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TITLE 326 AIR POLLUTION CONTROL BOARD

LSA Document #03-283(F)

DIGEST

Amends 326 IAC 18-1-1, 326 IAC 18-1-2, 326 IAC 18-1-3, 326 IAC 18-1-4, 326 IAC 18-1-5, and 326 IAC 18-1-6 to delete requirements for waste disposal managers to be licensed to handle asbestos waste. Amends 326 IAC 18-1-9 to delete the asbestos waste disposal manager license fee. Amends 326 IAC 18-2-2 to delete waste disposal manager from the definition of licensed. Amends 326 IAC 18-2-3 to correct typographical errors and formatting. Effective 30 days after filing with the secretary of state.

HISTORY

First Notice of Comment Period: November 1, 2003, Indiana Register (27 IR 574).

Second Notice of Comment Period and Notice of First Public Hearing: April 1, 2004, Indiana Register (27 IR 2343).

Date of First Hearing: June 2, 2004.

Proposed Rule and Notice of Second Public Hearing: July 1, 2004, Indiana Register (27 IR 3127).

Change of Hearing Notice: August 1, 2004 (27 IR 3591).

Date of Second Hearing: October 6, 2004.

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| 326 IAC 18-1-1 | 326 IAC 18-1-6 |
| 326 IAC 18-1-2 | 326 IAC 18-1-9 |
| 326 IAC 18-1-3 | 326 IAC 18-2-2 |
| 326 IAC 18-1-4 | 326 IAC 18-2-3 |
| 326 IAC 18-1-5 | |

SECTION 1. 326 IAC 18-1-1 IS AMENDED TO READ AS FOLLOWS:

326 IAC 18-1-1 Applicability

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-6

Affected: IC 13-11-2-158; IC 13-17

Sec. 1. (a) This rule shall apply to persons who do any of the following:

- (1) Inspect for asbestos-containing materials at a facility.
- (2) Develop asbestos management plans for school buildings.
- (3) Design asbestos projects for implementation at a facility.
- (4) Supervise the implementation of asbestos projects at a facility.
- (5) Implement asbestos projects at a facility.
- ~~(6) Manage disposal, at a waste disposal facility, of ACM removed from a facility as specified at 329 IAC 10-8-4.~~

(b) A person may apply to the department for a license to perform activities under any of the following disciplines:

- (1) Inspector.
- (2) Management planner.
- (3) Project designer.
- (4) Asbestos project supervisor.
- (5) Asbestos worker.
- (6) Asbestos contractor.
- ~~(7) Waste disposal manager.~~

(Air Pollution Control Board; 326 IAC 18-1-1; filed Sep 23, 1988, 1:45 a.m.: 12 IR 269; filed May 12, 1998, 9:15 a.m.: 21 IR 3747; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Feb 14, 2005, 11:15 a.m.: 28 IR 2022)

SECTION 2. 326 IAC 18-1-2, AS AMENDED AT 28 IR 99, SECTION 82, IS AMENDED TO READ AS FOLLOWS:

326 IAC 18-1-2 Definitions

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-6

Affected: IC 13-11-2-158; IC 13-17

Sec. 2. The following definitions apply throughout this rule:

(1) "Approved initial training course" means a course approved by the department under 326 IAC 18-2 for purposes of providing initial training to persons to become licensed.

(2) "Approved refresher training course" means a course approved by the department under 326 IAC 18-2 for purposes of providing refresher training to licensed persons.

(3) "Asbestos" means the asbestiform varieties of the following:

(A) Chrysotile (serpentine).

(B) Crocidolite (riebeckite).

(C) Amosite (cummingtonite-grunerite).

(D) Anthophyllite.

(E) Tremolite.

(F) Actinolite.

(4) "Asbestos-containing building material" or "ACBM" means any ACM that is in or on structural members or other parts of a school.

(5) "Asbestos-containing material" or "ACM" means asbestos or any material containing more than one percent (1%) asbestos as determined by methods specified in 40 CFR 763, Appendix E, Subpart E, Section 1, Polarized Light Microscopy* including Category I and Category II asbestos-containing material and all friable material.

(6) "Asbestos-Containing Materials in Schools Rule" means the Asbestos-Containing Materials in Schools Rule under 40 CFR 763, Subpart E*.

~~(7) "Asbestos waste disposal manager" means a person who is present on-site during all ACM handling and disposal activities under 329 IAC 10-8.~~

~~(8)~~ (7) "Asbestos license" means a document issued by the department to a person meeting the licensing requirements of this rule.

~~(9)~~ (8) "Asbestos Model Accreditation Plan Rule" means the Asbestos Model Accreditation Plan Rule under 40 CFR 763, Subpart E, Appendix C*.

~~(10)~~ (9) "Asbestos removal contractor" means a person who enters into one (1) or more contracts to implement an asbestos removal project at a facility.

~~(11)~~ (10) "Asbestos removal project" means any and all activities at a facility involving the removal, encapsulation, enclosure, abatement, renovation, repair, removal, storage, stripping, dislodging, cutting, or drilling that result in the disturbance or repair of any one (1) of the following:

(A) At least three (3) linear feet of RACM on or off pipes.

(B) At least three (3) square feet of RACM on or off other facility components.

(C) A total of at least seventy-five hundredths (0.75) cubic foot of RACM on or off all facility components.

These activities include, but are not limited to, work area preparation, implementation of engineering controls and work practices, and work area decontamination activities required by 326 IAC 14-10-4 or 29 CFR 1926.1101* (Occupational Safety and Health Administration, Occupational Exposure to Asbestos).

~~(12)~~ (11) "Certificate of accreditation" means a document issued by the department to a person who met the accreditation requirements of this rule prior to the rule being amended to change the term from accreditation to asbestos license.

~~(13)~~ (12) "Certificate of training" means a document issued by an approved initial or refresher training course provider to a person indicating that the person attended an approved initial or refresher training course and received a passing score on the written examination for such course. A certificate of training issued to a person seeking licensing by the department shall not be valid for purposes of this subdivision if such certificate of training is issued by a training course provider who is such person's partner or employer or a subsidiary entity of such person's employer.

~~(14)~~ (13) "Facility" means any:

(A) school building;

(B) institutional, commercial, public, or industrial building, 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 residential buildings having four (4) or fewer dwelling units);

(C) ship; and

(D) 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. The term includes any structure, installation, or building that was previously subject to 326 IAC 14, regardless of its current use or function.

~~(15)~~ **(14)** “Facility component” means any part of a facility, including equipment.

~~(16)~~ **(15)** “Friable” means that the material, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure or mechanical forces reasonably expected to act on the material and includes previously nonfriable material after such nonfriable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure or mechanical forces reasonably expected to act on the material.

~~(17)~~ **(16)** “Inspection” means those activities undertaken to specifically determine the presence or location, or to assess the condition of, friable or nonfriable ACM, or suspected ACM, whether by visual or physical examination, or by collecting samples of such material. In addition, the term includes all reinspections of friable and nonfriable known or assumed ACM ~~which that~~ has been previously identified. The term excludes the activities of periodic surveillance, compliance inspections, and visual inspections as referenced in 40 CFR 763.90(i)*.

~~(18)~~ **(17)** “Inspector” means any person who conducts an inspection for ACM in a facility.

~~(19)~~ **(18)** “Interim accreditation”, when referring to a training course, means that the U.S. EPA has determined that the training course meets the requirements of Section 206(c)(2) of the Toxic Substances Control Act (TSCA) Title II*.

~~(20)~~ **(19)** “Licensed”, when referring to a person, means a person holding a current asbestos license issued by the department under this rule.

~~(21)~~ **(20)** “Major fiber release episode” means any disturbance of ACM, resulting in a visible emission, ~~which that~~ involves the falling or dislodging of more than three (3) square feet, three (3) linear feet, or seventy-five hundredths (0.75) cubic foot of friable ACM.

~~(22)~~ **(21)** “Management plan” means a document prepared under the Asbestos-Containing Materials in Schools Rule under 40 CFR 763, Subpart E* that addresses the manner in which ACM will be handled in a school building.

~~(23)~~ **(22)** “Management planner” means any person who prepares management plans for schools.

~~(24)~~ **(23)** “Nonfriable”, when referring to material at a facility, means material ~~which, that~~, when dry, may not be crumbled, pulverized, or reduced to powder by hand pressure or mechanical forces reasonably expected to act on the material.

~~(25)~~ **(24)** “Person” has the meaning as set forth in IC 13-11-2-158(a).

~~(26)~~ **(25)** “Photographic identification card” means any of the following:

- (A) A valid driver's license or identification (ID) card issued by any state that displays the individual's photograph.
- (B) A valid work visa issued by the United States Department of Justice.
- (C) A valid United States passport.

~~(27)~~ **(26)** “Project designer” means a person who designs any of the following activities with respect to RACM in a facility:

- (A) An asbestos project other than a small scale short duration (SSSD) maintenance activity.
- (B) A maintenance activity that disturbs RACM other than an SSSD maintenance activity.
- (C) An asbestos project for a major fiber release episode.

~~(28)~~ **(27)** “Project supervisor” means a person who supervises or performs any of the following activities with respect to RACM in a facility:

- (A) An asbestos project other than an SSSD activity.
- (B) A maintenance activity that disturbs RACM other than an SSSD activity.
- (C) An asbestos project for a major fiber release episode.

~~(29)~~ **(28)** “Regulated asbestos-containing material” or “RACM” means the following:

- (A) Friable asbestos material.
- (B) Category I nonfriable ACM that has become friable.
- (C) Category I nonfriable ACM that will be or has been subjected to:
 - (i) sanding;
 - (ii) grinding;
 - (iii) cutting;
 - (iv) abrading; or
 - (v) burning.

(D) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this article. The term does not include nonfriable asbestos-containing resilient floor covering materials unless the materials are sanded, beadblasted, or mechanically pulverized so that visible asbestos emissions are discharged or the materials are burned. Resilient floor covering materials include sheet vinyl flooring, resilient tile, or associated adhesives.

~~(30)~~ (29) "Response action" means a method, including:

- (A) removal;
- (B) encapsulation;
- (C) enclosure;
- (D) repair; and
- (E) operation and maintenance;

that protects human health and the environment from RACM.

~~(31)~~ (30) "School" means any combination of grades [*sic.*, *grade*] kindergarten, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, or 12.

~~(32)~~ (31) "School building" means the following:

(A) Any structure at a school suitable for use as a:

- (i) classroom;
- (ii) laboratory;
- (iii) library;
- (iv) school eating facility; or
- (v) facility used for the preparation of food.

(B) Any gymnasium or other facility at a school ~~which that~~ is specially designed for athletic or recreational activities for an academic course in physical education.

(C) Any other facility used by a school for the instruction or housing of students or for the administration of educational or research programs.

(D) Any maintenance, storage, or utility facility, including any hallway, essential to the operation of any facility described in clauses (A) through (C).

(E) Any portico or covered exterior hallway or walkway ~~which that~~ is part of a school.

(F) Any exterior portion of a mechanical system used to heat, ventilate, or air condition (HVAC) interior space of a school.

~~(33)~~ (32) "Small-scale, short duration" or "SSSD" means any activity in which the amount of RACM being disturbed is less than three (3) linear feet on or off pipes or three (3) square feet on or off other facility components, or a total of less than seventy-five hundredths (0.75) cubic foot on or off all facility components.

~~(34)~~ (33) "Structural member" means any load-supporting member of a facility, such as beams and load-supporting walls, or any nonload-supporting member, such as ceilings and nonload-supporting walls.

~~(35)~~ (34) "Worker" means a person who performs any of the following activities with respect to RACM in a facility:

- (A) An asbestos project other than an SSSD activity.
- (B) A maintenance activity that disturbs RACM other than an SSSD activity.
- (C) An asbestos project for a major fiber release episode.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Board*; 326 IAC 18-1-2; filed Sep 23, 1988, 1:45 p.m.: 12 IR 269; filed Jul 19, 1990, 4:50 p.m.: 13 IR 2110; filed Dec 5, 1990, 3:40 p.m.: 14 IR 612; filed Jul 5, 1995, 10:00 a.m.: 18 IR 2740; errata filed Jul 5, 1995, 10:00 a.m.: 18 IR 2795; filed May 12, 1998, 9:15 a.m.: 21 IR 3748; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1572; filed Aug 26, 2004, 11:30 a.m.: 28 IR 99; filed Feb 14, 2005, 11:15 a.m.: 28 IR 2022)

SECTION 3. 326 IAC 18-1-3 IS AMENDED TO READ AS FOLLOWS:

326 IAC 18-1-3 General provisions

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-6

Affected: IC 13-11-2-158; IC 13-17

Sec. 3. (a) No person shall conduct the following activities without licensing by the department:

- (1) Inspect for ACM at a facility.
- (2) Develop an asbestos management plan for a school building.
- (3) Design an asbestos project to be implemented at a facility.
- (4) Supervise the implementation of an asbestos project at a facility.
- (5) Implement an asbestos project at a facility.
- ~~(6) Manage disposal, at a waste disposal facility, of ACM, as specified at 329 IAC 10-8-4.~~

(b) Those persons holding a valid Indiana certificate of accreditation on the effective date of this rule shall be considered licensed under this rule until the expiration date of their certificate of accreditation.

(c) A licensed person shall carry: ~~either of the following:~~

(1) a certificate of accreditation and a photographic identification card; **or**

(2) an asbestos license;

at all times while performing activities specified in subsection (a)(1) through ~~(a)(6)~~ **(a)(5)** unless otherwise specified in section ~~8(a)(2)~~ **8(2)** of this rule.

(d) An asbestos contractor shall implement asbestos projects by employing a licensed:

(1) asbestos worker; ~~an~~

(2) inspector; ~~a~~

(3) project supervisor; ~~a~~

(4) project designer; ~~or a~~

(5) management planner;

who fulfills the requirements of section 4(d) or 6(a) of this rule by successfully completing an approved training course provided by another Indiana approved training provider. (*Air Pollution Control Board; 326 IAC 18-1-3; filed Sep 23, 1988, 1:45 p.m.: 12 IR 270; filed Dec 5, 1990, 3:40 p.m.: 14 IR 614; filed May 12, 1998, 9:15 a.m.: 21 IR 3751; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Feb 14, 2005, 11:15 a.m.: 28 IR 2024*)

SECTION 4. 326 IAC 18-1-4 IS AMENDED TO READ AS FOLLOWS:

326 IAC 18-1-4 Asbestos license; qualifications

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-6

Affected: IC 13-11-2-158; IC 13-17

Sec. 4. (a) In order to qualify for an initial asbestos license as an asbestos inspector, a person shall meet the following:

(1) Possess a high school degree or equivalent. Two (2) years of experience in one (1) or a combination of the following fields is equivalent to a high school degree:

(A) Asbestos inspection.

(B) Building construction.

(C) Building maintenance.

(D) General building inspection.

(2) Have attended an approved initial training course for asbestos inspection and received a passing score on the written examination for such course.

(b) In order to qualify for an initial asbestos license as an asbestos management planner, a person shall meet the following:

(1) Possess an associate's, bachelor's, or graduate degree in architecture, industrial hygiene, engineering, building system design, or a related field of study. One (1) year of experience in one (1) or more of the following fields and possession of a high school degree or equivalent, as provided in subsection (a)(1), may substitute for the required associate's, bachelor's, or graduate degree:

(A) Planning, supervision, or cost estimation of building construction.

(B) Planning, supervision, or cost estimation of asbestos projects.

(C) Asbestos inspection.

(D) General building inspection.

(2) Have attended an approved initial training course for asbestos inspection and an approved training course for asbestos management planning and received passing scores on the written examinations for such courses.

(c) In order to qualify for an initial asbestos license as an asbestos project designer, a person shall meet the following:

(1) Possess an associate's, bachelor's, or graduate degree in architecture, industrial hygiene, engineering, building system design, or a related field of study. One (1) year of experience in one (1) or more of the following fields and possession of a high school degree or equivalent, as provided in subsection (a)(1), may substitute for the required associate's, bachelor's, or graduate degree:

(A) Planning, supervision, or cost estimation of building construction.

(B) Planning, supervision, or cost estimation of asbestos projects.

(C) Asbestos inspection.

(D) General building inspection.

(2) Have attended an approved initial training course for asbestos project design and received a passing score on the written examination for such course.

(d) In order to qualify for an initial asbestos license as an asbestos project supervisor, a person shall meet the following:

(1) Have a minimum of six (6) months of experience as an asbestos project supervisor or as an asbestos worker.

(2) Have attended an approved initial training course for asbestos project supervision and received a passing score on the written examination for such course.

(e) In order to qualify for an initial asbestos license as an asbestos worker, a person shall have attended an approved initial training course for asbestos workers or an approved initial training course for asbestos project supervisors and received a passing score on the written examination for such course.

~~(f) In order to qualify for an initial asbestos license as an asbestos waste disposal manager, a person shall have attended an approved initial training course for asbestos workers or an approved initial training course for asbestos project supervisors and received a passing score on the written examination for such course.~~

~~(g)~~ (f) In order to qualify for an initial asbestos license as an asbestos contractor, a person shall meet the following:

(1) Possess proof of financial responsibility with a current certificate of insurance documenting that the contractor carries asbestos liability insurance in the amount of at least five hundred thousand dollars (\$500,000) for the implementation of asbestos projects. The company offering insurance coverage must be recognized or licensed by the Indiana department of insurance to provide asbestos coverage. The contractor shall notify the department in writing within five (5) working days of any change in the status of the contractor's financial responsibility.

(2) Have attended an approved initial training course for an asbestos project supervisor or an asbestos removal contractor and received a passing score on the written examination for such course. A contractor may designate an employee to fulfill the training requirements in this subdivision and in section 6(a)(2) of this rule. The contractor shall notify the department in writing if the contractor transfers the designated status to another employee within five (5) working days of the transfer. Such written notification shall include the name of the newly designated employee and evidence of that person's successful completion of training requirements in this subdivision and in section 6(a)(2) of this rule.

(3) Demonstrate that the contractor is competent in the field of asbestos project implementation.

(4) The department shall be listed as a certificate holder on the insurance certificate.

~~(h)~~ (g) Any individual who has had an eighteen (18) month time lapse between any two (2) training courses of the same discipline shall be required to attend an initial training course for the discipline in which he or she is seeking licensing. (*Air Pollution Control Board; 326 IAC 18-1-4; filed Sep 23, 1988, 1:45 p.m.: 12 IR 270; filed Jul 6, 1989, 1:15 p.m.: 12 IR 2026; filed Jul 19, 1990, 4:50 p.m.: 13 IR 2112; filed Jul 5, 1995, 10:00 a.m.: 18 IR 2743; filed May 12, 1998, 9:15 a.m.: 21 IR 3751; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Feb 14, 2005, 11:15 a.m.: 28 IR 2025*)

SECTION 5. 326 IAC 18-1-5, AS AMENDED AT 28 IR 101, SECTION 83, IS AMENDED TO READ AS FOLLOWS:

326 IAC 18-1-5 Asbestos license; application

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-6

Affected: IC 13-11-2-158; IC 13-17

Sec. 5. (a) Any person seeking an initial asbestos license from the department as an asbestos inspector, a management planner, a project designer, a supervisor, ~~or a worker or an asbestos waste disposal manager~~, shall complete the following:

(1) Submit a completed application on forms provided by the department.

(2) Provide a copy of all required certificates of training indicating that the person successfully completed the approved initial and any requisite refresher training courses as defined in section ~~2(2)~~ **2(1)** and ~~2(3)~~ **2(2)** of this rule and received passing scores on all written examinations for such courses.

(3) Pay the license application fee specified in section 9 of this rule.

(b) Any person seeking an initial asbestos license from the department as an asbestos contractor shall complete the following:

(1) Submit a completed written application on forms provided by the department.

(2) Provide a statement that the person has read and understands this rule, the Asbestos-Containing Materials in Schools Rule, and 326 IAC 14-10.

(3) Provide a copy of all required certificates of training indicating that the person, or the contractor's designated representative, successfully completed the approved initial and any requisite refresher training courses for asbestos project supervisor or asbestos contractor and received passing scores on all written examinations for such courses.

(4) Provide a complete list of prior contracts for the previous twelve (12) months for asbestos projects, including names, addresses, and telephone numbers of persons for whom projects were performed.

(5) Provide an up-to-date copy of the contractor's written standard operating procedures, which include current compliance procedures, for the following regulatory programs:

(A) 326 IAC 14-2 (Emission Standards for Sources of Asbestos).

(B) 326 IAC 14-10 (Asbestos Demolition and Renovation Operations).

(C) ~~326 IAC 18-1~~ **This rule** (Asbestos Management Personnel; Licensing).

(D) ~~329 IAC 10-8~~ **329 IAC 10-8.1 (Special Waste Management and Disposal at Municipal Solid Waste Landfill, Nonmunicipal Solid Waste Landfills, and Restricted Waste Landfills).**

(E) 29 CFR 1926.1101* (Occupational Exposure to Asbestos, Final Rule).

(F) 29 CFR 1910.134* (Occupational Safety and Health Standards, Subpart I, Personal Protective Equipment).

(6) Provide a description of any asbestos projects that the contractor conducted that were prematurely terminated or not completed, including the circumstances surrounding termination.

(7) Provide a list of any contractual penalties that the contractor has paid for noncompliance with contract specifications.

(8) Provide copies of any and all:

(A) warning letters;

(B) notice and order of the commissioner;

(C) agreed orders;

(D) citations;

(E) notices of violation; or

(F) findings of violation;

levied against the contractor by any federal, state, or local governmental agency for violations of regulations or other laws pertaining to asbestos activities, including names and locations of the projects, the dates, and a description of how the allegations were resolved.

(9) Provide a description detailing all:

(A) legal proceedings;

(B) lawsuits;

(C) warning letters to supervisors from the commissioner; or

(D) claims;

~~which~~ **that** have been filed or levied against the contractor or any of his past or present employees, while employed by said contractor, for asbestos-related activities.

(10) Provide documentation of the contractor's financial responsibility with a current certificate of insurance with at least five hundred thousand dollars (\$500,000) of asbestos liability insurance. The company offering insurance coverage must be recognized or licensed by the Indiana department of insurance.

(11) Pay the license application fee as specified in section 9 of this rule.

(c) If the department determines the information on the application to be incomplete, the applicant will be requested to submit the missing information. If the information is not submitted within one (1) year of the department's receipt of the application, the application will expire and the fee is not transferable.

(d) In addition to the requirements of subsections (a)(2) and (b)(3), the department may require an applicant or a designated representative of a contractor, in the case of subsection (b)(3), to take an examination administered by the department. The examination shall cover only the discipline for which the applicant is seeking a license. The department shall deny the application if the applicant does not receive a passing score of seventy percent (70%). If the department denies the application, the certificate of training is invalid, and the applicant must retake and pass the initial training course for the discipline for which the applicant is seeking a license.

(e) The applicant shall provide two (2) copies of a clear and recent one and one-half (1½) inch by one and one-half (1½) inch identifying color photograph at the time of application to be attached to the face of the asbestos license by the department prior to issuance of the license by the department.

(f) The department shall review the application and shall make a determination as to the eligibility of the person. The department shall issue an asbestos license to any person who fulfills the requirements established by this rule. The department may deny an application for an asbestos license based on any of the criteria listed in section 7 of this rule, as applicable, or for failure to comply with any other provision of this rule.

(g) Applications must be completed in writing and submitted for processing. The department shall not process applications on a walk-in basis or process applications over the telephone. If the application is approved, the license will be sent to the applicant via the ~~U.S.~~ **United States** Postal Service to the address as listed on the application.

(h) An asbestos license shall be valid for one (1) year from the date of issuance.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Board*; 326 IAC 18-1-5; filed Sep 23, 1988, 1:45 p.m.: 12 IR 271; filed Jul 19, 1990, 4:50 p.m.: 13 IR 2113; filed May 12, 1998, 9:15 a.m.: 21 IR 3752; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1572; filed Aug 26, 2004, 11:30 a.m.: 28 IR 101; filed Feb 14, 2005, 11:15 a.m.: 28 IR 2026)

SECTION 6. 326 IAC 18-1-6 IS AMENDED TO READ AS FOLLOWS:

326 IAC 18-1-6 Renewal of asbestos license

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-6

Affected: IC 13-11-2-158; IC 13-17

Sec. 6. (a) Any person seeking to renew an asbestos license as an asbestos inspector, management planner, project designer, project supervisor, worker, ~~or contractor or asbestos waste disposal manager~~ shall meet the following requirements:

- (1) Have possessed a valid asbestos license within the previous six (6) months.
- (2) Have attended, within the previous twelve (12) months, an approved refresher training course for disciplines under which the person was previously accredited. In the case of a person seeking to renew an asbestos license as a management planner, the person will be required to have attended both the inspector refresher and the management planner refresher training courses.
- (3) Submit a completed application on forms provided by the department and include a copy of the certificates of training indicating that the person successfully completed the refresher training course and written examination.
- (4) Pay the license application fee as specified in section 9 of this rule.

(b) Any person seeking to renew an asbestos license as an asbestos removal contractor by the department shall include in the application updated information as required in section 5(b)(5) through 5(b)(10) of this rule if any information has changed during the previous twelve (12) months. The contractor shall routinely examine and update his standard operating procedures manual to reflect the compliance assurance methodologies that meet current federal, state, and local regulations or other laws pertaining to asbestos.

(c) If the department determines the information on the application to be incomplete, the applicant will be requested to submit the missing information. If the information is not submitted within one (1) year of the department's receipt of the application, the application will expire and the fee is not transferable.

(d) The applicant shall provide two (2) copies of a clear and recent one and one-half (1½) inch by one and one-half (1½) inch identifying color photograph at the time of application to be attached by the department to the face of the asbestos license prior to issuance of the license by the department.

(e) In addition to the requirements in subsection (a)(2) through (a)(3), the department may require an applicant or a designated representative of a contractor to take an examination administered by the department. The examination shall cover only the discipline for which the applicant is seeking the renewal license. The department shall deny the application if the applicant does not receive a passing score of seventy percent (70%). If the department denies the application, the certificate of training is invalid and the applicant must retake and pass the refresher training course for the discipline for which the applicant is seeking a license renewal.

(f) The department shall review the application and shall make a determination as to the eligibility of the person. The department

shall issue an asbestos license to any person who fulfills the requirements established by this rule. However, the department may deny an application for renewal of an asbestos license based on any of the criteria listed in section 7 of this rule, as applicable, or for failure to comply with any other provision of this rule.

(g) Applications must be completed in writing and submitted for processing. The department shall not process applications on a walk-in basis or process applications over the telephone. If the application is approved, the license will be sent to the applicant via the United States Postal Service to the address as listed on the application.

(h) Any individual who has had an eighteen (18) month time lapse between any two (2) training courses of the same discipline shall be required to attend an initial training course for the discipline in which they are seeking to be licensed. (*Air Pollution Control Board; 326 IAC 18-1-6; filed Sep 23, 1988, 1:45 p.m.: 12 IR 272; filed Jul 5, 1995, 10:00 a.m.: 18 IR 2744; filed May 12, 1998, 9:15 a.m.: 21 IR 3754; filed May 26, 2000, 8:47 a.m.: 23 IR 2425; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Feb 14, 2005, 11:15 a.m.: 28 IR 2027*)

SECTION 7. 326 IAC 18-1-9 IS AMENDED TO READ AS FOLLOWS:

326 IAC 18-1-9 License fee; application fee

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-6

Affected: IC 13-11-2-158; IC 13-17

Sec. 9. (a) Upon application for accreditation, an asbestos license, a person shall pay a fee as follows:

- (1) Asbestos inspector: one hundred dollars (\$100).
- (2) Asbestos management planner: one hundred dollars (\$100).
- (3) Asbestos project designer: one hundred dollars (\$100).
- (4) Asbestos contractor: one hundred fifty dollars (\$150).
- (5) Asbestos project supervisor: one hundred dollars (\$100).
- (6) Asbestos worker: fifty dollars (\$50).
- ~~(7) Asbestos waste disposal manager: fifty dollars (\$50).~~

(b) Fees paid by mail shall be paid by check or money order and shall be made payable to the Asbestos Trust Fund.

(c) The application fee is not:

- (1) transferable from one (1) type of asbestos license to another;
- (2) transferable from one (1) person to another;
- (3) transferable to any other type of license issued by the department; or
- (4) refundable;

unless requested by the applicant and approved by the department within three (3) days of submittal to the department or prior to processing by the department, whichever is earlier.

(d) If the department determines the information on the application to be incomplete, the applicant will be requested to submit the missing information. If the information is not submitted within one (1) year of the department's receipt of the application, the application will expire and the fee is not transferable or refundable. (*Air Pollution Control Board; 326 IAC 18-1-9; filed Sep 23, 1988, 1:45 a.m.: 12 IR 273; filed May 12, 1998, 9:15 a.m.: 21 IR 3755; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Feb 14, 2005, 11:15 a.m.: 28 IR 2028*)

SECTION 8. 326 IAC 18-2-2, AS AMENDED AT 28 IR 103, SECTION 86, IS AMENDED TO READ AS FOLLOWS:

326 IAC 18-2-2 Definitions

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-6

Affected: IC 13-11-2-158; IC 13-17

Sec. 2. The following definitions apply throughout this rule:

- (1) "Approved initial training course" means a course approved by the department under this rule, for purposes of providing initial training to persons to become licensed.
- (2) "Approved refresher training course" means a course approved by the department under this rule, for purposes of providing

refresher training to licensed persons.

(3) "Asbestos" means the asbestiform varieties of the following:

- (A) Chrysotile (serpentine).
- (B) Crocidolite (riebeckite).
- (C) Amosite (cummingtonite-grunerite).
- (D) Anthophyllite.
- (E) Tremolite.
- (F) Actinolite.

(4) "Asbestos-containing material" or "ACM" means asbestos or any material containing more than one percent (1%) asbestos as determined using methods specified in 40 CFR 763, Subpart E, Appendix E, Section I, Polarized Light Microscopy* including Category I and Category II ACM and all friable material.

(5) "Asbestos removal project" means any and all activities at a facility involving the removal, encapsulation, enclosure, abatement, renovation, repair, removal, storage, stripping, dislodging, cutting, or drilling that results in the disturbance or repair of the following:

- (A) At least three (3) linear feet of RACM on or off pipes.
- (B) At least three (3) square feet of RACM on or off other facility components.
- (C) A total of at least seventy-five hundredths (0.75) cubic foot of RACM on or off all facility components.

These activities include, but are not limited to, work area preparation, implementation of engineering controls and work practices, and work area decontamination activities required by 326 IAC 14-10-4 or 29 CFR 1926.1101* (Occupational Safety and Health Administration Occupational Exposure to Asbestos).

(6) "Day", for purposes of determining duration of approved training courses, means eight (8) hours including breaks and lunch.

(7) "Facility" means any:

- (A) school building;
- (B) institutional, commercial, public, or industrial, building, 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 residential buildings having four (4) or fewer dwelling units);
- (C) ship; and
- (D) 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 326 IAC 14 is included, regardless of its current use or function.

(8) "Facility component" means any part of a facility, including equipment.

(9) "Friable", when referring to material at a facility, means that the material, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure or mechanical forces reasonably expected to act on the material and includes previously nonfriable material after such nonfriable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure or mechanical forces reasonably expected to act on the material.

(10) "Hands-on training", when referring to a topic covered by a training course, means training ~~which that~~ gives students actual experience performing tasks associated with the accredited discipline as follows:

(A) For asbestos contractors, supervisors, ~~and workers, and disposal managers~~, the inclusion of the following:

- (i) Working with asbestos-substitute material.
- (ii) Fitting and using respirators.
- (iii) Use of glove bags.
- (iv) Donning protective clothing.
- (v) Constructing a decontamination unit.
- (vi) Other related abatement work activities.

(B) For asbestos inspectors, the inclusion of the following:

- (i) Simulated building walk-through inspection.
- (ii) Respirator fit testing.

(11) "Licensed", when referring to a person, means a person holding a current asbestos license issued by the department under 326 IAC 18-1 in the following disciplines:

- (A) Inspector.
- (B) Management planner.
- (C) Project designer.
- (D) Asbestos supervisor.
- (E) Asbestos worker.

(F) Asbestos contractor.

~~(G) Waste disposal manager.~~

(12) "Management plan" means a document prepared under the Asbestos-Containing Materials in Schools Rule that addresses the manner in which ACM will be handled in a school building.

(13) "Nonfriable", when referring to material at a facility, means material ~~which~~, **that**, when dry, may not be crumbled, pulverized, or reduced to powder by either hand pressure or mechanical forces reasonably expected to act on the material.

(14) "Person" has the meaning set forth in IC 13-11-2-158(a).

(15) "Regulated asbestos-containing material" or "RACM" means the following:

(A) Friable asbestos material.

(B) Category I nonfriable ACM that has become friable.

(C) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, abrading, or burning.

(D) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this article. The term does not include nonfriable asbestos-containing resilient floor covering materials unless the materials are sanded, beadblasted, or mechanically pulverized so that visible asbestos emissions are discharged or the materials are burned. Resilient floor covering materials include sheet vinyl flooring, resilient tile, or associated adhesives.

(16) "School" means any combination of grades [*sic.*, *grade*] kindergarten, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, or 12.

(17) "School building" means any of the following:

(A) A structure at a school suitable for use as a:

(i) classroom;

(ii) laboratory;

(iii) library;

(iv) school eating facility; or

(v) facility used for the preparation of food.

(B) A gymnasium or other facility at a school that is specially designed for athletic or recreational activities for an academic course in physical education.

(C) Another facility used by a school for the instruction or housing of students or for the administration of educational or research programs.

(D) A maintenance, storage, or utility facility, including any hallway, essential to the operation of any facility described in clauses (A) through (C).

(E) A portico or covered exterior hallway or walkway that is part of a school.

(F) An exterior portion of a mechanical system used to heat, ventilate, or air condition (HVAC) the interior space of a school.

(18) "Training course provider" means a person who provides an approved initial training course or an approved refresher training course for the purpose of licensing persons under 326 IAC 18-1.

(19) "TSCA Title II" refers to 15 U.S.C. 2641 et seq. of the federal Toxic Substances Control Act as amended on October 22, 1986*.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Board; 326 IAC 18-2-2; filed Sep 23, 1988, 1:45 a.m.: 12 IR 273; filed Jul 19, 1990, 4:50 p.m.: 13 IR 2114; filed May 12, 1998, 9:15 a.m.: 21 IR 3756; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1572; filed Aug 26, 2004, 11:30 a.m.: 28 IR 103; filed Feb 14, 2005, 11:15 a.m.: 28 IR 2028*)

SECTION 9. 326 IAC 18-2-3, AS AMENDED AT 28 IR 104, SECTION 87, IS AMENDED TO READ AS FOLLOWS:

326 IAC 18-2-3 Initial training course requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-6

Affected: IC 13-11-2-158; IC 13-17

Sec. 3. (a) In order to qualify for approval, an asbestos inspector training course shall include a written examination as outlined in section 5 of this rule and meet the following requirements:

(1) An asbestos inspector training course shall be at least three (3) days in duration and shall include **the following:**

(A) Lectures.

(B) Demonstrations.

- (C) Four (4) hours of hands-on training.
- (C) Individual respirator fit testing. ~~and~~
- (D) A course review.

Audiovisual materials shall be used to complement lectures where appropriate.

(2) An asbestos inspector training course shall adequately address the following topics:

- (A) Background information on asbestos to include the following:
 - (i) The identification of asbestos and examples and discussion of the uses and locations of asbestos in buildings.
 - (ii) The physical appearance of asbestos.
- (B) Potential health effects related to asbestos exposure to include the following:
 - (i) The nature of asbestos-related diseases.
 - (ii) Routes of exposure.
 - (iii) Dose-response relationships and the lack of a safe exposure level.
 - (iv) The synergistic effect between cigarette smoking and asbestos exposure.
 - (v) The latency period for asbestos-related diseases.
 - (vi) A discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancer of other organs.
- (C) Functions, qualifications, and role of inspectors to include **discussion of** the following:
 - (i) ~~Discussion of~~ Prior experience and qualifications for inspectors and management planners.
 - (ii) ~~Discussion of~~ The functions of an accredited inspector as compared to those of an accredited management planner.
 - (iii) ~~Discussion of~~ The inspection process, including inventory of ACM and physical assessment.
- (D) Legal liabilities and defenses to include the following:
 - (i) Responsibilities of the inspector and management planner.
 - (ii) A discussion of comprehensive general liability policies, claims-made and occurrence policies, **and** environmental and pollution liability policy clauses.
 - (iii) State liability insurance requirements.
 - (iv) Bonding and the relationship of insurance availability to bond availability.
- (E) Understanding building systems to include the following:
 - (i) The interrelationship between building systems, including an overview of common building physical plan layout.
 - (ii) Heat, ventilation, and air conditioning (HVAC) system types, physical organization, and where asbestos is found on HVAC components.
 - (iii) Building mechanical systems, their types and organization, and where to look for asbestos on such systems.
 - (iv) Inspecting electrical systems, including appropriate safety precautions.
 - (v) Reading blueprints and as-built drawings.
- (F) Public, employee, or building occupant relations to include the following:
 - (i) Notification of employee organizations about the inspection.
 - (ii) Signs to warn building occupants.
 - (iii) Tact in dealing with occupants and the press.
 - (iv) Scheduling of inspections to minimize disruption.
 - (v) Education of building occupants about actions being taken.
- (G) Preinspection planning and review of previous inspection records to include the following:
 - (i) Scheduling the inspection and obtaining access.
 - (ii) Building record review.
 - (iii) Identification of probable homogeneous areas from blueprints or as-built drawings.
 - (iv) Consultation with maintenance or building personnel.
 - (v) Review of previous inspection, sampling, and abatement records of a building.
 - (vi) The role of the inspector in exclusions for previously performed inspections.
- (H) Inspecting for friable and nonfriable ACM and assessing the condition of friable ACM to include the following:
 - (i) Procedures to follow in conducting visual inspections for friable and nonfriable ACM.
 - (ii) Types of building materials that may contain asbestos.
 - (iii) Touching materials to determine friability.
 - (iv) Open return air plenums and their importance in HVAC systems.
 - (v) Assessing damage, significant damage, potential damage, and potential significant damage.
 - (vi) Amount of suspected ACM, both in total quantity and as a percentage of the total area.
 - (vii) Type of damage.
 - (viii) Accessibility.
 - (ix) Material's potential for disturbance.

(x) Known or suspected causes of damage or significant damage.

(xi) Deterioration as assessment factors.

(I) Bulk sampling or documentation of asbestos in schools to include the following:

(i) Detailed discussion of the “A Simplified Sampling Scheme for Friable Surfacing Materials (U.S. EPA 560/5-85-030a October 1985)*”.

(ii) Techniques to ensure sampling in a randomly distributed manner for other than friable surfacing materials.

(iii) Sampling of nonfriable materials.

(iv) Techniques for bulk sampling.

(v) Sampling equipment the inspector should use.

(vi) Patching or repair of damage done in sampling.

(vii) An inspector's repair kit.

(viii) Discussion of polarized light microscopy.

(ix) Choosing an accredited laboratory to analyze bulk samples.

(x) Quality control and quality assurance procedures.

(J) Inspector respiratory protection and personal protective equipment to include the following:

(i) Classes and characteristics of respirator types.

(ii) Limitations of respirators.

(iii) Proper selection, inspection, donning, use, maintenance, and storage procedures for respirators.

(iv) Methods for field testing of the facepiece-to-mouth seal (positive and negative pressure fitting tests).

(v) Qualitative and quantitative fit testing procedures.

(vi) Variability between field and laboratory protection factors.

(vii) Factors that alter respirator fit, for example, facial hair.

(viii) The components of a proper respiratory protection program.

(ix) Selection and use of personal protective clothing.

(x) Use, storage, and handling of nondisposable clothing.

(K) Record keeping and writing the inspection report to include the following:

(i) Labeling of samples and keying sample identification to sampling location.

(ii) Recommendations on sample labeling.

(iii) Detailing of ACM inventory.

(iv) Photographs of selected sampling areas and examples of ACM condition.

(v) Information required for inclusion in the management plan by Section 203(i)(1) TSCA Title II*.

(L) Regulatory review to include the following:

(i) National Emission Standards for Hazardous Air Pollutants (NESHAP) found at 40 CFR 61, Subparts A (General Provisions) and M (National Emission Standard for Asbestos)*.

(ii) U.S. EPA worker protection rule found at 40 CFR 763, Subpart G*.

(iii) TSCA Title II*.

(iv) Occupational Safety and Health Administration (OSHA) asbestos construction standard found at 29 CFR 1926.1101* (Occupational Safety and Health Administration Occupational Exposure to Asbestos).

(v) OSHA respirator requirements found at 29 CFR 1910.134*.

(vi) The friable ACM in schools rule found at 40 CFR 763, Subpart E*.

(vii) Applicable state and local regulations and differences in federal or state requirements where they apply and the effects, if any, on public and nonpublic schools or commercial or public buildings.

(viii) 326 IAC 14-2, 326 IAC 14-10, this article, 329 IAC 10-4-2, ~~329 IAC 10-8-4~~ **329 IAC 10-8.1**, and any local or municipal regulations, ordinances, or other local laws pertaining to asbestos.

(M) Field trip comprised of a walk-through inspection to include the following:

(i) On-site discussion on information gathering and determination of sampling locations.

(ii) On-site practice in physical assessment.

(iii) Classroom discussion of field exercise.

(N) A course review of the key aspects of the training course.

(b) In order to qualify for approval, an asbestos management planner training course shall include a written examination as outlined in section 5 of this rule and meet the following requirements:

(1) Verify that each attendee possesses a current and valid inspector training certificate prior to admission to the management planner training course.

(2) An asbestos management planner training course shall be at least two (2) days in duration and shall include **the following:**

- (A) Lectures.
- (B) Demonstrations. ~~and~~
- (C) A course review.

Audiovisual materials shall be used to complement lectures where appropriate.

(3) An asbestos management planner training course shall adequately address the following topics:

(A) Course overview to include the following:

- (i) The role of the management planner.
- (ii) Operations and maintenance programs.
- (iii) Setting work priorities.
- (iv) Protection of building occupants.

(B) Evaluation and interpretation of survey results to include the following:

- (i) Review of TSCA Title II requirements for inspection and management plans as given in Section 203(i)(1) of TSCA Title II*.
- (ii) Interpretation of field data and laboratory results.
- (iii) Comparison between field inspector's data sheet with laboratory results and site survey.

(C) Hazard assessment to include the following:

- (i) Amplification of the difference between physical assessment and hazard assessment.
- (ii) The role of the management planner in hazard assessment.
- (iii) Explanation of significant damage, damage, potential damage, and potential significant damage.
- (iv) Use of a description (or decision tree) code for assessment of ACM.
- (v) Assessment of friable ACM.
- (vi) Relationship of accessibility, vibration sources, use of adjoining space, and air plenums and other factors to hazard assessment.

(D) Legal implications to include the following:

- (i) Liability.
- (ii) Insurance issues specific to planners.
- (iii) Liabilities associated with interim control measures and in-house maintenance, repair, and removal.
- (iv) Use of results from previously performed inspections.

(E) Evaluation and selection of control options to include the following:

- (i) Overview of encapsulation, enclosure, interim operations and maintenance, and removal.
- (ii) Advantages and disadvantages of each method.
- (iii) Response actions described via a decision tree or other appropriate method.
- (iv) Work practices for each asbestos project.
- (v) Staging and prioritizing of work in both vacant and occupied buildings.
- (vi) The need for containment barriers and decontamination in asbestos projects.

(F) Role of other professionals to include the following:

- (i) Use of industrial hygienists, engineers, and architects in developing technical specifications for asbestos projects.
- (ii) Any requirements that may exist for architect sign-off of plans.
- (iii) Team approach to design of high quality job specifications.

(G) Developing an operations and maintenance plan to include the following:

- (i) Purpose of the plan.
- (ii) Discussion of applicable U.S. EPA guidance documents.
- (iii) What actions should be taken by custodial staff.
- (iv) Proper cleaning procedures.
- (v) Steam cleaning and high efficiency particulate aerosol (HEPA) vacuuming.
- (vi) Reducing disturbance of ACM.
- (vii) Scheduling operations and maintenance for off-hours.
- (viii) Rescheduling or canceling renovation in areas with ACM.
- (ix) Boiler room maintenance.
- (x) Disposal of ACM.
- (xi) In-house procedures for ACM-bridging and penetrating encapsulants.
- (xii) Pipe fittings.
- (xiii) Metal sleeves.
- (xiv) Polyvinyl chloride (PVC), canvas, and wet wraps.
- (xv) Muslin with straps.

- (xvi) Fiber mesh cloth.
- (xvii) Mineral wool and insulating cement.
- (xviii) Discussion of employee protection programs and staff training.
- (xix) Case study in developing an operations and maintenance plan (development, implementation process, and problems that have been experienced).

(H) Regulatory review to include the following:

- (i) OSHA asbestos construction standard found at 29 CFR 1926.1101* (Occupational Safety and Health Administration, Occupational Exposure to Asbestos).
- (ii) The NESHAP found at 40 CFR 61, Subparts A (General Provisions) and M (National Emission Standard for Asbestos)*.
- (iii) U.S. EPA worker protection rule found at 40 CFR 763, Subpart G*.
- (iv) TSCA Title II*.
- (v) 326 IAC 14-2, 326 IAC 14-10, this article, 329 IAC 10-4-2, ~~329 IAC 10-8-4~~ **329 IAC 10-8.1**, and any local or municipal regulations, ordinances, or other local laws pertaining to asbestos.

(I) Record keeping for the management planner to include the following:

- (i) Use of field inspector's data sheet along with laboratory results.
- (ii) Ongoing record keeping as a means to track asbestos disturbance.
- (iii) Procedures for record keeping.

(J) Assembling and submitting the management plan to include the following:

- (i) Plan requirements in TSCA Title II, Section 203(i)(1)*.
- (ii) The management plan as a planning tool.

(K) Financing abatement action to include the following:

- (i) Economic analysis and cost estimates.
- (ii) Development of cost estimates.
- (iii) Present costs of abatement versus future operations and maintenance costs.
- (iv) Grants and loans under the Asbestos School Hazard Abatement Act (20 U.S.C. 4011 et seq.)*.

(L) A course review of the key aspects of the training course.

(c) In order to qualify for approval, an asbestos project designer training course shall include a written examination as outlined in section 5 of this rule and meet the following requirements:

(1) An asbestos project designer training course shall be at least three (3) days in duration and shall include **the following**:

- (A)** Lectures.
- (B)** Demonstrations.
- (C)** A field trip. ~~and~~
- (D)** A course review.

Audiovisual materials shall be used to complement lectures where appropriate.

(2) An asbestos project designer training course shall adequately address the following topics:

(A) Background information on asbestos to include the following:

- (i) Identification of asbestos.
- (ii) Examples and discussion of the uses and locations of asbestos in buildings.
- (iii) Physical appearance of asbestos.

(B) Potential health effects related to asbestos exposure to include the following:

- (i) Nature of asbestos-related diseases.
- (ii) Routes of exposure.
- (iii) Dose-response relationships and the lack of a safe exposure level.
- (iv) The synergistic effect between cigarette smoking and asbestos exposure.
- (v) The latency period of asbestos-related diseases.
- (vi) A discussion of the relationship between asbestos exposure and asbestosis, lung cancer, mesothelioma, and cancer of other organs.

(C) Overview of abatement construction projects to include the following:

- (i) Abatement as a portion of a renovation project.
- (ii) OSHA requirements for notification of other contractors on a multiemployer site 29 CFR 1926.1101* (Occupational Safety and Health Administration, Occupational Exposure to Asbestos).

(D) Safety system design specifications to include the following:

- (i) Design, construction, and maintenance of containment barriers and decontamination enclosure systems.
- (ii) Positioning of warning signs.

- (iii) Electrical and ventilation system lock-out.
 - (iv) Proper working techniques for minimizing fiber release.
 - (v) Entry and exit procedures for the work area.
 - (vi) Use of wet methods.
 - (vii) Use of negative pressure exhaust ventilation equipment.
 - (viii) Use of HEPA vacuums.
 - (ix) Proper cleanup and disposal of asbestos.
 - (x) Work practices as they apply to encapsulation, enclosure, and repair.
 - (xi) Use of glove bags and a demonstration of glove bag use.
 - (xii) Proper techniques for initial cleaning.
- (E) A field trip comprised of a visit to an abatement site or other suitable building site, including on-site discussions of abatement design, and building walk-through inspection, including discussion of rationale for the concept of functional spaces during the walk-through.
- (F) Employee personal protective equipment to include the following:
- (i) Classes and characteristics of respirator types.
 - (ii) Limitations of respirators.
 - (iii) Proper selection, inspection, donning, use, maintenance, and storage procedures.
 - (iv) Methods for field testing of the facepiece-to-face seal (positive and negative pressure fitting tests).
 - (v) Qualitative and quantitative fit testing procedures.
 - (vi) Variability between field and laboratory protection factors.
 - (vii) Factors that alter respirator fit, for example, facial hair.
 - (viii) Components of a proper respiratory protection program.
 - (ix) Selection and use of personal protective clothing.
 - (x) Use, storage, and handling of nondisposable clothing.
- (G) Additional safety hazards encountered during abatement activities and how to deal with them, including the following:
- (i) Electrical hazards.
 - (ii) Heat stress.
 - (iii) Air contaminants other than asbestos.
 - (iv) Fire and explosion hazards.
- (H) Fiber aerodynamics and control to include the following:
- (i) Aerodynamic characteristics of asbestos fibers.
 - (ii) Importance of proper containment barriers.
 - (iii) Settling time for asbestos fibers.
 - (iv) Wet methods in abatement.
 - (v) Aggressive air monitoring following abatement.
 - (vi) Aggressive air movement and negative pressure exhaust ventilation as a clean-up method.
- (I) Designing abatement solutions to include the following:
- (i) Discussions of removal, enclosure, and encapsulation methods.
 - (ii) Asbestos waste disposal.
- (J) Final clearance process to include the following:
- (i) Discussion of the need for a written sampling rationale for aggressive final air clearance.
 - (ii) Requirements of a complete visual inspection.
 - (iii) The relationship of the visual inspection to final air clearance.
- (K) Budgeting and cost estimation to include the following:
- (i) Development of cost estimates.
 - (ii) Present cost of abatement versus future operations and maintenance costs.
 - (iii) Setting priorities for abatement jobs to reduce costs.
- (L) Writing abatement specifications to include the following:
- (i) Preparation of and need for a written project design.
 - (ii) Means and methods specifications versus performance specifications.
 - (iii) Design of abatement in occupied buildings.
 - (iv) Modification of guide specifications to a particular building.
 - (v) Worker and building occupant health and medical considerations.
 - (vi) Replacement of ACM with nonasbestos substitutes.
- (M) Preparing abatement drawings to include the following:

- (i) Significance and need for drawings.
- (ii) Use of as-built drawings.
- (iii) Use of inspection photographs and on-site reports.
- (iv) Methods of preparing abatement drawings.
- (v) Diagramming containment barriers.
- (vi) Relationship of drawings to design specifications.
- (vii) Particular problems in abatement drawings.
- (N) Contract preparation and administration.
- (O) Legal liabilities and defenses to include the following:
 - (i) Insurance considerations.
 - (ii) Bonding.
 - (iii) Hold harmless clauses.
 - (iv) Use of abatement contractor's liability insurance.
 - (v) Claims-made versus occurrence policies.
- (P) Replacement of asbestos with asbestos-free substitutes.
- (Q) Role of other consultants to include the following:
 - (i) Development of technical specification sections by industrial hygienists or engineers.
 - (ii) The multidisciplinary team approach to abatement design.
- (R) Occupied buildings to include the following:
 - (i) Special design procedures required in occupied buildings.
 - (ii) Education of occupants.
 - (iii) Extra monitoring recommendations.
 - (iv) Staging of work to minimize occupant exposure.
 - (v) Scheduling of renovation to minimize exposure.
- (S) Relevant federal, state, and local regulatory requirements with a discussion of procedures and standards, including, but not limited to, the following:
 - (i) Requirements of TSCA Title II*.
 - (ii) The NESHAP, found at 40 CFR 61, Subparts A (General Provisions) and M (National Emission Standard for Asbestos)*.
 - (iii) OSHA standards for permissible exposure to airborne concentrations of asbestos fibers and respiratory protection found at 29 CFR 1910.134*.
 - (iv) EPA worker protection rule found at 40 CFR 763, Subpart G*.
 - (v) OSHA asbestos construction standard found at 29 CFR 1926.1101* (Occupational Safety and Health Administration, Occupational Exposure to Asbestos).
 - (vi) OSHA hazard communication standard found at 29 CFR 1926.59*.
 - (vii) 326 IAC 14-2, 326 IAC 14-10, this article, ~~329 IAC 10-4-2, 329 IAC 10-8-4~~ **329 IAC 10-8.1**, and any local or municipal regulations, ordinances, or other local laws pertaining to asbestos.
- (T) A course review of the key aspects of the training course.

(d) In order to qualify for approval, an asbestos project supervisor or contractor training course shall include a written examination as outlined in section 5 of this rule and meet the following requirements:

(1) An asbestos project supervisor or contractor training course shall be at least five (5) days in duration and shall include **the following:**

- (A) Lectures.
- (B) Demonstrations.
- (C) At least fourteen (14) hours of hands-on training.
- (D) Individual respirator fit testing. ~~and~~
- (E) A course review.

Audiovisual materials shall be used to complement lectures where appropriate.

(2) An asbestos project supervisor or contractor training course shall adequately address the following topics:

- (A) Physical characteristics of asbestos and ACM to include the following:
 - (i) Identification of asbestos.
 - (ii) Aerodynamic characteristics.
 - (iii) Typical uses.
 - (iv) Physical appearance.
 - (v) A review of hazard assessment considerations.

- (vi) A summary of abatement control options.
- (B) Potential health effects related to asbestos exposure to include the following:
 - (i) Nature of asbestos-related diseases.
 - (ii) Routes of exposure.
 - (iii) Dose-response relationships and the lack of a safe exposure level.
 - (iv) Synergism between cigarette smoking and asbestos exposure.
 - (v) Latency period for diseases.
- (C) Employee personal protective equipment to include the following:
 - (i) Classes and characteristics of respirator types.
 - (ii) Limitations of respirators and their proper selection, inspection, donning, use, maintenance, and storage procedures.
 - (iii) Methods for field testing of the facepiece-to-face seal (positive and negative pressure fitting tests).
 - (iv) Qualitative and quantitative fit testing procedures.
 - (v) Variability between field and laboratory protection factors.
 - (vi) Factors that alter respirator fit, for example, facial hair.
 - (vii) The components of a proper respiratory protection program.
 - (viii) Selection and use of personal protective clothing.
 - (ix) Use, storage, and handling of nondisposable clothing.
 - (x) Regulations covering personal protective equipment.
- (D) State-of-the-art work practices to include the following:
 - (i) Proper work practices for asbestos abatement activities, including descriptions of proper construction and maintenance of barriers and decontamination enclosure systems.
 - (ii) Positioning of warning signs.
 - (iii) Electrical and ventilation system lock-out.
 - (iv) Proper working techniques for minimizing fiber release.
 - (v) Use of wet methods.
 - (vi) Use of negative pressure exhaust ventilation equipment.
 - (vii) Use of HEPA vacuums.
 - (viii) Proper clean-up and disposal procedures.
 - (ix) Work practices for removal, encapsulation, enclosure, and repair of ACM.
 - (x) Emergency procedures for unplanned releases.
 - (xi) Potential exposure situations.
 - (xii) Transport and disposal procedures.
 - (xiii) Recommended and prohibited work practices.
 - (xiv) New abatement-related techniques and methodologies.
- (E) Personal hygiene to include the following:
 - (i) Entry and exit procedures for the work area.
 - (ii) Use of showers.
 - (iii) Avoidance of eating, drinking, smoking, and chewing (gum or tobacco) in the work area.
 - (iv) Potential exposures, such as family exposure, shall also be included.
- (F) Hazards encountered during abatement activities and how to deal with them, including the following:
 - (i) Electrical hazards.
 - (ii) Heat stress.
 - (iii) Air contaminants other than asbestos.
 - (iv) Fire and explosion hazards.
 - (v) Scaffold and ladder hazards.
 - (vi) Slips, trips, and falls.
 - (vii) Confined spaces.
- (G) Medical monitoring to include the following:
 - (i) OSHA requirements for a pulmonary function test.
 - (ii) Chest x-ray and a medical history for each employee.
- (H) Air monitoring procedures to determine airborne concentrations of asbestos fibers to include the following:
 - (i) A description of aggressive sampling.
 - (ii) Sampling equipment and methods.
 - (iii) Reasons for air monitoring.
 - (iv) Types of samples.

(v) Interpretation of results, specifically from analyses performed by polarized light, phase-contrast, and electron microscopy.
(I) Relevant federal, state, and local regulatory requirements with a discussion of procedures and standards to include the following:

- (i) Requirements of TSCA Title II*.
- (ii) NESHAP found at 40 CFR 61, Subparts A (General Provisions) and M (National Emission Standard for Asbestos)*.
- (iii) OSHA standards for permissible exposure to airborne concentrations of asbestos fibers and respiratory protection found at 29 CFR 1910.134*.
- (iv) OSHA asbestos construction standard found at 29 CFR 1926.1101* (Occupational Safety and Health Administration, Occupational Exposure to Asbestos).
- (v) EPA worker protection rule found at 40 CFR 763, Subpart G*.
- (vi) 326 IAC 14-2, 326 IAC 14-10, this article, 329 IAC 10-4-2, ~~329 IAC 10-8-4~~, **329 IAC 10-8.1**, and any local or municipal regulations, ordinances, or other local laws pertaining to asbestos.

(J) Respiratory protection programs and medical surveillance programs.

(K) Insurance and liability issues to include the following:

- (i) Contractor issues.
- (ii) Workers' compensation coverage and exclusions.
- (iii) Third-party liabilities and defenses.
- (iv) Insurance coverage and exclusions.

(L) Record keeping for asbestos abatement projects to include the following:

- (i) Records required by federal, state, and local regulations.
- (ii) Records recommended for legal and insurance purposes.

(M) Supervisory techniques for asbestos abatement activities to include supervisory practices ~~which~~ **that** enforce and reinforce the required work practices and discourage unsafe work practices.

(N) Contract specifications to include a discussion of key elements that are included in contract specifications.

(O) A course review of the key aspects of the training course.

(e) In order to qualify for approval, an asbestos worker training course shall include a written examination as outlined in section 5 of this rule and meet the following requirements:

(1) An asbestos worker training course shall be at least four (4) days in duration and shall include **the following**:

- (A)** Lectures.
- (B)** Demonstrations.
- (C)** At least fourteen (14) hours of hands-on training.
- (D)** Individual respirator fit testing. ~~and~~
- (E)** A course review.

Audiovisual materials shall be used to complement lectures where appropriate.

(2) An asbestos worker training course shall adequately address the following topics:

(A) Physical characteristics of asbestos to include the following:

- (i) Identification of asbestos.
- (ii) Aerodynamic characteristics.
- (iii) Typical uses.
- (iv) Physical appearance.
- (v) A summary of abatement control options.

(B) Potential health effects related to asbestos exposure to include the following:

- (i) Nature of asbestos-related diseases.
- (ii) Routes of exposure.
- (iii) Dose-response relationships and the lack of a safe exposure level.
- (iv) Synergism between cigarette smoking and asbestos exposure.
- (v) Latency period for diseases.
- (vi) Discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancer of other organs.

(C) Employee personal protective equipment to include the following:

- (i) Classes and characteristics of respirator types.
- (ii) Limitations of respirators and their proper selection, inspection, donning, use, maintenance, and storage procedures.
- (iii) Methods for field testing of the facepiece-to-face seal (positive and negative pressure fitting tests).
- (iv) Qualitative and quantitative fit testing procedures.
- (v) Variability between field and laboratory protection factors.

- (vi) Factors that alter respirator fit, for example, facial hair.
- (vii) The components of a proper respiratory protection program.
- (viii) Selection and use of personal protective clothing, use, storage, and handling of nondisposable clothing.
- (ix) Regulations covering personal protective equipment.
- (D) State-of-the-art work practices to include the following:
 - (i) Proper asbestos abatement activities, including descriptions of proper construction and maintenance of barriers and decontamination enclosure systems.
 - (ii) Positioning of warning signs.
 - (iii) Electrical and ventilation system lock-out.
 - (iv) Proper working techniques for minimizing fiber release.
 - (v) Use of wet methods.
 - (vi) Use of negative pressure ventilation equipment.
 - (vii) Use of HEPA vacuums.
 - (viii) Proper clean-up and disposal procedures.
 - (ix) Work practices for removal, encapsulation, enclosure, and repair.
 - (x) Emergency procedures for sudden releases.
 - (xi) Potential exposure situations.
 - (xii) Transport and disposal procedures.
 - (xiii) Recommended and prohibited work practices.
- (E) Personal hygiene to include the following:
 - (i) Entry and exit procedures for the work area.
 - (ii) Use of showers.
 - (iii) Avoidance of eating, drinking, smoking, and chewing (gum or tobacco) in the work area.
 - (iv) Potential exposures, such as family exposure.
- (F) Hazards encountered during abatement activities and how to deal with them, including the following:
 - (i) Electrical hazards.
 - (ii) Heat stress.
 - (iii) Air contaminants other than asbestos.
 - (iv) Fire and explosion hazards.
 - (v) Scaffold and ladder hazards.
 - (vi) Slips, trips, and falls.
 - (vii) Confined spaces.
- (G) Medical monitoring to include the following:
 - (i) OSHA and U.S. EPA requirements for a pulmonary function test.
 - (ii) Chest x-rays and a medical history for each employee.
- (H) Air monitoring to include procedures to determine airborne concentrations of asbestos fibers, focusing on how personal air sampling is performed and the reasons for it.
- (I) Relevant federal, state, and local regulatory requirements, procedures, and standards with particular attention directed at relevant U.S. EPA, OSHA, and state regulations concerning asbestos abatement workers with a discussion of procedures and standards to include the following:
 - (i) Requirements of TSCA Title II*.
 - (ii) NESHAP found at 40 CFR 61, Subparts A (General Provisions) and M (National Emission Standard for Asbestos)*.
 - (iii) OSHA standards for permissible exposure to airborne concentrations of asbestos fibers and respiratory protection found at 29 CFR 1910.134*.
 - (iv) OSHA asbestos construction standard found at 29 CFR 1926.1101*.
 - (v) EPA worker protection rule found at 40 CFR 763, Subpart G*.
 - (vi) 326 IAC 14-2, 326 IAC 14-10, this article, 329 IAC 10-4-2, ~~329 IAC 10-8-4~~, **329 IAC 10-8.1**, and any local or municipal regulations, ordinances, or other local laws pertaining to asbestos.
- (J) Establishment of respiratory protection programs.
- (K) A course review of the key aspects of the training course.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Board; 326 IAC 18-2-3; filed Sep 23, 1988, 1:45 p.m.: 12 IR 1250; filed Jul 6, 1989, 1:15 p.m.: 12*

IR 2028; errata filed Jul 18, 1989, 5:00 p.m.: 12 IR 2286; filed Jul 19, 1990, 4:50 p.m.: 13 IR 2116; filed Jul 5, 1995, 10:00 a.m.: 18 IR 2745; errata filed Jul 5, 1995, 10:00 a.m.: 18 IR 2795; filed May 12, 1998, 9:15 a.m.: 21 IR 3758; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1572; filed Aug 26, 2004, 11:30 a.m.: 28 IR 104; filed Feb 14, 2005, 11:15 a.m.: 28 IR 2030)

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