics:

- (1) Background information on asbestos including the identification of asbestos, with examples and discussion of the uses and locations of asbestos in buildings; and the physical appearance of asbestos;
- (2) Potential health effects related to asbestos exposure including the nature of asbestos-related diseases; routes of exposure; dose-response relationships and the lack of a safe exposure level; the synergistic effect between cigarette smoking and asbestos exposure; the latency period for asbestos-

related diseases; a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancers of other organs;

- (3) Functions, qualifications, and role of inspectors and management planners, including discussions of prior experience; discussions of the functions of a certified asbestos inspector as compared to those of a certified management planner; discussion of inspection process including inventory of ACM and physical assessment;
- (4) Legal liabilities and defenses including responsibilities of the inspector and management planner; a discussion of comprehensive general liability policies, claims-made, and occurrence policies, environmental and pollution liability policy clauses; state liability insurance requirements; bonding and the relationship of insurance availability to bond availability;
- (5) Understanding building systems including the interrelationship between building systems, with an overview of common building physical plan layouts; heat, ventilation, and air conditioning system types, physical organization, and where asbestos is found on heat, ventilation, and air conditioning components; building mechanical systems, their types and organization, and where to look for asbestos on such systems; inspecting electrical systems, including appropriate safety precautions; and reading blueprints and as-built drawings;
- (6) Public, employee, and building occupant relations, including notifying employee organizations about the inspection; signs to warn building occupants; tact in dealing with occupants and the press; scheduling of inspections to minimize disruption; and

education of building occupants about actions being taken;

- (7) Pre-inspection planning and review of previous inspection records including scheduling the inspection and obtaining access; building record review; identification of probable homogeneous areas from blueprints or as-built drawings; consultation with maintenance or building personnel; review of previous inspection, sampling, and abatement records of a building; and the role of the inspector in exclusions for previously performed inspections;
- (8) Inspecting for friable and non-friable asbestos-containing material and assessing the condition of friable asbestos-containing material including procedures to follow in conducting visual inspections for friable and non-friable asbestos-containing material; types of building materials that may contain asbestos; touching materials to determine friability; open return air plenums and their importance in heat, ventilation, and air conditioning systems; assessing damage, significant damage, potential damage, and potential significant damage; amount of suspected asbestos-containing material, both in total quantity and as a percentage of the total area; type of damage; accessibility; asbestos-containing material's potential for disturbance; known or suspected causes of damage or significant damage; and deterioration as assessment factors;
- (9) Bulk sampling and documentation of asbestos in schools including detailed discussion of the "Simplified Sampling Scheme for Friable Surfacing Materials" (EPA 560/5-85-030a October 1985); techniques to ensure sampling in a randomly distributed manner for other than friable surfacing materials; sampling of

non-friable materials; techniques for bulk sampling; sampling equipment the inspector should use; patching or repair of damage done in sampling; an inspector's repair kit; discussion of polarized light microscopy; choosing an accredited laboratory to analyze bulk samples; and quality control and quality assurance procedures;

- (10) Inspectors' respiratory protection and personal protective equipment including the classes and characteristics of respirator types; limitations of respirators; proper selection, inspection, donning, use, maintenance, and storage procedures for respirators; methods for field testing of the facepiece-to-face seal (positive and negative pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respirator fit (e.g., facial hair); components of a proper respiratory protection program; selection and use of personal protective clothing; and use, storage, and handling of non-disposable clothing;
- (11) Record keeping and writing the inspection report including labeling of samples and keying sample identification to sampling location; recommendations on sample labeling; detailing of asbestos-containing material inventory; photographs of selected sampling areas and examples of asbestos-containing material condition; information required for inclusion in the management plan by TSCA Title II section 203(i)(1);
- (12) Regulatory review including:
 - (A) Requirements of TSCA title II;
 - (B) 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subparts A (General

- Provisions) and M (National Emission Standards for Asbestos);
- (C) HIOSH Asbestos Construction, General Industry and respiratory protection Standards (chapters 12-145 and 12-206);
 - (D) Chapter 501 (Asbestos Emission Standards) and 502 (Asbestos-Containing Materials in Schools) of Title 11;
 - (E) Asbestos Hazard Emergency Response Act (AHERA) 40 CFR Part 763; and
 - (F) Applicable state and local rules, and differences between federal and state requirements, where they apply, and the effects on public and non-public schools or public or commercial buildings;
- (13) A field trip including a walk-through inspection; on-site discussion about information gathering and the determination of sampling locations; on-site practice in physical assessment; and classroom discussion of field exercise; and
- (14) A review of key aspects of the training course.

(d) The initial training course for management planners shall consist of the three-day inspector training course outlined in paragraph (c) and a two-day management planner training course. Successful completion of an accredited inspector course shall be a prerequisite for admission to the management planner training course. The two-day training program shall include lectures, demonstrations, course review, and one or more written examinations. The department recommends the use of audiovisual materials to complement lectures, where appropriate. The asbestos management planner training course shall adequately address the following topics:

- (1) Course overview including the role and responsibilities of a management planner; operations and maintenance programs; setting work priorities; and protection of building occupants;

- (2) Evaluation and interpretation of survey results including review of TSCA Title II requirements for inspection and management plans for school building as given in section 203(i)(1) of TSCA Title II; interpretation of field data and laboratory results; and a comparison between field inspectors' data sheet with laboratory results and site survey;
- (3) Hazard assessment including amplification of the difference between physical assessment and hazard assessment; the role of the management planner in hazard assessment; an explanation of significant damage, damage, potential damage, and potential significant damage; the use of a description code or decision tree for assessment of asbestos-containing material; assessment of friable asbestos-containing material; the relationship of accessibility, vibration sources, use of adjoining space, and air plenums and other factors to hazard assessment;
- (4) Legal implications including liability; insurance issues specific to planners; liabilities associated with interim control measures, in-house maintenance, repair, and removal; use of results from previously performed inspections;
- (5) Evaluation and selection of control options including an overview of encapsulation, enclosure, interim operations and maintenance, and removal; advantages and disadvantages of each method; response actions described via a decision tree or other appropriate method; work practices for each response action; staging and prioritizing of work in both vacant and occupied buildings; and the need for containment barriers and decontamination in response actions;

- (6) Role of other professionals including the use of industrial hygienists, engineers, and architects in developing technical specifications for response actions; any requirements that may exist for architect sign-off of plans; and the team approach to design of high-quality job specifications;
- (7) Developing an operations and maintenance plan including the purpose of the plan; a discussion of applicable EPA guidance documents; what actions should be taken by custodial staff; proper cleaning procedures; steam cleaning and HEPA vacuuming; reducing disturbance of asbestos-containing materials; scheduling operation and maintenance for off-hours; rescheduling or canceling renovation in areas with asbestos-containing material; boiler room maintenance; disposal of asbestos-containing material; in-house procedures for asbestos-containing materials-bridging and penetrating encapsulants; pipe fittings; metal sleeves; polyvinyl chloride, canvas, and wet wraps; muslin with straps; fiber mesh cloth; mineral wool, and insulating cement; discussion of employee protection programs and staff training; and a case study in developing an operation and maintenance plan including the development, implementation process, and problems that have been experienced;
- (8) Regulatory review including:
 - (A) Requirements of TSCA title II;
 - (B) 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subparts A (General Provisions) and M (National Emission Standards for Asbestos);
 - (C) HIOSH Asbestos Construction, General Industry and respiratory protection Standards (chapters 12-145 and 12-206);

- (D) Chapter 501 (Asbestos Emission Standards) and 502 (Asbestos-Containing Materials in Schools) of Title 11;
 - (E) Asbestos Hazard Emergency Response Act (AHERA) 40 CFR Part 763; and
 - (F) Applicable state and local rules, and differences between federal and state requirements, where they apply, and the effects on public and non-public schools or public or commercial buildings;
- (9) Record-keeping for the management planner including the use of a field inspector's data sheet along with laboratory results; ongoing record-keeping as a means to track asbestos disturbance; and procedures for record-keeping;
 - (10) Assembling and submitting the management plan including plan requirements in TSCA Title II section 203(i)(1); and the management plan as a planning tool;
 - (11) Financing abatement actions including economic analysis and cost estimates; development of cost estimates; present costs of abatement versus future operations and maintenance costs; and Asbestos School Hazard Abatement Act grants and loans; and
 - (12) A review of key aspects of the training course.

(d) The initial training course for abatement project designers shall consist of a three-day course that shall include lectures, demonstrations, course review, and one or more written examinations. The department recommends the use of audiovisual material to complement lectures where appropriate. The three-day abatement project designer training course shall adequately address the following topics:

- (1) Background information on asbestos including identification of asbestos; examples and discussion of the uses and locations of asbestos in buildings; and the physical appearance of asbestos;

- (2) Potential health effects related to asbestos exposure including the nature of asbestos-related diseases; routes of exposure; dose-response relationships and the lack of a safe exposure level; the synergistic effect between cigarette smoking and asbestos exposure; the latency period of asbestos-related diseases; and a discussion of the relationship between asbestos exposure and asbestosis, lung cancer, mesothelioma, and cancers of other organs;
- (3) An overview of abatement construction projects including use of abatement as a portion of a renovation project; and OSHA requirements for notification of other abatement entities on a multi-employer site, pursuant to chapter 12-145;
- (4) Safety system design specifications including design, construction and maintenance of containment barriers and decontamination enclosure systems; positioning of warning signs; electrical and ventilation system lock out; proper working techniques for minimizing fiber release; entry and exit procedures for the work area; use of wet methods; proper techniques for initial cleaning; use of negative pressure exhaust ventilation equipment; use of HEPA vacuums; proper clean-up and disposal of asbestos; work practices as they apply to encapsulation, enclosure, and repair; and use of glove bags and a demonstration of glove bag use;
- (5) Visit to an abatement site or other suitable building site, including on-site discussions of abatement design and building walk-through inspection. The visit shall include a discussion of the rationale for the concept of functional spaces during the walk-through;
- (6) Employee personal protective equipment including the classes and characteristics of respirator types; limitations of respirators;

- proper selection, inspection, donning, use, maintenance, and storage procedures; methods for field testing of the facepiece-to-face seal (positive and negative pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter the fit of the respirator (e.g., facial hair); components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing; and rules covering personal protective equipment;
- (7) Additional safety hazards including those encountered during abatement activities and how to deal with them, especially electrical hazards, heat stress, air contaminants other than asbestos, fire, and explosion hazards;
 - (8) Fiber aerodynamics and control including aerodynamic characteristics of asbestos fibers; the importance of proper containment barriers; the settling time for asbestos fibers; wet methods in abatement; aggressive air monitoring following abatement; and aggressive air movement and negative pressure exhaust ventilation as a clean up method;
 - (9) Designing abatement solutions including discussions of removal, enclosure, and encapsulation methods; and asbestos waste disposal;
 - (10) Final clearance process including a discussion of the need for a written sampling rationale for aggressive final air clearance; requirements of a complete visual inspection; and the relationship of the visual inspection to final air clearance;
 - (11) Budgeting and cost estimation including the development of a cost estimate; present costs of abatement versus future costs, including periodic surveillance and operations and

- maintenance; and setting priorities for abatement jobs to reduce cost;
- (12) Writing abatement specifications including preparation of and need for a written project design; means and methods specifications versus performance specifications; the design of abatement in occupied buildings; modification of guide specifications to a particular building; worker and building occupant health and medical considerations; replacement of asbestos-containing materials with non-asbestos substitutes; clearance of work area after abatement; and air monitoring for clearance, if required;
 - (13) Preparing abatement drawings including the significance and need for as-built drawings; the use of as-built drawings as base drawings; the use of inspection photographs and on-site reports; methods of preparing abatement drawings; diagramming containment barriers; relationship of drawings to design specifications; and particular problems related to abatement drawings;
 - (14) Contract preparation and administration;
 - (15) Legal liabilities and defenses including insurance considerations; bonding; hold-harmless clauses; use of abatement entities' liability insurance; and claims-made versus occurrence policies;
 - (16) Replacement of asbestos with asbestos-free substitutes;
 - (17) The role of other consultants including the development of technical specification sections by industrial hygienists or engineers; and the multi-disciplinary team approach to abatement design;
 - (18) Occupied buildings including special design procedures required in occupied buildings; education of occupants; extra monitoring recommendations; staging of work to minimize

- occupant exposure; and scheduling of renovation to minimize exposure;
- (19) Relevant federal, state, and local regulatory requirements, procedures, and standards, including:
 - (A) Requirements of TSCA title II;
 - (B) 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subparts A (General Provisions) and M (National Emission Standards for Asbestos);
 - (C) Chapters 12-145 and 12-206, HIOSH Asbestos Construction, General Industry and Respiratory Protection Standards;
 - (D) Chapter 501 (Asbestos Emission Standards) and 502 (Asbestos-Containing Materials in Schools) of Title 11;
 - (E) 40 CFR, Part 763, Asbestos Hazard Emergency Response Act (AHERA); and
 - (F) Applicable state and local rules, and differences between federal and state requirements, where they apply, and the effects on public and non-public schools or public or commercial buildings; and
 - (20) A review of key aspects of the training course.

(f) The initial training course for project monitors shall consist of a five-day or two-day training course that shall include lectures, demonstrations, at least six hours of hands-on training, course review, and at least one written, multiple choice examination. The instructor-to-student ratio shall be no less than 1 to 25 during the hands-on portion of the course. The department recommends the use of audiovisual materials to complement lectures, where appropriate. The two-day course shall only be taken by persons who hold current management planner or contractor/supervisor certification, and shall address topics that are not presented in the inspector, management planner or contractor/supervisor courses.

The project monitor training course shall adequately address the following topics:

- (1) Roles and responsibilities of the project monitor including definition and responsibilities of the project monitor; regulatory and specification compliance monitoring; air monitoring; conducting visual inspections; and final clearance monitoring;
- (2) Characteristics of asbestos and asbestos-containing materials including the typical uses of asbestos; physical appearance of asbestos; review of asbestos abatement and control techniques; presentation of the health effects of asbestos exposure, including routes of exposure, dose-response relationships and latency periods for asbestos-related diseases; and a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancers of other organs;
- (3) Federal and state asbestos requirements including:
 - (A) Requirements of TSCA title II;
 - (B) 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subparts A (General Provisions) and M (National Emission Standards for Asbestos);
 - (C) Chapters 12-145 and 12-206, HIOSH Asbestos Construction, General Industry and Respiratory Protection Standards;
 - (D) Chapters 501 and 502;
 - (E) 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA); and
 - (F) Applicable state and local rules, and differences between federal and state requirements, where they apply, and the effects on public and non-public schools or public or commercial buildings;
- (4) Understanding building construction and building systems including building

- construction basics; building physical plan layout; building systems (heat, ventilation, and air conditioning system, electrical, etc.); layout and organization, where asbestos is likely to be found on building systems; and renovations and the effect of asbestos abatement on building systems;
- (5) Asbestos abatement contracts, specifications, and drawings including basic provisions of the contract; relationships between principal parties; establishing chain of command; types of specifications, including means and methods, performance, and proprietary and nonproprietary; reading and interpreting records and abatement drawings; discussion of change orders; and common enforcement responsibilities and authority of a project monitor;
 - (6) Response actions and abatement practices including pre-work inspections; pre-work considerations such as pre-cleaning of the work area, removal of furniture, fixtures, and equipment; shutdown and modification of building systems; construction and maintenance of containment barriers; proper demarcation of work areas; work area entry and exit, hygiene practices; determining the effectiveness of air filtration equipment; techniques for minimizing fiber release such as wet methods and continuous cleaning; abatement methods other than removal; abatement area clean up procedures; waste transport and disposal procedures; and contingency planning for emergency response;
 - (7) Asbestos abatement equipment including typical equipment found on an abatement project such as air filtration devices, vacuum systems, and negative pressure differential monitoring; HEPA filtration units, theory of filtration, design and construction of HEPA filtration units,

qualitative and quantitative performance of HEPA filtration units, sizing the ventilation requirements, location of HEPA filtration units, qualitative and quantitative tests of containment barrier integrity; best available technology;

- (8) Personal protective equipment including proper selection of respiratory protection; classes and characteristics of respirator types, limitations of respirators; proper use of other safety equipment, protective clothing selection, use, and proper handling, hard and bump hats, safety shoes; breathing air systems, high pressure versus low pressure, testing for Grade D air, determining proper backup air volumes;
- (9) Air monitoring strategies including sampling equipment, sampling pumps (low versus high volume), flow regulating devices (critical and limiting orifices), use of fibrous aerosol monitors on abatement projects; sampling media, types of filters, types of cassettes, filter orientation, storage and shipment of filters; calibration techniques, primary calibration standards, secondary calibration standards, temperature and pressure effects, frequency of calibration, record-keeping and field work documentation, calculations; air sample analysis, techniques available and limitations of AHERA on their use, transmission electron microscopy (background to sample preparation and analysis, air sample conditions which prohibit analysis, EPA's recommended technique for analysis of final air clearance samples), phase contrast microscopy (background to sample preparation, and the AHERA limits on the use of phase contrast microscopy), what each technique measures; analytical methodologies, AHERA TEM protocol, NIOSH 7400, OSHA reference method (non

clearance), EPA recommendation for clearance (TEM); sampling strategies for clearance monitoring, types of air samples (personal breathing zone versus fixed-station area) sampling location and objectives (pre-abatement, during abatement, and clearance monitoring), number of samples to be collected, minimum and maximum air volumes, clearance monitoring (post-visual inspection) (number of samples required, selection of sampling locations, period of sampling, aggressive sampling, interpretations of sampling results, calculations), quality assurance; and special sampling problems, crawl spaces, acceptable samples for laboratory analysis, sampling in occupied buildings (barrier monitoring);

- (10) Safety and health issues other than asbestos including confined-space entry, electrical hazards, fire and explosion concerns, ladders and scaffolding, heat stress, air contaminants other than asbestos, fall hazards, and hazardous materials on abatement projects;
- (11) Conducting visual inspections including inspections during abatement, visual inspections using the ASTM E1368 document; conducting inspections for completeness of removal; discussion of "how clean is clean?";
- (12) Legal responsibilities and liabilities of project monitors including specification enforcement capabilities; regulatory enforcement; licensing; powers delegated to project monitors through contract documents;
- (13) Record-keeping and report writing including developing project logs and daily logs (what should be included, who sees them); final report preparation; record-keeping under federal regulations; and
- (14) Workshops (six hours spread over three days) including contracts, specifications, and

drawings. The workshop requirement may be fulfilled by the issuance of a set of contracts, specifications, and drawings and then being asked to answer questions and make recommendations to a project architect, engineer, or to the building owner based on given conditions and these documents; Air monitoring strategies and asbestos abatement equipment: This workshop could consist of simulated abatement sites for which sampling strategies would have to be developed (i.e., occupied buildings, industrial situations). Through demonstrations and exhibition, the project monitor may also be able to gain a better understanding of the function of various pieces of equipment used on abatement projects (air filtration units water filtration units, negative pressure monitoring devices, sampling pump calibration devices, etc.); Conducting visual inspections: This workshop could consist, ideally, of an interactive video in which a participant is "taken through" a work area and asked to make notes of what is seen. A series of questions will be asked which are designed to stimulate a person's recall of the area. This workshop could consist of a series of two or three videos with different site conditions and different degrees of cleanliness. [Eff] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(B))

§11-504-53 Refresher course contents and requirements. (a) Refresher training courses shall be specific to each discipline and each shall be not less than eight hours in length with the exception of the training course for inspectors. Refresher courses for inspectors shall be not less than four hours in length. Management planners shall attend the inspector

refresher course, plus an additional four-hour course for management planners.

(b) For each discipline, the refresher training course shall review and discuss changes in federal and state rules, developments in state-of-the-art procedures, a review of key aspects of the initial training course including the health effects of asbestos exposure, and a written, multiple choice examination.

(c) Successful completion of a refresher training course, and application to the department extends certification for one year from the date.

(d) Individuals whose certifications have expired within the previous twelve month period may attend a refresher course rather than retake the initial course.

This grace period extends twelve months from the date of expiration of the certification, but the person with the expired certification shall not perform work within that discipline during the grace period.

[Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(D))

§11-504-54 Examinations. (a) All persons who enroll in a training course shall be required to pass a closed book examination in written, multiple choice form with a minimum grade of seventy per cent correct in order to successfully complete the course. The examination shall be administered by the training provider. Each examination shall adequately cover the topics included in the training course for that discipline. Persons who pass the examination shall receive a document indicating that they have completed the course and passed the written exam in that specific discipline. A person receiving less than seventy percent correct on an exam may take not more than two similar written, multiple choice exams without retaking the course.

(b) The following are the requirements of examinations in each course:

- (1) Abatement workers - fifty multiple choice questions.
- (2) Contractors/supervisors - one hundred multiple choice questions;
- (3) Inspectors - fifty multiple choice questions;
- (4) Management planners - fifty multiple choice questions;
- (5) Project designers - one hundred multiple choice questions; and
- (6) Project monitors - one hundred multiple choice questions.

(c) Notwithstanding subsections (a) and (b), instructors may make the following accommodations for students in a worker training course only who have a language barrier or other problem taking the examination. The instructor may give the exam on a one-on-one basis, away from other students. The instructor may read the questions to the student, and then read each of the multiple choice answers. After the student chooses a response, the instructor may point to the choice that the student picked. At no time shall the instructor indicate the correct answer, coach or attempt to influence the student's choice. The training provider shall notify the department whenever they will be providing this service, to allow a representative of the department the chance to observe the exam. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(C))

§11-504-55 Course Certificates. The training provider shall issue certificates to students who successfully pass the examination at the end of an initial or refresher training course. The certificate shall include the following information:

- (1) A unique, identifying number for each student;
- (2) The name, address, and phone number of the training provider;
- (3) The student's name and social security number;

- (4) The name of the course for which that student has received certification;
- (5) The date(s) of the course and the examination;
- (6) The expiration date of the certificate, limited to one year from the date of the examination; and
- (7) A statement specifying that the training course meets all requirements of the Asbestos Model Accreditation Plan and that the training provider is accredited to provide training within the State of Hawaii.
[Eff _____](Auth: HRS §342P-41)
(Imp: 40 CFR Part 763, Appendix C(1)(C))

§11-504-56 Record-keeping requirements for training providers. (a) All providers of accredited asbestos training courses must comply with the following minimum record-keeping requirements:

- (1) A training provider must retain copies of all instructional materials used in the delivery of the classroom training such as student manuals, instructor notebooks, and handouts;
- (2) A training provider must retain copies of all instructors' resumes, and the documents approving each instructor issued by the department. Records must accurately identify the instructors that taught each particular course for each date that a course is offered;
- (3) A training provider must document that each person who receives a certificate for an initial or refresher training course has achieved a passing score on the examination. These records must clearly indicate the date upon which the exam was administered, the training course and discipline for which the exam was given, the name of the person who proctored the exam, a copy of the exam, and

the name and test score of each person taking the exam;

- (4) The training provider shall maintain records that document the names of all persons who have been awarded certificates, their certificate numbers, the disciplines for which certification was conferred, training and expiration dates, and the training location. Records will be kept in a manner that allows verification by telephone of the required information;
- (5) Training providers must verify current certification of the students in a refresher course, or expiration of their certification within the last twelve month period. Students should present their valid or expired certificate from the training provider, or the department-issued certification. Training providers offering the initial management planner training course must verify that the student holds a valid inspector certification at the time of course admission; and
- (6) (A) The training provider shall maintain all required records for a minimum of three years; and
(B) The training provider shall allow reasonable access to all of the records required by the Model Accreditation Plan, and any other records required by the department for the accreditation of asbestos training providers and courses, to both EPA and the department, on request.

(b) If a training provider ceases to conduct training, the training provider shall notify the department and allow the department to make copies of the training providers asbestos training records.

[Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(F))

§11-504-57 Instructor qualifications for training courses. (a) Each training course shall be taught by a department-approved instructor. Approval shall be based upon a review of the instructors academic credentials and/or field experience in asbestos abatement. The training provider must notify the department in advance whenever it changes course instructors.

(b) At a minimum, the instructor shall:

- (1) Have one year of experience performing the functions for the class being taught, and hold current certification in that discipline; or
- (2) Have six months of teaching experience and have held certification in the discipline being taught. [Eff _____] (Auth: HRS §342P-41) (Imp: 40 CFR Part 763, Appendix C(1)(E)(4))

DEPARTMENT OF HEALTH

Chapter 11-504, 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 11-504 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