

## 20-440-1. Definitions

**Licensure and Training Requirements for Persons Engaged in Asbestos Abatement and Consultation Services****20-440-1. Definitions**

As used in sections 20-440-1 through 20-440-9 of the Regulations of Connecticut State Agencies:

- (1) "Accredited" or "accreditation" when referring to an individual means that an individual has successfully completed the training requirements as set forth in section 20-440-7 of the regulations of Connecticut State Agencies or the refresher training requirements as set forth in section 20-441 of the regulations of Connecticut State Agencies, and has been issued a document of accreditation by the training provider;
- (2) "Approved training provider" means any person who satisfactorily demonstrates through application and submission of course agenda, faculty resumes, training manuals, examination materials, and equipment inventory that he meets the minimum requirements established by section 20-440-8 of the regulations of Connecticut State Agencies;
- (3) "Asbestos" means the asbestiform varieties of actinolite, amosite, anthophyllite, chrysotile, crocidolite and tremolite;
- (4) "Asbestos Abatement" means the removal, encapsulation, enclosure, renovation, repair, demolition or other disturbance of asbestos-containing materials, but does not include activities which are related to (A) the removal or repair of asbestos cement pipe and are performed by employees of a water company as defined in section 25-32a of the Connecticut General Statutes or (B) the removal of nonfriable asbestos-containing material found exterior to a building or structure other than material defined as regulated asbestos-containing materials in 40 CFR 61, the national emission standards for hazardous air pollutants, as amended from time to time;
- (5) "Asbestos abatement site supervisor" means any abatement worker employed by a licensed asbestos contractor who has been specifically trained as a supervisor in a training program approved by the department and who has been issued a certificate by the department;
- (6) "Asbestos abatement worker" means any employee of a licensed asbestos contractor who engages in asbestos abatement, has completed a training program approved by the department and has been issued a certificate by the department;
- (7) "Asbestos-containing material" or "ACM" means material composed of asbestos of any type and in an amount greater than one percent by weight, either alone or mixed with other fibrous or nonfibrous material;
- (8) "Asbestos consultant" means any person who engages in any activity directly involved with asbestos consultation services and who has been issued a certificate by the commissioner and a license by the department;
- (9) "Asbestos contractor" means any person engaged in asbestos abatement whose employees actually perform the asbestos abatement work and who has been issued a license by the commissioner;
- (10) "Asbestos consultation services" means the inspection or evaluation of a building for asbestos hazards, including, but not limited to, the development of asbestos abatement plans, site inspections, air monitoring and provisions of industrial hygiene services related to asbestos abatement;
- (11) "Certified" or "certification" when referring to an individual means that a certificate has been issued by the department under the provisions of sections 20-440-1 through 20-440-9 of the regulations of Connecticut State Agencies to an individual upon successful completion of an approved training or refresher training course, the receipt of a document of accreditation issued by the training provider, and the fulfillment of any other requirements of the department;
- (12) "Commissioner" means the commissioner of the department of public health;
- (13) "Department" means the department of public health;
- (14) "EPA" means the United States Environmental Protection Agency;

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- (15) "Facility" means the interior and exterior of any private or public building or structure including but not limited to those used for institutional, residential, including single family homes, commercial or industrial purposes and vessels while ashore or in dry dock;
- (16) "Facility owner" means the person or entity having title to the facility. For purposes of publicly owned property only, the facility owner shall be defined as the chief executive officer of the federal, state or municipal agency which owns or controls the use of the facility;
- (17) "Friable asbestos-containing material" means any material containing more than one percent asbestos 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;
- (18) "High efficiency-particulate air" or "HEPA" means a filtering system capable of trapping and retaining at least 99.97 percent of all monodispersed particles 0.3 micrometer in diameter or larger;
- (19) "HVAC" means heat, ventilation and air conditioning;
- (20) "Individual" means any human being;
- (21) "Inspector" means any licensed asbestos consultant who is certified as an inspector, and identifies, assesses the condition of, or collects bulk samples of suspected asbestos-containing material;
- (22) "License" means a document issued by the commissioner authorizing an asbestos contractor to engage in asbestos abatement work, or an asbestos consultant to engage in any activity directly involved with asbestos consultation services for which the asbestos consultant is certified. Licensure as an asbestos consultant shall authorize the licensee to engage in activities within the scope of the licensee's certification which includes inspector, management planner, project designer and project monitor;
- (23) "Management planner" means any licensed asbestos consultant who is certified as a management planner and who uses data gathered by asbestos inspectors to assess asbestos hazards, determine responses and develop implementation plans;
- (24) "NESHAP" asbestos regulations means the National Emission Standards for Hazardous Air Pollutants codified at 40 CFR 61, subpart M;
- (25) "Non-friable asbestos-containing material" means any material containing more than one percent asbestos that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure;
- (26) "OSHA" means the Occupational Safety and Health Administration of the United States Department of Labor;
- (27) "Person" means any individual, corporation, partnership, firm, association, sole proprietorship, the State of Connecticut or any of its political subdivisions, or any other entity;
- (28) "Project designer" means any licensed asbestos consultant who is certified as a project designer and who determines how asbestos abatement work shall be conducted and prepares the plans, designs, procedures, workscope or other substantive direction or criteria for abatement projects;
- (29) "Project monitor" means any licensed asbestos consultant who is certified as a project monitor and who functions as an on-site representative of the facility owner or other persons by over-seeing the activities of the asbestos abatement contractor;
- (30) "Response action" means a method, including removal, encapsulation, enclosure, repair and operation and maintenance that protects human health and the environment from ACM;
- (31) "Spot repair" means any asbestos-abatement activity involving not more than three linear feet or three square feet of asbestos-containing material; and
- (32) "TSCA" means Title II of the Toxic Substances Control Act, 15 U.S.C. § 2641 et seq. (Added effective February 9, 1989; Amended effective June 4, 1999, formerly 19a-332a-17; Amended effective April 5, 2001.)

**20-440-2. Licensure of asbestos contractors****20-440-2. Licensure of asbestos contractors**

- (a) No person shall provide services as an asbestos contractor in this state without first obtaining a license as an asbestos contractor issued by the commissioner. Applications for such license shall be made to the department on forms provided by it, and shall contain such information regarding the applicant's qualifications as the department requires in subsection (b) of this section.
- (b) The following provisions apply to the issuance of asbestos contractor licenses:
- (1) Application. Applicants for licensure as an asbestos contractor shall document that all employees of the asbestos contractor who perform asbestos abatement have passed a training course approved by the department as defined in subsection 19a332a-22(c) of these regulations, and shall submit to the department in addition to a completed application as prescribed by the commissioner, the following:
    - (A) A list of any occupational safety and health, asbestos related citations or notices of violation received within two years prior to the date of application, including the name of the issuing agency or department and final disposition of such citation or notice;
    - (B) a list of states in which the applicant held or currently holds a license, certification, accreditation, or approval for asbestos abatement work;
    - (C) written documentation that all asbestos abatement workers and asbestos abatement site supervisors to be engaged in asbestos abatement are or will be trained pursuant to the requirements of section 20-440-7 of the regulations of Connecticut State Agencies. Copies of current certificates issued by the department shall be submitted for each asbestos abatement worker and asbestos abatement site supervisor;
    - (D) a list of the names and legal addresses of current principal officers, partners or owners;
    - (E) a list of the names and legal addresses of any asbestos abatement entities in which the applicant's officers, partners or owners have a financial interest;
    - (F) a list of all names, acronyms, or other identifiers by which the applicant is known or under which the applicant does business or has done business;
    - (G) a listing of all of the equipment owned by the applicant at the time of application including information on the number of HEPA-filtered vacuum cleaners, HEPA-filtered portable ventilation systems, glove bags and other equipment necessary for asbestos abatement work;
    - (H) a list of at least three asbestos abatement projects previously completed by the applicant, where applicable, including: the name, address, and phone number of the facility owners of the projects listed; air monitoring data from the projects; and any notification letters or permits which were required; and
    - (I) demonstration of sufficient recordkeeping and documentation of activities related to asbestos abatement work covering: the recordkeeping requirements of section 19a-332a-4 of the regulations of Connecticut State Agencies, medical monitoring, employee training, equipment specifications, air monitoring data, permits, violations, and any legal actions.
  - (2) Fees. A certified or bank check, payable to the State of Connecticut, in the amount of five hundred dollars shall be submitted with the application.
  - (3) Renewal of Licenses. In accordance with section 19a-88 of the Connecticut General Statutes, each person holding a license as an asbestos contractor shall annually, during the month of his or her birth; or if the holder is not an individual, during such other month as the department shall choose, apply for renewal of such license to the department. The license shall be renewed provided the

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current license holder submits to the department a completed application establishing eligibility for renewal, on forms provided by the department and a certified or bank check in the amount of five hundred dollars. In accordance with section 19a-88(f) of the Connecticut General Statutes, any person who fails to comply with the provisions of this regulation shall be notified by the department that said license shall become void ninety days after the time for its renewal. Any such license shall become void upon the expiration of such ninety day period.

- (4) Reciprocity. The commissioner may issue a license under this section to any person who is licensed in another state under a law that provides standards that are equal to or higher than those of Connecticut, unless the application is otherwise subject to denial pursuant to section 19a-14(a)(6) of the Connecticut General Statutes.
- (c) Change of office or residence address. Whenever any licensed asbestos contractor changes his office or residence address, he shall, within thirty days thereafter, notify the department of his new office or residence address.  
(Effective February 9, 1989; Amended January 17, 1996; amended effective June 4, 1999.)

**20-440-3. Licensure and certification of asbestos consultants**

- (a) No individual shall provide services as an asbestos consultant in this state without first obtaining a license as an asbestos consultant issued by the department. Applications for such license shall be made to the department on forms provided by it, and shall contain such information regarding the applicant's qualifications and experience in asbestos-related consultations as the department may require as set forth in this section. Asbestos consultants shall perform their activities in compliance with generally recognized standards of practice of the asbestos consulting industry and asbestos professional associations. Certification in one or more disciplines shall be required for licensure as an asbestos consultant.
- (b) Certification shall be offered in the following disciplines of asbestos consultation: inspector, management planner, project designer and project monitor. Applicants shall apply for licensure and certification as asbestos consultants simultaneously in the same application. A licensee's activities shall be restricted to the scope of practice of each discipline in which the individual is also certified. However, providing all requirements are met, a licensed asbestos consultant who is certified as a management planner may also perform the duties of an inspector.
  - (1) Inspector
    - (A) Scope of Certification. Certification as an inspector authorizes a licensed asbestos consultant to review facilities' records and perform visual inspection or surveillance of facilities; to identify, document or inventory materials suspected of containing asbestos; to collect bulk samples for asbestos analysis according to procedures established by applicable state or federal laws and regulations; and to provide direct supervision to non-certified individuals collecting bulk samples of materials suspected of containing asbestos. Inspectors shall apply current concepts and knowledge of best available technology to evaluate the conditions and accessibility of ACM.
    - (B) Qualifications. Applicants shall hold either an associate's or a bachelor's degree from a regionally accredited institution in engineering, architecture, industrial hygiene or an environmental science degree as determined by the commissioner to be closely related, including but not limited to environmental health, biology, and earth science. Applicants shall have a minimum of six months employment experience in an occupation determined by the commissioner to be closely related to that of an inspector or two months of field experience under the direct supervision of a licensed inspector or licensed management planner.

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Applicants shall have successfully completed the required training as set forth in subdivision 20-440-7(c)(4) or refresher training requirements outlined in section 20-441 of the regulations of Connecticut State Agencies.

- (C) Exempted activities. The following activities are exempted from the requirement of certification as an inspector:
  - (i) Periodic surveillance. A person does not need to be certified as an inspector to perform visual observations of an area that previously has been identified as containing interior ACM or that previously has been assigned to contain interior ACM and that is being inspected to identify changes in the physical condition of that interior ACM. However, no touching or taking of samples is permitted without a certificate as an inspector.
  - (ii) Compliance inspections. An authorized person from a federal or state agency need not be certified as an inspector to perform a compliance inspection the primary purpose of which is to determine adherence to applicable statutes or regulations and not to locate, assess or remedy the condition of ACM.
  - (iii) Visual inspections. A person who conducts a visual inspection to determine whether a response action is complete need not be certified as an inspector, but shall be certified as a project monitor.
- (2) Management planner
  - (A) Scope of Certification. Certification as a management planner authorizes a licensed asbestos consultant to utilize information developed from facility inspections to assess potential hazards of ACM; to develop abatement response actions, operations and maintenance plans; to select and recommend abatement actions; and, to perform duties within the scope of certification as an inspector.
  - (B) Qualifications. Applicants shall hold a bachelor's degree from a regionally accredited institution in engineering, architecture, industrial hygiene or an environmental science degree as determined by the commissioner to be closely related, including but not limited to environmental health, biology, and earth science. Applicants shall have a minimum of six months experience in asbestos abatement, including experience in asbestos management or three months of field experience under the supervision of a licensed asbestos consultant certified as a management planner. Applicants shall have successfully completed training requirements as set forth in subdivision 20-440-7(c)(5) of the regulations of Connecticut State Agencies and be certified as an Inspector.
- (3) Project Designer
  - (A) Scope of Certification. Certification as a project designer authorizes a licensed asbestos consultant to apply knowledge of facility construction, design and development of abatement projects; abatement specifications; bidding documents; architectural drawings; and, schematic representations of material locations. Project designers may also determine how asbestos abatement should be conducted.
  - (B) Qualifications. Applicants shall hold a bachelor's degree from a regionally accredited institution in engineering, architecture, industrial hygiene or an environmental science degree as determined by the commissioner to be closely related, including but not limited to environmental health, biology, and earth science. Applicants shall have a minimum of one year experience in asbestos abatement, including experience in asbestos abatement design or six months field experience under the supervision of a licensed asbestos consultant certified as a project designer.

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**20-440-4. Applications for licensure and certification as an asbestos consultant**

Applicants shall have successfully completed the training requirements as set forth in subdivision 20-440-7(c)(6) of the regulations of Connecticut State Agencies.

- (4) Project Monitor
  - (A) Scope of Certification. Certification as a project monitor authorizes a licensed asbestos consultant to function in the capacity of on-site representative of the facility owner or other persons, interpret project specifications or abatement management plans, monitor and evaluate contractor or employee compliance with applicable regulations or specifications and ensure that abatement projects are properly conducted and completed. The project monitor shall not also function as the asbestos contractor or as an employee of the asbestos contractor on the same asbestos abatement project for which he is the project monitor.
  - (B) Qualifications. Applicants shall hold either an associate's or a bachelor's degree from a regionally accredited institution in engineering, architecture, industrial hygiene or an environmental science degree as determined by the commissioner to be closely related, including but not limited to environmental health, biology, and earth science. Applicants shall have a minimum of one year experience in asbestos abatement, including experience in asbestos abatement project monitoring or six months field experience under the supervision of a licensed asbestos consultant certified as a project monitor. Applicants shall have successfully completed the training requirements as set forth in subdivision 20-440-7(c)(7) of the regulations of Connecticut State Agencies.

(Effective February 9, 1989; amended effective June 4, 1999.)

**20-440-4. Applications for licensure and certification as an asbestos consultant**

- (a) Applicants shall make written application for licensure and certification as an asbestos consultant to the commissioner using forms prescribed by the commissioner. Such application shall, as a minimum, require the following:
  - (1) Evidence that the applicant has successfully completed the training requirements as set forth in subsection 20-440-7(c) of the regulations of Connecticut State Agencies. Evidence shall be in the form of legible copies of the original and current documents of accreditation in the appropriate discipline;
  - (2) Documentation demonstrating that the applicant has the required educational background and employment experience; and
  - (3) Payment of a licensure fee.
- (b) Fees. A certified or bank check, payable to the State of Connecticut, in the amount of two hundred dollars shall be submitted with the application for each discipline in which certification is also being sought.
- (c) Renewal of Licenses. In accordance with section 19a-88 of the Connecticut General Statutes, each individual holding a license as an asbestos consultant shall annually, during the month of his or her birth apply for renewal of such license to the department. The license shall be renewed provided the current license holder submits to the department a completed application establishing eligibility for renewal, on forms provided by the department and a certified or bank check in the amount of two hundred dollars. In accordance with section 19a-88(f) of the Connecticut General Statutes, any person who fails to comply with the provisions of this regulation shall be notified by the department that said license shall become void ninety days after the time for its renewal. Any such license shall become void upon the expiration of such ninety day period.
- (d) Renewal of certification. Certification expires simultaneously with accreditation and shall lapse one year from the date of examination of training course or refresher training

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**20-440-5. Certification and employment as an asbestos abatement site supervisor or as an asbestos abatement worker**

- course. Any individual either seeking licensure or possessing licensure as an asbestos consultant shall maintain current certification in the appropriate discipline.
- (e) Reciprocity. The commissioner may issue a license under this section to any person who is licensed in another state under a law that provides standards that are equal to or higher than those of Connecticut, unless the application is otherwise subject to denial pursuant to section 19a-14(a)(6) of the Connecticut General Statutes.
  - (f) Exemption. Notwithstanding the provisions of section 20-440-3 of the regulations of Connecticut State Agencies, an individual who between July 1, 1985 and November 1, 1994, has been employed for a minimum of two years as an asbestos consultant may be licensed as an asbestos consultant without a bachelor's degree, provided the applicant has met all other requirements of this section.
  - (g) Asbestos consultants shall be in physical possession of initial and current license, certification and training accreditation at a job site when performing work requiring licensure, certification and accreditation.
  - (h) Change of office or residence address. Whenever any licensed asbestos abatement consultant changes his office or residence address, he shall, within thirty days thereafter, notify the department of his new office or residence address.  
(Effective February 9, 1989; amended January 17, 1996; amended effective June 4, 1999.)

**20-440-5. Certification and employment as an asbestos abatement site supervisor or as an asbestos abatement worker**

- (a) No asbestos contractor or asbestos consultant shall employ or allow an individual to work as an asbestos abatement worker or asbestos abatement site supervisor unless such individual has:
  - (1) provided copies of the initial and most recent documents of accreditation; and
  - (2) provided a copy of the current certificate issued by the department.
- (b) No individual shall provide services as an asbestos abatement site supervisor or as an asbestos abatement worker in this state without a certification to do so issued by the department. Applications for such certification shall be made to the department on forms provided by it, and shall contain such information regarding the applicant's qualifications as required in subsection (d)(1) of this section.
- (c) Asbestos abatement, except for spot repairs, shall be performed by a certified asbestos abatement site supervisor or a certified asbestos abatement worker. Asbestos abatement site supervisors and asbestos abatement workers shall have initial and current certificates at the location where they are conducting work. Certification is valid for one year and expires on the same date as that of accreditation.
- (d) The following provisions shall apply to the issuance of certificates to asbestos abatement site supervisors and asbestos abatement workers:
  - (1) Applicants shall make written application to the department using forms prescribed by the commissioner. Such application shall, as a minimum, require the following:
    - (A) Evidence that the applicant has successfully completed the training requirements as set forth in subsection 20-440-7(c) of the regulations of Connecticut State Agencies. Evidence shall be in the form of legible facsimiles of the original and when appropriate, current documents of accreditation in the appropriate discipline;
    - (B) A list of states in which the applicant currently holds or has held a license, certification, accreditation or approval for asbestos abatement work;
    - (C) The applicant's current residence address; and,
    - (D) A list of names and legal addresses of all asbestos contractors and asbestos consultants for whom the applicant has performed work the last three years.

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**20-440-6. Denial of eligibility of applicants; Disciplinary action**

- (2) Scope of certification of an asbestos abatement site supervisor. Certification as an asbestos abatement site supervisor authorizes an individual to supervise any of the following activities with respect to friable ACM at a facility:
  - (A) a response action other than a spot repair activity;
  - (B) a maintenance activity that disturbs friable ACM other than a spot repair activity; and
  - (C) a response action for a major fiber release episode.
- (3) Scope of certification of an asbestos abatement worker. Certification as an asbestos abatement worker authorizes an individual to carry out any of the following activities with respect to friable ACM at a facility:
  - (A) a response action other than a spot repair activity;
  - (B) a maintenance activity that disturbs friable ACM other than a spot repair activity; and
  - (C) a response action for a major fiber release episode.
- (e) Reciprocity. The commissioner may issue a certificate under this section without examination to any individual who is certified in another state under a law that provides standards equal to or higher than those of Connecticut and who is not subject to any unresolved complaints or pending disciplinary actions, unless the application is otherwise subject to denial pursuant to section 19a-14(a)(6) of the Connecticut General Statutes.
- (f) Change of residence address. Whenever any certified asbestos abatement supervisor, or certified asbestos abatement worker his residence address, he shall, within thirty days thereafter, notify the department of his new residence address.  
(Effective February 9, 1989; amended effective June 4, 1999.)

**20-440-6. Denial of eligibility of applicants; Disciplinary action**

- (a) Denial of eligibility of applicant for licensure, or certification, or renewal. The department may deny the eligibility of any applicant for licensure or certification or for the renewal of a license or certificate in accordance with the provisions of section 19a-14(a)(6) of the Connecticut General Statutes.
- (b) Disciplinary action by the department. Following notice and a hearing held in accordance with the provisions of Chapter 54 of the Connecticut General Statutes, the department may take any action permitted by sections 19a-17 and 19a-332e of the Connecticut General Statutes, against any person issued a license or certificate under sections 20-440-1 through 20-440-9 of the Regulations of Connecticut State Agencies for conduct including but not limited to:
  - (1) Violation of the provisions of section 20-440-1 through 20-440-9 of the Regulations of Connecticut State Agencies;
  - (2) violation of any other regulations and statutes governing asbestos abatement or licensure;
  - (3) violation of the standard of care of the profession;
  - (4) negligence in performing activities that require licensure or certification;
  - (5) aiding or abetting persons who engage in activities that require licensure or certification, but are not licensed or certified; and,
  - (6) fraud and deceit in the course of professional services or activities.
 (Effective June 4, 1999.)

**20-440-7. Training requirements**

- (a) General. Training programs serving to qualify asbestos abatement site supervisors or asbestos abatement workers for certification and employment and asbestos consultants for certification and licensure shall be subject to approval by the department.
- (b) Approved training
  - (1) Training available in other states may be acceptable to the department if the training provider successfully demonstrates that it has met the minimum requirements for training providers established by section 20-440-8 of the



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regulations of Connecticut State Agencies or that the training provider is an approved provider of training for asbestos in the state in which it is located. If the state in which the training provider is located does not have a regulatory program which approves, certifies or accredits asbestos training programs, the training provider shall be an EPA accredited training facility under the Federal Asbestos Hazard Emergency Response Act of 1986 as amended from time to time.

- (2) Training courses not approved by the Commissioner shall not substitute for approved courses and shall not satisfy the requirements for approved training.
- (c) Training curriculum. Any training course required for certification or licensure as required in sections 20-440-1 through 20-440-5, of the regulations of Connecticut State Agencies shall be conducted by an approved training provider and, as a minimum, meet the following criteria of duration, subject matter and examination.
  - (1) General
    - (A) Courses of instruction required for each type of certificate and license identified in sections 20-440-1 through 20-440-5 of the regulations of Connecticut State Agencies shall focus specifically on the activities authorized by each type of license or certificate. The subjects of instruction which a person shall receive to meet the training requirements shall be presented through a combination of lectures, demonstrations, and field trips or hands-on practice, as appropriate.
    - (B) A training course shall provide instruction in the curriculum described in this subsection to be approved.
    - (C) Courses requiring hands-on training shall be presented in an environment suitable to permit participants to have actual experience performing tasks associated with asbestos abatement. Demonstrations that do not involve individual participation shall not be accepted as hands-on training. Hands-on training sessions shall maintain a student to instructor ratio not greater than fifteen to one (1).
    - (D) One training day shall consist of eight hours of actual instruction, hands-on training and field trips or combination thereof, including lunch and breaks.
  - (2) Asbestos abatement site supervisors. An individual seeking certification and employment as an asbestos abatement site supervisor shall successfully complete an approved five day training course that shall include lectures, demonstrations, at least fourteen hours of hands-on training, individual respirator fit testing, course review, and a written examination. Successful completion of the training shall be demonstrated by achieving a score of at least seventy percent on the examination. The examination shall be comprised of one hundred multiple choice questions. The course shall address the following topics:
    - (A) physical characteristics of asbestos and ACM: identification of asbestos, aerodynamic characteristics, typical uses, physical appearance, a review of hazard assessment considerations, and a summary of abatement control options;
    - (B) potential health effects related to asbestos exposure: 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; latency period for disease and a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancers of other organs;
    - (C) employee personal protective equipment: classes and characteristics of respirator types; limitations of respirators; selection, inspection, donning, use, maintenance, and storage procedures for respirators; methods for field testing of the facepiece-to-face seal including positive and negative pressure fit checks; qualitative and quantitative fit testing procedures;

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- variability between field and laboratory protection factors; factors that alter respirator fit (e.g., facial hair); the 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;
- (D) state-of-the-art work practices: proper work practices for asbestos abatement activities including descriptions of proper construction and maintenance of barriers and decontamination enclosure systems; positioning of warning signs; electrical and ventilation system lock-out; proper working techniques for minimizing fiber release; use of wet methods; use of negative pressure exhaust ventilation equipment; use of HEPA vacuums and proper clean-up and disposal procedures; work practices for removal, encapsulation, enclosures, and repair of ACM; emergency procedures for unplanned releases; potential exposure situations; transport and disposal procedures; recommended and prohibited work practices; discussion of new asbestos abatement-related techniques and methodologies shall be included;
  - (E) personal hygiene: entry and exit procedures for the work area; use of showers; avoidance of eating, drinking, smoking, and chewing gum or tobacco in the work area; potential exposures, such as family exposure, shall also be included;
  - (F) additional safety hazards: hazards encountered during 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;
  - (G) medical monitoring: OSHA and EPA worker protection rule requirements for physical examinations including a pulmonary function test, chest x-rays and a medical history for each employee;
  - (H) air monitoring: procedures to determine airborne concentrations of asbestos fibers, including a description of aggressive air sampling, sampling equipment and methods, reasons for air monitoring, types of samples, and interpretation of results, especially from analysis performed by polarized light, phase-contrast, and electron microscopy analyses;
  - (I) relevant federal, state and local regulatory requirements: procedures and standards including but not necessarily limited to:
    - (i) Requirements of TSCA, Title II;
    - (ii) 40 CFR Part 61, NESHAP, Subparts A, General Provisions, and M, National Emission Standards for Asbestos;
    - (iii) OSHA respirator standard, 29 CFR 1910.134.
    - (iv) OSHA Asbestos Construction Standard, 29 CFR; and
    - (v) EPA Worker Protection Rule, 40 CFR Part 763, Subpart G.
  - (J) Respiratory protection programs and medical monitoring programs;
  - (K) insurance and liability issues: contractor issues; worker's compensation coverage and exclusions; third-party liabilities and defenses; insurance coverage and exclusions;
  - (L) recordkeeping for asbestos abatement projects: records required by federal, state and local regulations; records recommended for legal and insurance purposes;
  - (M) supervisory techniques for asbestos abatement activities: supervisory practices to enforce and reinforce the required work practices and discourage unsafe work practices;
  - (N) contract specifications: discussion of key elements that are included in contract specifications;
  - (O) course reviews: a review of key aspects of the training course.

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- (3) Asbestos Abatement Workers. An individual seeking certification and employment as an asbestos abatement worker shall successfully complete at least a four day approved training course as outlined in this subdivision or the course required under subsection (c)(2) of this section. The worker training course shall include lectures, demonstrations, at least fourteen hours of hands-on training, individual respirator fit testing, course review, and a written examination. Successful completion of the course shall be demonstrated by achieving a score of at least seventy percent on the examination. The examination shall be comprised of fifty multiple choice questions. The course shall address the following topics:
- (A) physical characteristics of asbestos: identification of asbestos and its aerodynamic characteristics, typical uses, and physical appearance, and a summary of abatement control options;
  - (B) potential health effects related to asbestos exposure: the nature of asbestos-related diseases; routes of exposure; dose-response relationships and the lack of a safe exposure level; synergistic effect between cigarette smoking and asbestos exposure; latency period for related diseases; and a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancers of other organs;
  - (C) employee personal protective equipment: 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 including positive and negative pressure fit checks; qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors; factors that alter respirator fit, e.g., facial hair; the 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;
  - (D) state-of-the-art work practices: proper work practices for asbestos abatement activities, including descriptions of proper construction and maintenance of barriers and decontamination enclosure systems; positioning of warning signs; electrical and ventilation system lock-out; proper working techniques for minimizing fiber release; use of wet methods; use of negative pressure exhaust ventilation equipment; use of 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;
  - (E) personal hygiene: entry and exit procedures for the work area; use of showers; avoidance of eating, drinking, smoking, and chewing gum or tobacco in the work area; and potential exposures, such as family exposure;
  - (F) additional safety hazards: hazards encountered during 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;
  - (G) medical monitoring: OSHA and EPA worker protection rule requirements for physical examinations, including a pulmonary function test, chest x-rays and a medical history for each employee;
  - (H) air monitoring : procedures to determine airborne concentrations of asbestos fibers, focusing on how personal air sampling is performed and the reasons for it;

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- (I) relevant federal, state and local regulatory requirements, procedures, and standards: particular attention directed at relevant EPA, OSHA, and state regulations concerning asbestos abatement workers;
  - (J) establishment of respiratory protection programs; and
  - (K) course review: a review of key aspects of the training course.
- (4) Inspector. An individual seeking certification in this discipline shall Successfully complete an approved course of training consisting of at least three days training, as outlined in this subdivision. The inspector training course shall include lectures, demonstrations, at least four hours of hands-on training, individual respirator fit testing, course review and a written examination. Successful completion of the course shall be demonstrated by achieving a score of at least seventy percent on the examination. The examination shall be comprised of fifty multiple choice questions. Courses shall include instruction on:
- (A) Background information on asbestos: identification of asbestos, and examples and discussion of the uses and location of asbestos in facilities and physical appearance of asbestos;
  - (B) potential health effects related to asbestos exposure: 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 the asbestos exposure to asbestosis, lung cancer, mesothelioma and cancer of other organs;
  - (C) the functions, qualifications and role of inspectors: discussions of prior experience and qualifications for inspectors and management planners; discussions of the functions of an inspector as compared to those of a management planner and discussion of inspection process including inventory of acm and physical assessment;
  - (D) legal liabilities and defenses: 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 and bonding and the relationship of insurance availability to bond availability;
  - (E) understanding facility systems: the interrelationship between facility systems, including an overview of common facility physical plan layouts; HVAC system types, physical organization and where asbestos is found on hvac components; facility 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;
  - (F) occupant relations: notifying employee organizations about the inspection; signs to warn facility occupants; tact in dealing with occupants and the press; scheduling of inspections to minimize disruption; and education of facility occupants about actions being taken;
  - (G) pre-inspection planning and review of previous inspection records: scheduling the inspection and obtaining access; facility record review; identification of probable homogeneous areas from blueprints or as-built drawings; consultation with maintenance or facility personnel; review of previous inspection, sampling and abatement records of a facility and the role of the inspector in exclusions for previously performed inspections;
  - (H) inspecting for friable and non-friable ACM and assessing the condition of friable ACM: procedures to follow in conducting visual inspections for friable and non-friable ACM; types of building materials that may contain asbestos; touching materials to determine friability; open return air plenums and their importance in hvac systems; assessing damage,

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- significant damage, potential damage, and potential significant damage; amount of suspected ACM, both in total quantity and as a percentage of the total area; type of damage; accessibility; material's potential for disturbance; known or suspected causes of damage or significant damage and deterioration as assessment factors;
- (I) bulk sampling and documentation of asbestos in schools and public and commercial buildings: detailed discussion of "A Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a October 1985)"; techniques to ensure sampling in a randomly distributed manner for non-friable surfacing materials; sampling of non-friable materials; techniques for bulk sampling; inspector's sampling and repair equipment; 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; quality control and quality assurance procedures;
  - (J) inspector respiratory protection and personal protective equipment: 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 facepiece-to-face seal including positive and negative pressure fit checks; qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit, e.g., facial hair; the components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing;
  - (K) recordkeeping and writing the inspection report: labeling of samples and keying sample identification to sampling location; recommendations on sample labeling; detailing of ACM inventory; photographs of selected sampling areas and examples of ACM condition; and information required for inclusion in the management plan by TSCA title ii section 203 (i)(1);
  - (L) regulatory review : the following topics shall be covered: national emission standard for hazardous air pollutants, neshap; 40 CFR Part 61, Subparts A and M; EPA worker protection rule found at 40 CFR part 763, subpart G; OSHA asbestos construction standard found at 29 CFR 1926.1101; OSHA respirator requirements found at 29 CFR 1910.134; the friable asbestos in schools rule found at 40 CFR part 763, subpart F; applicable state and local regulations, and differences between federal and state requirements where they apply, and the effects, if any, on public and non-public schools or commercial or public facilities;
  - (M) field trip: a field exercise including a walk-through inspection; on-site discussion on information gathering and determination of sampling locations; on-site practice in physical assessment and classroom discussion of field exercise;
  - (N) course review: a review of key aspects of the training course.
- (5) Management planners: an individual seeking certification in this discipline shall successfully complete the training program as described in subdivision (c)(4) of this section, and successfully complete a two day management planner training course consisting of lectures, demonstrations, course review and a written examination. Successful completion of the course shall be demonstrated by achieving a score of at least seventy percent on the examination. The examination shall be comprised of fifty multiple choice questions. The course shall address but not be limited to the following topics:

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- (A) Course overview: the role and responsibilities of the management planner; operations and maintenance programs; setting work priorities; and protection of facility occupants;
- (B) evaluation and interpretation of survey results: review of TSCA Title II requirements for inspection and management plans for school buildings as given in section 203 (i)(I) TSCA Title II interpretation of field data and laboratory results and comparison of field inspector's data sheet with laboratory results and site survey;
- (C) hazard assessment: amplification of the difference between physical assessment and hazard assessment; the role of the management planner in hazard assessment; explanation of significant damage, damage, potential damage, and potential significant damage; use of a description decision tree/code for assessment of ACM; assessment of friable ACM and relationship of accessibility, vibration sources, use of adjoining space, and air plenums and other factors to hazard assessment;
- (D) legal implications: liability; insurance issues specific to planners; liabilities associated with interim control measures, in-house maintenance, repair, and removal and use of results from previously performed inspections;
- (E) evaluation and selection of control options: 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 facilities; and the need for containment barriers and decontamination in response actions;
- (F) role of other professionals: 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 team approach to design of high-quality job specifications;
- (G) developing an operations and maintenance plan: purpose of the plan; 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 ACM; scheduling operation and maintenance for off-hours; rescheduling or canceling renovations in areas with ACM; boiler room maintenance; disposal of ACM; in-house procedures for ACM-bridging and penetrating encapsulants; pipe fittings; metal sleeves; polyvinylchloride, canvas and wet wraps; muslin with straps; fiber mesh cloth; mineral wool, and insulating cement; discussion of employee protection programs and staff training; case study in developing an operation and maintenance plan to include the development, implementation process and problems that have been experienced;
- (H) regulatory review: focusing on the OSHA Asbestos Construction Standard found at 29 CFR 1926.1001; NESHAP requirements, found at 40 CFR Part 61 Subparts A, General Provisions, and M, National Emission Standards for Asbestos, EPA Worker Protection Rule found at 40 CFR Part 763, Subpart G; TSCA Title II; applicable state and local regulations, and differences in federal and state requirements - where they apply and the effects, if any, on public and non-public schools;
- (I) recordkeeping for the management planner: use of field inspector's data sheet along with laboratory results; on-going recordkeeping as a means to track asbestos disturbance; and procedures for recordkeeping;

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- (J) assembling and submitting the management plan: plan requirements for schools in TSCA Title II Section 203 (i) (1); the management plan as a planning tool;
  - (K) financing abatement actions: economic analysis and cost estimates; development of cost estimates; present costs of abatement versus future operation and maintenance costs; Asbestos School Hazard Abatement Act grants and loans;
  - (L) course review: a review of key aspects of the training course.
- (6) Project designers: An individual seeking certification in this discipline shall successfully complete a course of instruction of three days duration consisting of lectures, demonstrations, individual respirator fit testing, a field trip, course review and written examination. Successful completion of the course shall be demonstrated by achieving a score of at least seventy percent on the examination. The examination shall be comprised of one hundred multiple choice questions. The course shall address the following topics:
- (A) Background information on asbestos: identification of asbestos; examples and discussion of the uses and locations of asbestos in facilities and physical appearance of asbestos;
  - (B) potential health effects related to asbestos exposure: 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 cancer of other organs;
  - (C) overview of abatement construction projects : abatement as a portion of a renovation project and OSHA requirements, 29 CFR 1926.1101, for notification of other contractors on a multi-employersite.
  - (D) Safety system design specification: 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;
  - (E) field trip: a visit to an abatement site or other suitable facility site, including onsite discussion of abatement design, and facility walk-through inspection including a discussion of rationale for the concept of functional spaces during the walk-through and a discussion following the walk-through;
  - (F) employee personal protective equipment: 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 including positive and negative pressure fit checks; qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors; factors that alter respirator fit, e.g., facial hair; components of 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;

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- (G) additional safety hazards: hazards encountered during abatement activities and how to deal with them, including electrical hazards, heat stress, air contaminants other than asbestos, fire and explosion hazards;
  - (H) fiber aerodynamics and control: aerodynamic characteristics of asbestos fibers; importance of proper containment barriers; settling time for asbestos fibers; wet methods in abatement; aggressive air monitoring following abatement; aggressive air movement and negative-pressure exhaust ventilation as a clean-up method;
  - (I) designing abatement solutions: discussions of removal, enclosure, and encapsulation methods; asbestos waste disposal;
  - (J) final clearance process: 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;
  - (K) budgeting and cost estimating: development of cost estimates; present costs of abatement versus future operation, and maintenance costs; and setting priorities for abatement jobs to reduce cost;
  - (L) writing abatement specifications: preparation of and need for a written project design; means and methods specifications versus performance specifications; design of abatement in occupied facilities; modification of guide specifications for a particular facility; worker and facility occupant health and medical considerations; replacement of ACM with non-asbestos substitutes; clearance of work area after abatement; and air monitoring for clearance;
  - (M) preparing abatement drawings: significance and need for drawings; use of as-built drawings as base drawings; 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;
  - (N) contract preparation and administration;
  - (O) legal liabilities and defenses: insurance considerations; bonding; hold-harmless clauses; use of abatement contractor's liability insurance; and claims-made versus occurrence policies;
  - (P) replacement: replacement of asbestos with asbestos-free substitutes;
  - (Q) role of other consultants: development of technical specification sections by industrial hygienists or engineers; the multidisciplinary team approach to abatement design;
  - (R) occupied facilities: special design procedures required in occupied facilities; education of occupants; extra monitoring recommendations; staging of work to minimize occupant exposure; and scheduling of renovation to minimize exposure;
  - (S) relevant federal, state and local regulatory requirements, procedures and standards including but not limited to:
    - (i) TSCA, Title II.
    - (ii) 40 CFR Part 61, NESHAP, Subparts A, General Provisions, and M, National Emission Standard for Asbestos.
    - (iii) OSHA Respirator Standard, 29 CFR 1910.134.
    - (iv) EPA Worker Protection Rule, 40 CFR Part 763, Subpart G.
    - (v) OSHA Asbestos Construction Standard, 29 CFR 1926.1101.
    - (vi) OSHA Hazard Communication Standard, 29 CFR 1910.1200.
  - (T) course review: a review of key aspects of the training course.
- (7) Project monitor. An individual seeking certification in this discipline shall successfully complete an approved course of training consisting of at least five days training, as outlined in subdivision (c)(2) of this section. On and after one year following the effective date of these regulations, an individual seeking

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certification in this discipline shall have successfully completed an approved course of training consisting of at least five days training, as outlined in this subdivision. The project monitor training course shall include lectures, demonstrations, at least six hours of hands-on training, individual respirator fit-testing, course review and a written examination. Successful completion of the training shall be demonstrated by achieving a score of at least seventy percent on the examination. The examination shall be comprised of one hundred multiple choice questions. The course shall address the following topics:

- (A) roles and responsibilities of the project monitor: definition and responsibilities of the project monitor, including regulatory/specification compliance monitoring, air monitoring, conducting visual inspections and final clearance monitoring;
- (B) characteristics of asbestos and asbestos-containing materials: 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;
- (C) federal asbestos regulations: overview of pertinent EPA regulations, including: NESHAP, 40 CFR Part 61, subparts A and M; AHERA, 40 CFR part 763, Subpart E and the EPA worker protection rule, 40 CFR part 763, subpart G; overview of pertinent OSHA regulations, including: construction industry standard for asbestos, 29 CFR 1926.1101; respirator standard, 29 CFR 1910.134 and hazard communication standard, 29 CFR 1910.1200 applicable state and local asbestos regulations and regulatory interrelationships;
- (D) understanding facility construction and facility systems: facility construction basics and facility physical plan layout; understanding facility systems, HVAC, electrical, etc.; layout and organization, where asbestos is likely to be found on facility systems; renovations and the effect of asbestos abatement on facility systems;
- (E) asbestos abatement contracts, specifications and drawings: basic provisions of the contract; relationships between principle parties and 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; common enforcement responsibilities and authority of project monitor;
- (F) response actions and abatement practices: pre-work inspections; pre-work considerations, precleaning of the work area, removal of furniture, fixtures and equipment; shutdown/modification of facility systems; construction and maintenance of containment barriers and proper demarcation of work areas; work area entry and exit and hygiene practices; determining the effectiveness of air filtration equipment; techniques for minimizing fiber release, 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;
- (G) asbestos abatement equipment: typical equipment found on an abatement project; air filtration devices, vacuum systems and negative pressure differential monitoring; HEPA filtration units, theory of filtration, design and construction of 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 and best available technology;

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- (H) personal protective equipment: 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 or bump hats, safety shoes, breathing air systems, high pressure versus low pressure, testing for Grade D air and determining proper backup air volumes;
- (I) air monitoring strategies: sampling equipment, sampling pumps low versus high volume pumps; flow regulating devices including 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, recordkeeping and field work documentation and calculations; air sample analysis, techniques available and limitations of ahera on their use, transmission electron microscopy, e.g. 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 AHERA's limits on the use of phase contrast microscopy; and what each air sampling technique measures; analytical methodologies, AHERA TEM protocol, NIOSH 7400, OSHA reference method, non clearance, and EPA recommendation TEM for clearance; sampling strategies for clearance monitoring, types of air samples including personal breathing zone versus fixed-station area, sampling location and objectives to include preabatement, during abatement and clearance monitoring; number of samples to be collected, minimum and maximum air volumes; clearance monitoring to include post-visual-inspection, e.g. number of samples required, selection of sampling locations, period of sampling, aggressive sampling, interpretations of sampling results and calculations, and quality assurance; special sampling problems, crawl spaces, acceptable samples for laboratory analysis and sampling in occupied facilities such as barrier monitoring;
- (J) safety and health issues other than asbestos: 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;
- (K) conducting visual inspections: inspections during abatement, visual inspections using the ASTM E1368 document; conducting inspections for completeness of removal and discussion of "how clean is clean?"
- (L) legal responsibilities and liabilities of project monitors: specification enforcement capabilities; regulatory enforcement; licensing and powers delegated to project monitors through contract documents;
- (M) recordkeeping and report writing: developing project logs and daily logs; what should be included and who sees them; final report preparation and recordkeeping under federal regulations;
- (N) workshops - six hours spread over three days:
  - (i) Workshop A - contracts, specifications and drawings. Participant shall be issued a set of contracts, specifications, and drawings and then asked to answer questions and make recommendations to a project architect, engineer or to the building owner based on given conditions and these documents.
  - (ii) Workshop B - air monitoring strategies and asbestos abatement equipment: simulated abatement sites for which sampling

**20-440-8. Training provider administrative tasks and certification requirements**

strategies would have to be developed e.g. occupied facilities, industrial situations.

- (iii) Workshop C - conducting visual inspections: 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 shall be asked which are designed to stimulate a person's recall of the area. A series of two or three videos with different site conditions and different degrees of cleanliness. A reasonable substitute may be used subject to the approval of the department; and

(O) course review: a review of key aspects of the training course.

(Effective February 9, 1989; amended June 4, 1999.)

**20-440-8. Training provider administrative tasks and certification requirements**

- (a) Approval of training providers.
  - (1) Training courses required for licensure, certification, and employment as set forth in sections 20-440-1 through 20-440-7 of the Regulations of Connecticut State Agencies shall be approved by the commissioner in writing.
  - (2) Persons wishing to provide such training courses shall meet the minimum qualifications and criteria described in this subsection. The commissioner, upon application, may approve either initial training courses or refresher training courses or both.
  - (3) Each of the courses of training that are to be used to fulfill training requirements shall obtain individual approval by the commissioner. Providers of approved training shall permit up to two representatives of the commissioner to attend each course and to take the written examination without cost to the department.
  - (4) Courses of training may be approved following the submission of an application to the commissioner on forms provided by the department.
  - (5) Approval shall be for a period of one year from the date of last approval. Providers shall reapply for course approval at least thirty days, but not more than sixty days prior to the expiration date of the approved course. Re-application for approval shall include all the information required by this subsection.
  - (6) Providers located outside the State of Connecticut shall submit all of the information required by this subsection and copies of applicable state or federal approvals, including the name, address, telephone number of the person, department or agency giving such approval.
- (b) Training providers shall perform the following as a condition of maintaining their approved status:
  - (1) Issue written documentation of accreditation within thirty calendar days to students who complete the training course or refresher training course and pass the course examination. The written documentation shall include a unique certificate number, the name of the accredited person, the discipline of the training course completed, the dates of the training course, the date of the examination, an expiration date of one year after the date upon which the person successfully completed the course and examination, the name, address and telephone number of the training provider that issued the certificate, or statement that the person receiving the certificate has completed the requisite training for asbestos accreditation under TSCA Title II and the name of the state in which the course was given. Written documentation shall state that accreditation shall lapse one year from the date of the exam.
  - (2) provide to the commissioner within thirty calendar days of the conclusion of the course, the name, address, telephone number, social security number, course title and dates given, for each student passing the course examination; retain such information for a period of three years.

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- (3) notify the commissioner, in writing, of any changes in course content, training aids used, facility utilized or other matters which would alter the instruction from that described in the approval application. Minor changes in agenda, such as guest speaker, if otherwise qualified, and course schedule are exempted.
  - (4) notify the commissioner, in writing, of courses scheduled at least ten days prior to the starting date for the course.
  - (5) utilize and distribute, as part of the course, content information or training aids furnished by the department.
- (c) Application for training course approval. Application for approved training provider status shall be submitted to the commissioner in writing on forms provided by the department. Such applications shall contain the following information:
- (1) The name under which the training provider conducts or intends to conduct the training;
  - (2) name, address, telephone number of the person conducting the course;
  - (3) the type of course for which approval is requested;
  - (4) a list of any other states that currently approve the training course;
  - (5) a course outline showing topics covered, the amount of time given to each topic, the amount of time given to each type of hands-on training and the length of the training day;
  - (6) a copy of the course manuals for instructors and students, including all printed material to be distributed in the course;
  - (7) a description of teaching methods to be employed, including description of audio-visual aids to be used;
  - (8) a description of the hands-on training, including the facility to be utilized, including protocol of instruction, number of students to be accommodated and the number of instructors;
  - (9) a description of the equipment that will be used in both classroom lectures and in hands-on training;
  - (10) a description of the background, training, and experience of the faculty providing the training, including instructors' names and qualifications;
  - (11) an example of the written examination to be given showing the standard length and format along with required passing score;
  - (12) a detailed statement about the development of the examination as used in the course;
  - (13) a list of the fees required;
  - (14) a sample copy of the written documentation given to course participants upon successful completion of the course;
  - (15) an example of the numbered documents of accreditation issued to students who attend the course and pass the examination; and
  - (16) any additional information or documentation as may be required by the commissioner to evaluate the adequacy of the application.
- (d) Suspension and withdrawal of training course approval.
- (1) General. The department shall conduct periodic reviews of approved training courses and may revoke approval at any time it determines that the course fails to meet the requirements established by this section or the Connecticut General Statutes governing the provision of such services.
  - (2) Criteria. Suspension or withdrawal of training course approval by the department shall be based on the following criteria:
    - (a) Misrepresentation of the extent of a training course's approval by another state or EPA;
    - (b) failure to submit required information or notifications in a timely manner;
    - (c) failure to maintain requisite records;
    - (d) falsification of accreditation records, instructor qualifications, or other accreditation information;

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- (e) failure to adhere to the training standards and requirements of sections 20-440 and 20-441 of the Connecticut General Statutes and corresponding regulations; or
  - (f) violation of other asbestos regulations administered by the department.
- (Effective June 4, 1999.)

**20-440-9. Recordkeeping**

- (a) Approved training providers. Approved training providers shall establish and maintain records and documents pursuant to the requirements of section 20-440-8(b) of the regulations of Connecticut State Agencies and shall make such records and documents available to the commissioner and/or the EPA upon request. Training providers whose principal place of business is outside of the State of Connecticut shall provide hard copy of such records or documents within ten business days of receipt of such a request from the commissioner.
- (b) Duration of record retention and circumstances requiring notification. Records and documents or copies thereof required by the regulations of Connecticut State Agencies shall be retained for a period of three years from the date of course completion. Training providers ceasing to do business, or relocating the principal place of business shall so notify the commissioner in writing within thirty days of such event. The commissioner, on receipt of such notification, may instruct that records required by this section or copies thereof be surrendered to the department. Training providers shall comply with the commissioner's instructions within sixty days.
- (c) Storage of records.
  - (1) Training course materials. A training provider shall retain copies of all instructional materials used in the delivery of the classroom training such as student manuals, instructor notebooks and handouts.
  - (2) Instructor qualifications. A training provider shall retain copies of all instructors' resumes, and the documents issued by the department approving each instructor. Instructors shall have been approved by the department before teaching courses for accreditation purposes. A training provider shall notify the department in advance whenever it changes course instructors. Records shall accurately identify the instructors who taught each particular class for each date that a class was offered.
  - (3) Examination. A training provider shall document that every individual who receives accreditation for an initial training course has achieved a passing score on the examination. These records shall clearly indicate the date on which the exam was administered, the training course and discipline for which the exam was given, the name of the individual who proctored the exam, a copy of the exam and the name and the test score of each individual taking the exam. The topic and dates of the training course shall correspond with those listed on that individual's certificate.
  - (4) Documents of accreditation. Training providers shall maintain records that document the names of all individuals who have been accredited, their documents of accreditation numbers, the disciplines for which accreditation was conferred, training and expiration dates, and the training location. The training provider shall maintain the records in a manner that allows verification by telephone of the required information.
  - (5) Verification of accreditation information. Training providers offering the initial management planner training course shall verify that students have met the prerequisite of possessing valid inspector accreditation at the time of course admission.

(Effective February 9, 1989; amended effective June 4, 1999.)

**20-441. Refresher training**

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20-441. Refresher training

- (a) Asbestos abatement site supervisors and asbestos abatement workers shall receive refresher training annually. The time period between successful completion of initial training and refresher training or refresher training and subsequent refresher training programs shall not exceed two years. Upon satisfactory completion of such training, the training provider shall issue written documentation of accreditation. Such documentation of accreditation shall lapse one year after the date of issuance. Certification issued by the department will reflect date of refresher training completion and shall lapse one year after the date of issuance.
- (a) Refresher training providers shall perform the following as a condition of approved status:
  - (1) Issue written documentation of accreditation within thirty calendar days to students who complete the refresher training course and pass the course examination. The written documentation shall include a unique certificate number, the name of the accredited person, the discipline of the training course completed, the dates of the training course, the date of the examination, an expiration date or one year after the date upon which the person successfully completed the course and examination, the name, address and telephone number of the training provider that issued the certificate, or statement that the person receiving the certificate has completed the requisite training for asbestos accreditation under TSCA Title II and the name of the State in which the course was given. Written documentation shall state that accreditation shall lapse one year from the date of the examination.
  - (2) provide the name, address, telephone number, social security number, course title and dates given for each student passing the course examination to the commissioner within thirty calendar days of the conclusion of the course, and retain such information for a period of three years.
  - (3) notify the commissioner, in writing, of changes in course content, training aids used, facility utilized or other matters which would alter the instruction from that described in the approval application, and minor changes in agenda such as guest speaker (if otherwise qualified) and course schedule.
  - (4) notify the commissioner, in writing, of courses scheduled at least ten days prior to the starting date for the course.
  - (5) utilize and distribute, as part of the course, content information or training aids furnished by the department.
- (c) Approval of refresher training providers.
  - (1) General
    - (A) Refresher training courses required for certification and employment as an asbestos abatement site supervisor or an asbestos abatement worker, and for certification and licensure in the various disciplines of consultant, shall be approved by the commissioner in writing.
    - (B) Persons wishing to provide refresher training courses required for certification and employment as an asbestos abatement site supervisor, asbestos abatement worker, or for certification and licensure as an asbestos consultant, shall meet the minimum qualifications and criteria described in this subsection. The commissioner, upon application, may approve refresher training courses.
    - (C) Each of the different courses of refresher training that are to be used to fulfill refresher training requirements shall obtain individual approval by the commissioner. Providers of approved refresher training shall permit up to two representatives of the commissioner to attend each course and to take the written examination without cost to the department.
    - (D) Courses of refresher training may be approved following the submission of an application to the commissioner on forms provided by the department.
    - (E) Approval shall be for a period of one year from the date of last approval. Providers shall reapply for course approval at least thirty days, but not

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more than sixty days prior to the expiration date of the approved course. Re-application for approval shall include all the information required by this section.

- (F) Providers located outside the State of Connecticut shall submit all of the information required by this subsection and copies of applicable state or federal approvals, including the name, address, telephone number of the person, department or agency giving such approval.
- (2) Application for refresher training course approval. Application for approved refresher training provider status shall be submitted to the commissioner in writing on forms provided by the department. Such applications shall contain the following information:
- (A) The name under which the refresher training provider conducts or intends to conduct the refresher training;
  - (B) name, address and telephone number of the person conducting the course;
  - (C) the type of course for which approval is requested;
  - (D) a list of any other states that currently approve the refresher training course;
  - (E) a course outline showing topics covered, the amount of time given to each topic, the amount of time given to each type of hands-on training and the length of the refresher training day;
  - (F) a copy of the course manuals for instructors and students, including all printed material to be distributed in the course;
  - (G) a description of teaching methods to be employed, including description of audio-visual aids to be used;
  - (H) a description of the hands-on training facility to be utilized, including the protocol of instruction, number of students to be accommodated and the number of instructors;
  - (I) a description of the equipment that will be used in both classroom lectures and in hands-on training;
  - (J) a description of the background, training, and experience of the faculty providing the refresher training, including instructors' names and qualifications;
  - (K) an example of the written examination to be given showing the standard length and format along with required passing score;
  - (L) a detailed statement about the development of the examination as used in the course;
  - (M) a list of the tuition required;
  - (N) a sample copy of the written documentation given to course participants upon successful completion of the course;
  - (O) an example of the numbered documents of accreditation issued to students who attend the course and pass the examination; and
  - (P) any additional information or documentation as may be required by the commissioner to evaluate the adequacy of the application.
- (3) Suspension and withdrawal of refresher training course approval.
- (A) General. The department shall conduct periodic reviews of approved refresher training courses and may revoke approval after a hearing conducted in accordance with Chapter 54, of the Connecticut General Statutes at any time it determines that the course fails to meet the requirements established by this section or of the Connecticut General Statutes governing the provision of such services.
  - (B) Criteria. Suspension or withdrawal of refresher training course approval by the department is based on the following criteria:
    - (i) Misrepresentation of the extent of a refresher training course's approval by another state or EPA;

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- (ii) failure to submit required information or notifications in a timely manner;
  - (iii) failure to maintain requisite records;
  - (iv) falsification of accreditation records, instructor qualifications, or other accreditation information;
  - (v) failure to adhere to the refresher training standards and requirements of sections 20-440 and 20-441 of the Connecticut General Statutes and corresponding regulations; or
  - (vi) violation of other asbestos regulations administered by the State of Connecticut.
- (C) Curriculum requirements. Refresher training shall be at least one day duration for asbestos abatement site supervisors, asbestos abatement workers, management planners, project designers and project monitors. Refresher training for inspectors shall be at least half a day. The refresher training course for management planners shall be comprised of at least half a day of inspector refresher training and at least half a day of refresher training for management planners. Refresher courses shall be conducted as separate and distinct courses and not combined with any other training during the period of the refresher course. Refresher training shall include review and discussion of changes in and interpretation of applicable state and federal laws, regulations, policies and guidelines, developments or changes in state-of-the art procedures and equipment and a review of key areas of initial training specific to each discipline. In order to renew certification, currently accredited asbestos abatement workers, project designers and project monitors who have received certification in their disciplines by successfully completing the training program for asbestos abatement site supervisors as described in subdivision 20-440-7(c)(2), shall take the refresher training course specifically designed for their disciplines.
- (D) Verification of accreditation information. Training providers of refresher courses shall confirm that their students possess valid accreditation before granting course admission.
- (E) Examination. Refresher training providers shall determine successful completion of a refresher course by conducting a written examination at the conclusion of the course. A score of seventy percent or higher shall be considered passing.
- (F) Refresher course record retention. A refresher training provider shall document that every individual who receives accreditation for a refresher training course has achieved a passing score on the examination. These records shall 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 individual who proctored the exam, a copy of the exam and the name and the test score of each individual taking the exam. The topic and dates of the training course shall correspond with those listed on that individual's document of accreditation.
- (i) Approved refresher training providers. Approved refresher training providers shall establish and maintain records and documents pursuant to the requirements of subsection (a) of Section 20-440-8 of the Regulations of Connecticut State Agencies and shall make such records and documents available to the commissioner and/or the EPA upon request. Refresher training providers whose principal place of business is outside of the State of Connecticut shall provide hard copy of such records or documents within ten business days of receipt of such a request from the commissioner.



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- (ii) Duration of record retention and circumstances requiring notification. Records and documents or copies thereof required by this section shall be retained for a period of three years from the date of course completion. Persons ceasing to do business, or relocating the principal place of business shall so notify the commissioner in writing within thirty days of such event. The commissioner, on receipt of such notification, may instruct that the records or copies thereof be surrendered to the department. The person shall comply with the commissioner's instructions within sixty days.
- (G) Required storage of records. The following records shall be stored:
  - (i) Refresher training course materials. A training provider shall retain copies of all instructional materials used in the delivery of the classroom training such as student manuals, instructor notebooks and handouts.
  - (ii) Instructor qualifications. A refresher training provider shall retain copies of all instructors' resumes, and the documents approving each instructor issued by the State. Instructors shall be approved by the department before teaching courses for accreditation purposes. A refresher training provider shall notify the department in advance whenever it changes course instructors. Records shall accurately identify the instructors that taught each particular course for each date that a course is offered.
  - (iii) Examination. A refresher training provider shall document each individual who receives accreditation for a refresher training course has achieved a passing score on the examination. These records shall clearly indicate the date upon which the exam was administered, the refresher training course and discipline for which the exam was given, the name of the individual who proctored the exam, a copy of the exam and the name and the test score of each individual taking the exam. The topic and dates of the refresher training course shall correspond with those listed on that individual's certificate.
  - (iv) Documents of accreditation. The refresher training providers shall maintain records that document the names of all individuals who have been accredited, their documents of accreditation numbers, the disciplines for which accreditation was conferred, refresher training and expiration dates, and the refresher training location. The refresher training provider shall maintain the records in a manner that allows verification by telephone of the required information.

(Effective June 4, 1999.)